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4



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5



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6



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# Contents

TOEFL Listening Lecture 1	5
TOEFL Listening Lecture 2	10
TOEFL Listening Lecture 3	15
TOEFL Listening Lecture 4	20
TOEFL Listening Lecture 5	25
TOEFL Listening Lecture 6	30
TOEFL Listening Lecture 7	36
TOEFL Listening Lecture 8	42
TOEFL Listening Lecture 9	47
TOEFL Listening Lecture 10	52
TOEFL Listening Lecture 11	57
TOEFL Listening Lecture 12	63
TOEFL Listening Lecture 13	68
TOEFL Listening Lecture 14	74
TOEFL Listening Lecture 15	80
TOEFL Listening Lecture 16	85
TOEFL Listening Lecture 17	90
TOEFL Listening Lecture 18	96

TOEFL Listening Lecture 19	101
TOEFL Listening Lecture 20	106
TOEFL Listening Lecture 21	111
TOEFL Listening Lecture 22	116
TOEFL Listening Lecture 23	121
TOEFL Listening Lecture 24	126
TOEFL Listening Lecture 25	131
TOEFL Listening Lecture 26	136
TOEFL Listening Lecture 27	142
TOEFL Listening Lecture 28	147
TOEFL Listening Lecture 29	152
TOEFL Listening Lecture 30	157
TOEFL Listening Lecture 31	162
TOEFL Listening Lecture 32	168
TOEFL Listening Lecture 33	174
TOEFL Listening Lecture 34	179
TOEFL Listening Lecture 35	184
TOEFL Listening Lecture 36	189
TOEFL Listening Lecture 37	194
TOEFL Listening Lecture 38	199
TOEFL Listening Lecture 39	204
TOEFL Listening Lecture 40	209
TOEFL Listening Lecture 41	214
TOEFL Listening Lecture 42	219
TOEFL Listening Lecture 43	225

TOEFL Listening Lecture 44	230
TOEFL Listening Lecture 45	235
TOEFL Listening Lecture 46	239
TOEFL Listening Lecture 47	243
TOEFL Listening Lecture 48	248
TOEFL Listening Lecture 49	253
TOEFL Listening Lecture 50	258

# TOEFL Listening Lecture 1

*Listen to part of a university lecture on **World History**. The professor is discussing Kashmir.*

Professor: As part of our survey of Asian political history, class, I want to look now at a region that's been a battleground off and on for many, many centuries, including our own. I'm talking about the main bone of contention between two Asian nuclear states, between India and Pakistan. The United Nations' official name for this geopolitical region is 'Jammu and Kashmir', but usually, it is just called 'Kashmir' by the press.

Kashmir sits along the old Silk Road between the Middle East and the Far East, and through the centuries, it has seen many peoples and many rulers come and go: Greeks, Hindus, Buddhists, Moslems, Sikhs. Both Alexander the Great and Genghis Khan extended their empires through Kashmir. Its borders have changed over the years, but today it includes contested areas that are administered by China, India and Pakistan, and it's been the scene of at least three border wars just in the late twentieth century.

Looking back: according to the Mahabharata, the great Sanskrit epic of ancient India, which was written between the fourth century BC and the fourth century CE, Kashmir thrived under a republican

government during the great Vedic civilization of the first millennium BC, and in the first to fifth centuries of this era, it became an important center of Buddhism and Hinduism. Then, in 1349, the Swati dynasty, the first Muslim rulers, came to power, and the region then remained under Muslim rule for the next five hundred years.

We know a good deal about Kashmir's history because of a Sanskrit composition called the 'Rajatarangini'- the 'Chronicles of the Kashmiri Kings'- written by Kalhana. It's the first of a series of four works on Kashmiri history, and it's considered by authorities to be a reasonably reliable one. It was composed in the mid-12th century, but it refers to earlier texts that unfortunately no longer exist. The Rajatarangini records the period from Kashmir's very early traditional history up to 1006 CE. From this point, a second book, by Jonaraja, takes over, and it brings the history into the Muslim period and up to the year 1412. The third work, by Srivara, covers the years from 1412 to 1486, and then the fourth book, Prajnia Bhatta's 'Rajavalipataka', carries the history to the point where Kashmir becomes part of the vast Muslim Moghul Empire in 1588.

Over its long history, many of Kashmir's rulers have been very tolerant of all religions, but several Muslim sultans were not, and the most infamous of these was Sultan Sikandar Butshikan, who ruled between 1389 and 1413. He forbade anyone who was not a Muslim from living in Kashmir, and many of the Hindus poisoned themselves rather than leave their homeland or forswear their religion. Sikander persecuted those who remained and ordered

all the temples destroyed and all of their religious images broken, and consequently, he gained the epithet of 'Destroyer of Idols'.

Anyway, the Moghul Empire endured from 1526 to 1740, followed by the Afghan Durrani Empire from 1750 to 1820, and then the Sikhs, under Ranjit Singh. (You don't have to remember all these dates and empires, by the way- I just want you to get a brief taste of the cultures that've flowed through Kashmir.)

In 1845, the first war between the Sikhs and the British led to the Amritsar Treaty, through which the Sikhs continued to rule Kashmir under the 'paramountcy' or 'tutelage' of the British Empire. Kashmir- like several other areas of British India- became 'princely states' that paid taxes to the British Crown. The princely state of Jammu and Kashmir was very artificially constituted, because it combined different religions and regions and ethnicities- the accumulation of two millennia of successive civilizations- of Vedic, Persian, Indo-Greek, Turko-Mongol, Islamic and Sikh cultures.

The Amritsar Treaty held good from 1846 until 1947, when Mohandas K Gandhi convinced the British government to give up their Empire, and British India was divided into two independent nations, Muslim-majority Pakistan and Hindu-majority India. Both of these new nations had agreed that all of the 'princely states' had the right to choose which of the two new countries they would join. But even though Kashmir was over seventy percent Muslim, its Sikh maharaja, Hari Singh, hesitated to join Pakistan. When Singh hesitated, Pakistan invaded Kashmir, and when Pakistan invaded, the maharaja asked India for help. India agreed- on the condition that the maharaja choose to join India. Hari

Singh agreed to this, and India sent troops into Kashmir and blocked Pakistan's advance.

The state was soon divided into a Pakistani-controlled section and an Indian-controlled section, divided by what is aptly called the 'Line of Control'. And although the United Nations asked for troop withdrawals by both countries, and although it asked for a Kashmiri plebiscite on the issue to determine the wishes of the people themselves, neither one has happened between 1948 and today. The only dramatic change since then has been the 1962 Indo- Chinese border war, which resulted in China's also claiming a piece of the Kashmir pie, and today, tensions remain high and the threat of war- even nuclear war- persists in this volatile region.

1. What is this lecture mainly about?

- (A) The India-Pakistan conflict over Kashmir
- (B) The evolution of Kashmir's government
- (C) The political history of Kashmir
- (D) The Muslim takeover of Jammu and Kashmir

2. Who was known as the 'Destroyer of Idols'?

- (A) Sikandar Butshikan
- (B) Hari Singh
- (C) Genghis Khan
- (D) Prajnia Bhatta

3. Which is NOT true of Kashmir?

(A) It is partitioned into three sectors. (B) Its people are mostly Muslim.

(C) It is located in the Far East.

(D) It is multicultural.

4. Which adjective best describes the professor's lecture?

(A) superficial (B) meticulous (C) unbiassed (D) prejudicial

5. Which word is a synonym of 'paramountcy' in this lecture?

(A) tutelage (B) dynasty (C) princely (D) chronicle

6. How is this lecture organized?

(A) By region (B) By religion (C) By treaty (D) By empire

# TOEFL Listening Lecture 2

*Listen to part of a university lecture on **the Matter of Britain** by a professor of Literature.*

Professor: Today, we're going to start on the Matter of Britain, and the core of the Matter of Britain is, of course, the stories of King Arthur, of King Arthur and his Knights of the Round Table. I'm sure you're all familiar with the basic cast of characters- King Arthur and Queen Guinevere; their evil nephew, Mordred; Merlin the magician, Sir Launcelot, Sir Gawain, Sir Galahad and the hunt for the Holy Grail, and so forth.... Anyway- some of you may think that King Arthur, shorn of some of these tales, of course, was a real historical personage. And others of you probably think he was just a legend. But the truth is, nobody knows the truth.

The real King Arthur, if he was real, probably lived during the fifth century AD, as a Romano- Celtic leader who fought against the invading Anglo-Saxons. However, this was long before any reliable records of English history came into existence. Arthur is never mentioned by name in the Anglo-Saxon Chronicle, which dates from the late ninth century, and he is not mentioned in Bede's Ecclesiastical History from the eighth century, and he doesn't appear in any other manuscript between 400 and 850 AD, even though some of them do record the Battle of Mount Badon, between the Britons and the Anglo-Saxons- which was a very real

event, a major political victory, at the end of the fifth century- which later writers insist Arthur participated in.

The first texts that mention him are the *Historia Brittonum*, which is a Latin history compiled by Nennius in the late ninth century, and also the *Annales Cambriae*, the Welsh Annals, written in the tenth century. Both of these mention Arthur's part in the Battle of Mount Badon- though he was not called a king- but these texts were written at least 400 years after the event. And this is as much as we actually know about the historical Arthur.

It's with Geoffrey of Monmouth's *Historia Regnum Britanniae*, written much later, in 1138, that the legend of King Arthur really took off. Geoffrey created an imaginative, full-blown narrative of Arthur as a King of Britain who defeated the Anglo-Saxons and then established his wonderful empire over Britain, Ireland, Iceland and Gaul. Geoffrey also created Merlin the magician, Arthur's sword Excalibur, and most of the other elements and incidents that are still a fundamental part of the legend.

Geoffrey's "history" became immensely popular in Britain, and then it spread to the continent, where it was picked up by a greater writer, the French poet, Chretien de Troyes, who added Sir Launcelot and the quest for the Holy Grail. Chretien wrote several Arthurian romances between 1170 and 1190, and it was these that had the greatest influence on both the spread of Arthur's legend and the elaboration of the medieval romance, the vehicle that became so closely associated with this kind of story of chivalry.

These sort of romances remained very popular all through the Middle Ages, and the culmination of the development of the medieval Arthurian romance cycle was Thomas Malory's 15th-century *Le Morte d'Arthur*, which is a re-telling of the whole set of incidents and adventures in a single English work. *Le Morte d'Arthur* was one of the earliest books printed by William Caxton, in 1485, so Malory's romance was disseminated very widely and very quickly, and essentially all later works on Arthur and his knights are derived from Malory's compendium.

The most popular current theory is that the Arthurian legend is ultimately derived from Celtic mythology. Traditional Welsh, Cornish and Irish heroic tales- which include elements of essentially all of Arthur's doings- these tales probably mixed together, and the resultant hero, Arthur, was then carried to the continent with the Norman armies. By 1100 AD, the tales had reached as far as Italy.

But social changes and the Renaissance brought the end of the Medieval period and people lost interest in the romance of chivalry. The printing of Malory's *Le Morte d'Arthur* in 1634 was the last one for two hundred years.

Finally, in the early 19th century, the literary revival of Romanticism, of medievalism, of the idea of chivalry, revived the Arthur legend again. *Le Morte d'Arthur* was finally reprinted in 1816. William Wordsworth wrote *The Egyptian Maid*, the story of a young girl brought to Arthur's court, in 1835, and then Alfred Lord Tennyson wrote his immensely popular *Idylls of the King* in 1859.

Idylls of the King put a Victorian veneer onto the entire Arthur narrative.

Now, I'd like you to read over these passages that I'm handing out- some excerpts from both Malory's Morte d'Arthur and Tennyson's Idylls of the King- and then please be ready to contrast and compare them in Friday's class. And feel free to read more of each of them if you have time. Both are available on the internet.

1. Judging from this lecturer, which statement would the professor most likely agree with?

- (A) Arthur was a real person, and probably a king.
- (B) King Arthur defeated the Anglo-Saxons at the Battle of Mount Badon.
- (C) Arthur was perhaps a real person.
- (D) King Arthur was finally defeated by the Anglo-Saxons at the Battle of Mount Badon.

2. Which text first mentions Arthur?

- (A) Bede's Ecclesiastical History (8th C)
- (B) The Anglo-Saxon Chronicle (9th C)
- (C) The Historia Brittonum (9th C)
- (D) The Annales Cambriae (10th C)

3. Who wrote Morte d'Arthur?

- (A) Thomas Malory
- (B) Chretien de Troyes
- (C) Geoffrey of Monmouth
- (D) William Caxton

4. According to the lecturer, what is probably the original source of the Arthurian legend?

- (A) French romances
- (B) The Idylls of the King
- (C) The Welsh Annals
- (D) Celtic myth

5. Why does the professor mention Wordsworth's The Egyptian Maid?

- (A) It's an early example of the Romantic revival.
- (B) It's the culmination of the development of medieval romance.
- (C) It shows how widely the Arthurian legend spread.
- (D) It caused the re-printing of Morte d'Arthur after 200 years.

6. Which of the following probably did NOT contribute to the loss of interest in King Arthur between 1650 and 1800?

- (A) The Industrial Revolution
- (B) The Renaissance
- (C) World exploration and empire-building
- (D) The development of the Scientific Method

# TOEFL Listening Lecture 3

*Listen to part of a university lecture by a professor of **Comparative Religion**.*

Professor: Good afternoon, class. In the course of this term, we've examined all the major contemporary religions of the world- Christianity, Islam, Buddhism, Confucianism, uh, Taoism, Hinduism- in depth. But before your final examination, I also want to spend a couple of classes looking at some of the more interesting minor religions, and I'd like to start with a very simple, harmless religion that managed to have a disproportionately large influence on world history. And that religion is Shintoism, or Shinto, which is the indigenous religion of Japan.

There was no historical founder of Shinto, like Buddha or Mohammad. And Shinto has no sacred texts. It has no images or icons, it has no laws or commandments. It emerged organically, from prehistoric nature worship- a sort of animism- and the ancestor worship, of the earliest Japanese people. And- with due allowance for the general advance of civilization- it has remained surprisingly unchanged from that primitive condition.

Its basic concept is that virtually every natural object is inhabited by a 'kami'- variously translated as a 'spirit' or 'god'- and that all kami are worthy of reverence and respect. One enterprising anthropologist has estimated that there are some 800,000 of

these kami enshrined all over Japan. These spirits dwell mostly in nature, in the features of nature- in mountains and rivers, in waterfalls, in trees, in the winds, in the sun, in the sea, and so on. And also inhabiting these regions are the spirits of our deified ancestors. Showing respect to these kami and to our ancestors will be rewarded by their patronage and by good luck in the vicissitudes of life. And that's about it. That's all there is to the theology of Shintoism.

There are innumerable Shinto shrines established throughout Japan, and they're for the most part relatively very simple structures, usually located in a quiet natural setting- even if they're in the center of a city- usually hidden away within a grove of fine old trees. They're distinctively marked by 'torii', which are a traditional gateway. Torii are composed of two tall uprights and two crossbars at the top, and usually painted bright red. These gates set off the mundane world from the spiritual world. When you pass under the torii, you leave everyday life and enter the world of the kami. Different gods are enshrined in each shrine- a particularly fine old cedar tree, for instance, or a local hilltop, or, as in the case of the politically-sensitive Yasukuni Shrine in Tokyo, the spirits of the war dead.

Now, in the eighth century A.D., Buddhism arrived from China, along with many other aspects of Chinese culture, and it soon became established in Japan, both mixing with Shinto and also co-existing with it. Then later, in the long feudal period from the 17th to the 19th centuries, Buddhism, and also Confucianism, became tools of the shoguns, the powerful Tokugawa regime. However, with the succeeding Meiji Restoration in 1868- the

restoration of political power to the emperor and the rapid social and technological modernization of the country- Japan's nationalistic scholars turned back to pure Shintoism as part of the unique Japanese identity, and in the 1880s, State Shinto was formalized as the national religion of Japan.

And this leads us nicely to what I mentioned before- the contribution of Shinto to world history. Now, the pre-eminent Shinto kami is Amaterasu Omikami, the sun goddess- she's on their national flag, you may have noticed- and Amaterasu Omikami is also traditionally considered to be the founder of the long dynasty of Japanese emperors. This genealogy, of course, makes the emperor divine. And in the 1930s, this divinity of the emperor was used by the militarists and the ultra-nationalists to promote their agenda and to galvanize the Japanese people for the expansionist policy that ultimately led to the political and human disaster of the Second World War in the Pacific.

After the war, in 1945, Japan's new Constitution included articles both renouncing war and renouncing the divinity of their emperor, but today the emperor still remains as a figurehead of reverence for the people. Amaterasu Omikami's shrine, the shrine of Ise, is still a national magnet of pilgrimage for those who want to pay their respects to the emperor and, through him, to Japan.

Without religious commandments or a real theology, Shinto doesn't really impact morally on Japanese society, but its influence in daily life is still considerable. Special days of worship come at key points in people's lives- births, coming-of-age, weddings, rice-planting and harvesting, at house-raising and at

equinoxes, et cetera- and many shrines hold their own 'matsuri's, or festivals, to celebrate their foundation or their resident kami. And these are always occasions for eating and drinking, for entertainment and merriment, and for community socializing. Shinto, but a very benign version, is still very much alive in Japanese culture.

1. Based on this lecture, how would the professor most probably categorize Shinto?

(A) A minor but dangerous religion

(B) A main force in world history

(C) A minor, insignificant religion

(D) A local religion of some interest

2. According to one source, about how many gods does Shinto have?

(A) 800 (B) 8,000 (C) 80,000 (D) 800,000

3. Why does the lecturer mention Tokyo's Yasukuni Shrine?

(A) As an example of different enshrined spirits

(B) As a warning against hero worship

(C) As an exception to Japan's renunciation of war

(D) As proof of the importance of Shinto

4. According to the lecture, which is NOT true of Amaterasu Omikami?

(A) She is the spirit of the sun.

(B) She is on the Japanese flag.

(C) She was revered by the Tokyugawa shoguns.

(D) She founded the Imperial family.

5. What is a 'torii'?

(A) An entrance (B) A ceremony (C) A shrine (D) A festival

6. Which statement would the professor most probably agree with?

(A) Few Japanese now practice Shintoism.

(B) Shinto is a relatively primitive religion.

(C) Shinto has had a strong influence on Japanese morality. (D)

Shintoism is a highly-structured religion.

# TOEFL Listening Lecture 4

*Listen to part of a university lecture by a professor of **Animal Behaviour**.*

Professor: Good morning, class. It's a beautiful spring day outside, isn't it? We'll soon be seeing the first robin of spring- and so, it's a perfect day to begin talking about migration. Migration is the main strategy that animals have for avoiding adverse environments and taking advantage of rich environments. Of course, there are other strategies, too- hibernation, for example- but far and away the most common way for animals to escape poor conditions and get to better ones is by migration- a mass journey from one place to the other.

Now there are all kinds of migrations, but the most familiar one is the sort that our robins will be experiencing- a seasonal, latitudinal migration. In the fall, the birds fly south, and in the spring they fly north again. In the southern hemisphere, of course, this works in the opposite direction. In both hemispheres, migrants move toward the equator when the earth chills and toward the poles when it warms. This is the way that species have been able to colonize, to use those subpolar resources that are seasonally difficult to access, that are unavailable to many living things for half the year.

Birds are certainly the most conspicuous latitudinal migrants, and they're also the most awesome. Most famously, the Arctic Tern, which is a small seabird, migrates from one pole to the other, all the way from the arctic subpolar region to the antarctic subpolar region- and back again- annually. These birds travel roughly 70,000 kilometers a year!

Another kind of seasonal migration is altitudinal migration, which is where animals move vertically rather than to a different region of the earth. They go up the mountain in the spring and down it in the winter. The Dall Sheep of the American Rocky Mountains are good examples of this. In the spring, they follow the melting snow up to higher elevations, where they can feed on fresh plant growth and be safer from enemies, and then in the fall, when the snow begins to cover the mountain tops, they work their way back down to lower areas that are free of snow and more protected from the elements.

In regions with irregular climate patterns, some animals are nomadic- that is, they just kind of wander around from one area to another as, for instance, the rains bring fresh plant growth to these different places. The gnus, antelopes and other grazing animals of east Africa do this, wandering around the famous Serengeti Plain to where the grass is greenest.

Now most such migrations are undergone in search of food and water, but there are also reproductive migrations, where the purpose is to find a habitat that is safe and secure for the young. This accounts for the migration, for instance, of Grey Whales, who

leave the food-rich waters of the north Pacific and travel to the protected waters of the Gulf of California to give birth.

Some animals, like our Arctic Tern, travel thousands of kilometers a year, and the most amazing thing is that many of them arrive in very specific places, in almost the same place, year after year. The Pacific salmon return after four or five years of wandering around the open ocean, swim up the rivers they originally emerged from, and arrive back at the same little branch of the same stream that they hatched in. How do animals do that, how do they navigate great distances so accurately- and with just the right timing?

Well, the answers seem to be multiple. Some migrants just seem to follow coastlines and mountain ranges and other landmarks- which is what many of the North American songbirds seem to do, following well-established 'flyways' down both coasts and along the Rocky Mountains, and along the Mississippi River- and they either remember them, or they are genetically programmed to recognize them, or more likely a bit of both. Other animals use their other senses to help them get where they're going. Research has revealed that our salmon are able to recognize the fine differences in the composition and concentration of the waters flowing from different sources, so that for the salmon, each little stream has its own unique flavour, and they can follow that flavour all the way up the river to their birthplace.

Other migrants have evidently evolved very sophisticated navigation systems that use the sun and the stars, or use day length or polarized light, or even use the Earth's magnetic field, as timers and direction finders. Studies of loggerhead turtles, for

instance, have shown that their hatchlings can sense the strength and direction of this geomagnetic field and use it when they first put to sea to follow the traditional routes of their parents.

But we still have a lot more to learn about these mechanisms, and about the evolution that has created these ways of species success in a harsh world. The earliest recorded observations of animal migration were over three thousand years ago, in the works of Aristotle and Hesiod, but we have still just begun to fully understand the migratory urge.

1. Why does the professor mention the weather at the beginning of his lecture?

- (A) To relax the students before his talk
- (B) To draw the students away from their textbooks
- (C) To direct the students' attention to the topic
- (D) To demonstrate how far birds can migrate

2. How has the professor organized his presentation of migration?

- (A) By function
- (B) By species
- (C) By distance
- (D) By region

3. According to the lecture, what is the main difference between altitudinal and latitudinal migration?

- (A) The length of the migration
- (B) The seasons of migration

(C) The frequency of migration (D) The direction of migration

4. Based on the professor's remarks, what does "nomadic" mean?

(A) Wandering (B) Seasonal (C) Travelling (D) Regional

5. Which is NOT included as a method of animal navigation?

(A) Sight (B) Touch (C) Taste (D) Geomagnetism

6. In 1822, some White Storks in the village of Klutz, Germany were discovered to be embedded with African arrows. What does this tell us about them?

(A) Storks are probably reproductive migrants.

(B) Storks probably hibernate in Africa.

(C) Storks are probably unwelcome in Germany.

(D) Storks are probably latitudinal migrants.

# TOEFL Listening Lecture 5

*Listen to part of a university lecture by a professor of **Art**.*

Professor: I noticed on my way to class today that someone has spray-painted an image of our school mascot- you know, a wolverine- with the slogan "Go Wolverines!" on the wall of the Student Union. Have any of you seen that yet? I guess they're just expressing their enthusiasm for the football season. It's not a very artistic effort, but it is a perfect example of the kind of modern art I want to talk about today: graffiti.

Of course, graffiti is not modern at all. The earliest known examples are around 2000 years old. When Mount Vesuvius buried the Roman city of Pompeii under lava during its eruption in 79 AD, it preserved all kinds of graffiti, or wall messages,- magic spells, curses, declarations of love, political slogans, literary quotations, all sorts of messages- just like our modern graffiti. The Mayans scrawled sayings on their temples in Guatemala. The Vikings scratched their initials on New Grange Mound in Ireland. And the Vandals- no pun intended- carved runes on the Hagia Sophia in Constantinople. So defacing public property with graffiti has been a universally popular pastime since the world's earliest history.

Actually, we could go a lot further back into prehistory for examples, to the famous cave paintings of Lascaux, for instance-

but these probably don't fit the definition, since a main characteristic of graffiti is that it's drawn or written on someone else's property without permission- and consequently with some haste! By definition, graffiti- the singular is "graffito"- is the name for lettering or images that are illegally scrawled, scratched, sprayed or painted in any way on property. Nowadays, there are four general sorts of graffiti- gang graffiti, socio- political graffiti, expressive or humorous graffiti, and public art.

Gang graffiti appeared after World War Two, when our cities were getting much bigger, and the social stresses and strains of urban living led to the rise of urban gangs- groups of boys and young men who lived in different parts of a city, and who marked their territories, or "tagged" them, with identifying signs and logos painted on boundary walls and buildings to warn other gangs away.

And these days, you can see a lot of political graffiti just by watching the evening news from the Middle East or other areas of conflict. On the buildings in the background you can see slogans calling for "Liberty" or "Free Speech" or "Jihad" or other social changes. In the US, in the late sixties, "Free Huey" was a widespread urban graffito that called for the release of Huey Newton, a member of the Black Panthers, which was an African-American revolutionary organization. He'd been unjustly imprisoned for murder, but he was later released.

You can also find humorous, expressive, generally harmless graffiti in the toilet stalls of any bar or college campus. "Kilroy was here"- "What, me worry?"- "Make love, not war". Dozens of these old

chestnuts, along with many new and imaginative comments, adorn our public lavatories- people just expressing themselves, and often in very funny ways.

All of these kinds of graffiti are very interesting as artifacts of human nature- and ancient graffiti can tell anthropologists a lot about daily life in earlier times. Mistakes in grammar or spelling can tell us something about the level of literacy in ancient cultures, and Roman graffiti has also helped us determine the pronunciation of spoken Latin, for instance. Old graffiti can also help us piece together history. "Signature Rock", for example, a national landmark on the Oregon Trail, records the names and dates of many of the early pioneers that passed along that route into the American West.

But for me, what is most heartening is how some of the creations of these "writers", as they are called, some of their creations have risen to the level of art, of public art. They have grown beyond the simple "bubble" lettering and the sometimes crude expressions, and they have made a greater statement about life and about people and about the world. Although the designs may be more influenced by the need for speed in executing them, they are also often distinctive and memorable, and some of their writers are now recognized, respected muralists. Unfortunately, once he's given a canvas to work on and once he's paid for his effort, the writer no longer qualifies to be called a graffiti "writer"- he's now an Artist.

1. Why does the lecturer mention the school mascot at the beginning of his talk?

- (A) To alert his students
- (B) To present an exception to the rule
- (C) To define "graffiti"
- (D) To introduce his topic

2. Why do the Lascaux cave paintings probably NOT qualify as graffiti?

- (A) They are prehistoric.
- (B) They were painted quickly.
- (C) They were painted by the cave's inhabitants.
- (D) Their artists did not sign their works.

3. According to the lecturer, which probably contributed most to the appearance of gang graffiti?

- (A) Aerosal spray paint
- (B) Urban stress
- (C) Immigration
- (D) Human expression

4. Who was Huey Newton?

- (A) A political activist
- (B) A "writer"
- (C) A gang member
- (D) A public artist

5. Judging from the lecture, what does the word "bubble" refer to?

(A) Humorous graffiti (B) A slogan or logo

(C) The economy (D) A writing style

6. How does the lecturer organize the types of graffiti?

(A) By function (B) By chronology (C) By location (D) By technique

# TOEFL Listening Lecture 6

*A lecture from an **american literature** class.*

Professor: Today we are going to study one of my favorite American poets, writer and musician, Carl Sandburg. I admire this man of many talents. Have any of you heard of him?

Student 1: Yeah, I thought he was from Sweden. Student 2: I read that he was a hobo. (Laughter)

P: Actually, Sandburg was born in Galesburg, Illinois. It was his parents, August and Clara who had emigrated from Sweden. Yes, he had been a hobo, we'll discuss that later. (um) The family name was actually "Johnson" but when August went to work for the railroad, there was another person with the same name, so he changed it to Sandburg. He and Clara had seven children, instilling in them the importance of hard work and a good education; this was thought to be the only way to achieve the "American Dream."

S1: What does that mean exactly?

P: Good question! Basically, it means life should be better for everyone, not just a few. The term was first used in the book, The Epic of America which we will be reading later in this course. (Clears throat) Now let's get back to Sandburg...

P: When he entered first grade, Carl asked to be called by the name, "Charlie," as he thought it sounded more like an American name. From then on, he signed his papers as "Charles A. Sandburg." He dropped out of school at the end of eighth grade and went to work to help support the family by delivering milk and newspapers.

P: But he wanted to travel. He borrowed a railroad pass from his father and in 1896 traveled to Chicago. Later, Sandburg joined thousands of American hoboes who hid in boxcars to travel through Iowa, Missouri, Kansas, Nebraska and Colorado.

S1: Were they just "bums" who didn't want to work?

P: Many of them were looking for jobs, some just wanted an adventure.

P: (Clears throat) After a few months of traveling, Sandburg returned to Galesburg and tried working as a housepainter. That didn't last very long. He then enlisted for service in the Spanish-American War. The war ended six weeks later and as a veteran, he qualified for a free college education. He tried attending the U.S. Military Academy in West Point. Unfortunately, his grades (false start) he failed the mathematics and grammar tests and was denied entrance.

P: Imagine, only having a middle school education and being expected to pass college exams, could you do it?

S1: not me!

P: Well, Sandburg was able to attend Lombard College in Galesburg. He developed a real love for reading and writing

poetry. However, he left college without graduating and once again, as the expression goes, "He heard the call of the open road."

P: This time his travel took him to Milwaukee, Wisconsin where he met Lilian Steichen. They married the next year. She encouraged him to use his original name of "Carl" in his writings.

P: Now I'm sure most of you have heard of European fairy tales....

S1: Like Jack and the Beanstalk?

S2: How about Tom Thumb?

P: Yes, those are definitely good examples. Sandburg read some of them to his three daughters who could not relate to stories of kings, queens, or talking animals. He was inspired (false start) He wanted to write American fairy tales, something with skyscrapers or trains. Does anyone have an idea why this concept would be important to him? Miss Powell?

S1: Well, not many American children would ever see a king or queen....

S2: or hear a talking animal! (Laughter)

P: Please continue, Miss Powell.

S1: I just think most children could relate to stories about trains or skyscrapers. P: Very good. So did Sandburg who wrote The Rutabaga Tales for children.

P: During his lifetime, Sandburg won three Pulitzer Prizes, two for his poetry and one for his biography of Abraham Lincoln.

P: Carl Sandburg's last move was to Flat Rock, North Carolina, in 1945 where he continued to write until his death in 1967.

P: Throughout the United States, there are numerous memorials dedicated to Sandburg: colleges and schools have been named after him. On January 6, 1978, the United States Postal Service issued the Carl Sandburg stamp. Amtrak added a second train named the Carl Sandburg to the line. This writer's life was even portrayed in a musical, "The Courtship of Carl Sandburg." He was a prolific writer of poetry, music and stories.

1. What aspect of Carl Sandburg's life does the professor mainly discuss?

- (A) Explaining why Sandburg was a hobo.
- (B) Relating his parent's nationality.
- (C) He changed the family name from Johnson.
- (D) Providing background information.

Narrator: Listen again to part of the passage and answer the following question(s).

Professor: Actually, Sandburg was born in Galesburg, Illinois. It was his parents, August and Clara who had emigrated from Sweden. Yes, he had been a hobo, we'll discuss that later. (um) The family name was actually "Johnson" but when August went to work for the railroad, there was another person with the same name, so he changed it to Sandburg. He and Clara had seven children, instilling in them the importance of hard work and a

good education; this was thought to be the only way to achieve the "American Dream."

2. What is the professor's opinion of Sandburg?

- (A) He was too lazy to keep a job.
- (B) The professor admired his many talents
- (C) Sandburg was not a good student.
- (D) He was a good soldier.

3. What is meant by the term "The American Dream?"

- (A) Life should be better for everyone, not a few.
- (B) Hard work and education equals success.
- (C) A student must attend college.
- (D) Anyone can buy a house.

4. Why did Sandburg want to write American children's stories?

- (A) He heard many stories from hoboes.
- (B) He didn't like stories of talking animals.
- (C) Children could not relate to European stories.
- (D) His daughters wanted to see a king.

5. As a child, why did Carl want to be called, "Charles?"

- (A) It sounded more American.
- (B) He didn't like his name.
- (C) It was difficult to pronounce.
- (D) Children teased him about his name.

6. How did Sandburg's travel have an effect on his writing?

- (A) It related war stories.
- (B) It made him want to settle in Galesburg.
- (C) It gave him the opportunity to work on the railroad.
- (D) It provided material for his writings.

# TOEFL Listening Lecture 7

*Listen to part of a university lecture by a professor of*  
**Sociobiology.**

Professor: Well, it looks like everybody's here, so I'd like to welcome you all to Sociobiology 101. Some of you are Sociology majors, I know, and others of you are in the Biology Department, so I think the first thing I should do is give you all an idea of what sociobiology is all about. It's a relatively new field. The word "sociobiology" didn't even exist until 1946, and it wasn't really noticed until after 1975, when the great entomologist, Edward O. Wilson, discussed it in his book, *Sociobiology: The New Synthesis*. It was after this book was published that sociobiology really exploded into an exciting new field of research.

What is it that Dr. Wilson synthesizes in his book? Well, briefly, because we'll be getting into this later, Wilson wanted to use the theories of biological evolution and natural selection- you know, Darwin's theories- and apply them to explain the development of social behaviors, just as Charles Darwin used them to explain the development of animals' physical, morphological, characteristics.

Wilson's research was mostly on ants, and he was interested in the reasons for their complex social behaviours, like division of labor, like mating and parenting- and he was especially interested in the idea of altruistic behaviour, of altruism. Now, you should already

know that word. "Altruism" is the act of helping someone else when the action does not seem to help you yourself.

Now, ants and their relatives, the bees and the termites- what we call the "social insects"- are consummate altruists. Almost all the members of their colonies are sterile female workers who never get a chance to reproduce. Instead, they spend their lives defending and taking care of the nest and their queen and the queen's offspring. It's only the queen who gets to pass along her genes to the next generation. Wilson wondered why this was, why such a system would evolve, why an organism would forgo its own genes in deference to another's. He knew that there must be some advantage to this, so he set out to discover what that advantage might be.

I'm sure you all know the old conundrum about "what came first, the chicken or the egg?"- and also the slightly humorous idea that "a chicken is just an egg's way of producing another egg." Well, that's essentially what the basis of Wilson's theory is- that an organism is just a gene's way of producing another gene. Dr. Wilson thought that the genes of all the members of an ant colony are so similar that a worker ant is really taking care of its own genes when it takes care of the queen's offspring. And if such a colony is more successful, if it has a better chance of surviving, because of this specialization of labor- because the workers specialize in working and the queen specializes in laying eggs- then evolution will support this altruistic behaviour.

Well, this is just an example, but the initial work by Wilson and other evolutionary biologists- like William Hamilton and, uh, like

Maynard Smith- laid the groundwork for what's now a very rich and exciting area of research- sociobiology, the study of the biological basis of social behaviour.

Now, the scientific community were all very enthusiastic about these new ideas- until sociobiologists began to apply Darwin's theories to human social behaviour. That's when the trouble started- because many scientists and philosophers and theologians are unwilling to accept that Man is just another animal. They insist that it's man's environment, the society that he's raised in- it's his culture and his education- that determine his behaviour and his actions- and not his genetic make-up. Some even say that the theories of sociobiologists amount to genetic determinism, that they are downright dangerous- that these biological theories leave no room for the concept of "free will", or for true philanthropic or humane activities, and that they condone or legitimize as "natural" such behaviours as aggression, and crime, and the stereotyping of sexual roles in society, and so forth.

There was a good bit of very heated controversy about this, especially around the time that Wilson's second book, *On Human Nature*, was published. Wilson won the Pulitzer Prize for that book, by the way. But at the time, some respected scientists like Richard Lewontin and Stephen Jay Gould even attacked Wilson's theories as politically motivated! Nowadays, though, the fuss is pretty much over, and social scientists have pretty much all agreed that there's room for both biological, evolutionary, forces and social, cultural, uh, educational forces- that is, room for both nature and nurture- in explaining human social behaviour.

Anyway, what we're going to do in the first week or so in this class is look at some of the background science, some of the earlier thinkers before sociobiology became a recognized field. We'll start with a quick review of Darwin's *On the Origin of Species by Means of Natural Selection*, and then do some reading in Peter Kropotkin's *Mutual Aid: A Factor of Evolution*, which was written in the early 1890s. And then we'll look at Konrad Lorenz's and Nicholas Tinbergen's classic studies in animal behavior, before we start to examine Edward Wilson's work itself.

1. Which fact is true of Edward O. Wilson?

- (A) He wrote *Mutual Aid: A Factor of Evolution*.
- (B) He coined the word "sociobiology".
- (C) He won the Nobel Prize.
- (D) His research was on insects.

2. What is altruism?

- (A) A cultural trait
- (B) A theoretical proof
- (C) A kind of behaviour
- (D) A conundrum

3. Which statement is NOT supported by the lecture?

- (A) Wilson's theories were very controversial.

- (B) Sociobiology is also applicable to humans.
- (C) Darwin studied the physical characteristics of animals.
- (D) The next class will study E. O. Wilson's work.

4. Dominant male lions often kill the cubs (babies) produced in their pride by other males. Which statement best explains this behavior?

- (A) Lions are not really social animals.
- (B) Parenting is primitive in lion prides.
- (C) Genes for aggression are valuable to lions.
- (D) Lions exhibit division of labour by sex.

5. Judging from the lecture, which is NOT a characteristic of social insects?

- (A) Aggressive behavior
- (B) Division of labour
- (C) Altruism
- (D) Colonial life

6. Why does the lecturer mention 'chickens' and 'eggs'?

- (A) As a metaphor for the evolution of behavior.
- (B) As a warning against the dangers of sociobiology.
- (C) As a contrast to the behavior of social insects.
- (D) As the source of Wilson's theory of altruism.



# TOEFL Listening Lecture 8

*Listen to part of a university lecture by a professor of **Fine Arts**.*

Professor: We're now going to spend some time, class, talking about the most revolutionary, the most prodigious artist in the history of Modern Western art. Do you know who I'm talking about? Of course- it's Pablo Picasso. He was the artist who invented Cubism, he was the artist who invented collage, and he was the artist who experimented with more styles and media than probably any other artist in history, with the possible exception of Leonardo da Vinci. And what I'm passing out to you now are figures of some of Picasso's most famous and most revolutionary paintings.

Picasso was born in Spain in 1881, and he died in France in 1973, so his life spanned most of the development of what we call Modern art. He was a child prodigy. He began studying art very early, under his father, who was in fact an art teacher, and in 1897, at the age of sixteen, he entered the Royal Academy of Arts in Madrid. In fact, he passed their entrance examination in a single day, even though applicants were given a month to do this.

But after only a year there, he felt bored and stifled, and he dropped out. He went back to Barcelona, where he hung out with the other artists and musicians in the cafes for a while, and then

he visited Paris, where he had a chance to see the works of such radical artists as Seurat, Monet, Cezanne, van Gogh, and Toulouse-Lautrec- all of whom were, in their own unique ways, going beyond the realistic values of Renaissance illusionism. Picasso lived in Paris and Barcelona alternately for several years, from 1900 to 1904, and then he set up a permanent studio in Paris.

1901 to 1904 is known as Picasso's 'Blue Period', when he was a starving artist and sometimes had to burn his own drawings to keep warm. All his paintings during this period were done in sombre shades of blue, and they depicted thin, depressed figures, paupers and homeless people. If you look at the handout I gave you, you'll see an example of his Blue Period- 'The Old Guitarist', painted in 1903. Not a very happy looking fellow, is he?

From 1904, then, to 1905, Picasso passed through his 'Rose Period', when he began to use warmer, more tender colours- pinks and beiges- and his subjects became circus performers and harlequins and clowns. You can see his most famous painting from this period on the sheet- his 'Family of Saltimbanques', from 1905. You'll notice, though, that this quiet group of circus performers still look alienated and uncommunicative, though they are treated more kindly than he treated the old guitar player.

All of Picasso's paintings were rather two-dimensional up to this point, but then he began exploring pictorial volume, and this led to one of his most revolutionary works, 'Les Femmes d'Alger (O. J. R. M.)', which he painted in 1911. This is usually considered the first Cubist painting. You can see how Picasso reduces the

ladies' figures to a series of wide, intersecting planes that are aligned with the surface of the canvas. In this way, they suggest a dissected, multiple view of the world. This was a radically new, abstract pictorial language.

In my handout, you'll also find some other examples of how Picasso's Cubism developed between 1907 and 1921- 'Woman with a Guitar' is from 1912, for instance, and 'Three Musicians', which is a masterpiece of his later 'synthetic cubism' style, was painted in 1921. You can see in the 'Three Musicians' how Picasso's planes have become much broader and more simple, and how they exploit colour so much more.

The invention of Cubism is Picasso's greatest contribution to art, but he was also interested in many other arts- in sculpture, ceramics, graphics, printmaking, and even in stage design- and he experimented imaginatively in all of these areas. Also, as early as 1911, he began to include newspaper clippings and other realia into some of his paintings, and he thus invented collage. His first and most famous collage is 'Still Life with Chair Caning'. You can see it on your sheet- you can see that, in addition to the painted lemon and wine glass, it includes some fragments of literary letters and a piece of oilcloth- and Picasso framed it himself with a length of real rope.

And of course I should mention 'Guernica', the last painting on your handout, which is an extraordinary landmark of modern art- an infuriated Cubist condemnation of war and the atrocities of war that is still unmatched today. Picasso painted it in 1937, just after the Spanish town of Guernica was bombed in an air raid by

German planes during the Spanish Civil War. You can feel the brutality, the pain and suffering, in his images of screaming people and animals. And you can see how Picasso could turn his art so effectively into political statement.

By 1945, Picasso was well established as one of the great masters of modern art, but he continued to experiment with styles and techniques throughout his life. We'll be looking at him again later in the term, when we examine Cubism, Surrealism, and other modern visual movements in more detail.

1. How has the lecturer organized his lecture?

- (A) By place of residence
- (B) By thematic representation
- (C) By periods of development
- (D) By political stance

2. Why does the lecturer mention Leonardo da Vinci?

- (A) As a measure of Picasso's productivity
- (B) As an important influence on Picasso's art
- (C) As a key figure in Renaissance illusionism
- (D) As an artist whom Picasso reacted strongly against

3. Which fact supports the statement that Picasso was a child prodigy?

(A) He studied art under his father.

(B) He passed the Academy of Arts examination in one day.

(C) He dropped out of the Academy of Arts after one year.

(D) He experimented with many styles and media.

4. Which is considered Picasso's first Cubist painting?

(A) *Les Femmes d'Alger* (O.J. No. 115) (B) The Old Guitarist

(C) Family of Saltimbanques (D) Three Musicians

5. How did Picasso's Cubist paintings develop?

(A) The planes became more complex.

(B) The colours became simpler.

(C) The planes became simpler.

(D) The colours became bluer.

6. What is 'Guernica'?

(A) A town (B) A battle (C) A period (D) A collage

# TOEFL Listening Lecture 9

*Listen to part of a university lecture by a professor of **Archeology**.*

Professor: In this unit on ancient architecture, we've talked about the Taj Mahal, and about Machu Picchu in Peru, and uh, of course about the buildings on the Acropolis in Athens, and now I want to say a word or two about Angkor Wat, in Cambodia, which is a vast complex of temples that was built for the Khmer king, King Suryavaram the Second, in the early twelfth century A.D.

Angkor Wat was intended to be both a national temple and the capital city of the Khmer kings, but all of the city- all of the public buildings and shops and residences- are gone. They were all wooden structures, and all that remain are the impressive carved sandstone temples- there are over a hundred of them!- in the classical style of Khmer architecture.

The Khmer kingdom flourished from about 800 AD to 1400 AD, for about six hundred years, and it controlled vast areas of southeast Asia, from the borders of China to the Bay of Bengal on the east coast of India. During this time, the city of Angkor became an important destination for pilgrims from all over southeast Asia.

The temple complex is a combination of two basic Khmer designs- the 'gallery temple' and the 'temple mountain'. The

massive, 65-meter tall pyramid, the 'mountain', of Angkor Wat is surrounded by a moat and then a wall that encloses almost two square kilometers of space. Inside the wall, there are three inter-nested, that is, concentric, galleries, raised consecutively, like steps, and then the pyramid rises at the center, with a crown of five lotus-like towers. It's architecturally and artistically breathtaking!

The galleries and the moat were built after the pyramid, because their architecture was noticeably influenced by Indian Hindu temples. This is evident in characteristic features like the 'jagati', which is a raised terrace or platform that the temple is placed on. All of the temple walls, inside and outside, are covered with beautiful bas-reliefs showing stories from Hindu mythology, historical narratives of Khmer battles, scenes from heaven and hell, and so on.

The most extraordinary carvings are on the exterior walls of the third and lowest level. These include the 'Churning of the Ocean Milk', the most famous panel of bas-relief at Angkor Wat, and one of the greatest scenes ever sculpted in stone. The myth centres on the gods and demons at the beginning of the world, who have been churning the ocean of milk for 1000 years in an effort to produce an elixir that will render them immortal. The gods, discouraged because they've been unsuccessful in producing the elixir, and exhausted from fighting the demons, seek help from Vishnu, who tells them to work together with the demons and continue churning, and eventually they succeed.

The mountainous central pyramid represents Mount Meru, the home of the devas, the Hindu gods, and the five towers represent its five peaks. The surrounding galleries and moat represent mountain ranges and the ocean.

The surreal magnificence of Angkor Wat has inspired various theories of its origin, its design, and its purpose. The orthodox view is that the location was simply chosen for practical, economic reasons- for its agricultural potential- and as a strategic military position. It was constructed by powerful Khmer kings as a service to their gods and to their people.

However, other archeologists have suggested that Angkor Wat's layout matches various complex astronomical measurements- that it was perhaps designed, and was carefully aligned and calculated, to be an intrinsic part of the spiritual harmonization of the universe in their ancient system of cosmology or astrology.

Well, we do know at least that the design is not like most Khmer temples. It is oriented in the opposite direction, to the west instead of to the east, and the bas-relief carvings proceed in a counter-clockwise direction, which is the reverse of the usual order. Because Hindu funeral rituals are performed in reverse order, this has led many archeologists to believe that Angkor Wat was designed to be King Suryavaram's funerary temple or tomb. If so, it would be the most expensive tomb ever built! But other archeologists say that its western alignment is because it was dedicated to Vishnu, who was associated with that direction. So Angkor Wat's precise purpose remains unclear, a mystery for tour guides to exploit.

Not long after Suryavaram's death, in 1177, Angkor was sacked by the Khmer's sworn enemies, the Chans, and then in the following century, the king converted the official religion from Hinduism to Buddhism, so Angkor Wat was converted to Buddhist use. It was generally neglected over the succeeding centuries, but it was never entirely abandoned, and this accounts for its relatively reasonable state of preservation from the encroaching jungle.

A lot of restoration work has been going on since the early twentieth century, but one of the temples, called Ta Prohm, has been left alone, entangled in the jungle just as it was when it was discovered, and the giant fig tree roots continue to engulf it, tearing up its sandstone walls and sculptures. So we can see how lucky we are to have much of Angkor Wat still with us.

1. According to the lecturer, when was Angkor Wat constructed?

(A) 800-899 AD (B) 900-999 AD (C) 1000-1099 AD

(D) 1100-1199 AD

2. Which is NOT mentioned as a part of Angkor Wat's design?

(A) Buddhist images

(B) A pyramidal temple

(C) Wall sculptures

(D) Geographical orientation

3. Why does the lecturer mention 'jagati'?

(A) As proof that the pyramid is older than the galleries

(B) As proof that Angkor Wat was a tomb

(C) As proof of Hindu mythology

(D) As proof of Khmer design

4. Which is NOT a theory about Angkor Wat?

(A) It was designed as a funerary temple.

(B) It was located in a good farming area.

(C) It was intended to impress the Chans.

(D) It was positioned for military defense.

5. What is the 'Churning of the Ocean Milk'?

(A) A gallery (B) A myth (C) A moat (D) A wall

6. According to the lecturer, which factor most accounts for the present condition of Angkor?

(A) It was destroyed by the Chans.

(B) It was converted to Buddhist use.

(C) It was overwhelmed by the jungle.

(D) It was always inhabited.

# TOEFL Listening Lecture 10

*Listen to part of a lecture from a **social science class**.*

Prof: Several theories compete to explain when, how, and where -- check that, why -- wild horses were initially domesticated. Primitive cave art depicts horses as early as 32,000 years ago, but it's generally agreed that humans did not domesticate the animals until sometime between 5,000 and, uh, 2,000 BC. Many scholars accept a theory, er, an hypothesis, that domestication occurred in the Ukraine about 4,000 BC. However, recent archaeological evidence indicates that horses in northern Kazakhstan might have been domesticated as much as 1,600 years earlier than that by people of the Botai culture. The Botai appeared to depend on horses for transportation, food and tools. But ... [pause] one of the archaeologists who discovered this new evidence has speculated that horses were domesticated even earlier, probably in Russia or the Ukraine, and then ridden east to Kazakhstan. Thus the plot thickens.

Why is it so hard to pinpoint the definitive time and place of the earliest horse domestication? One, a major reason is a lack of concrete evidence, such as bits, reins, spurs, and saddles.

Anatomically, modern horses are almost identical to their wild ancestors, which forces researchers to rely on circumstantial evidence in formulating domestication hypotheses.

Archaeological excavations at several eastern European sites that

date to the 4,500 to 3,000 BC range, for instance, reveal equine molar wear likely caused by friction from a bit. Whether the use of a bit signals full domestication or simple captivity, however, is subject to debate. Um, at the Kazakhstan site mentioned above, part of the case presented for domestication is soil analysis that indicates ancient, uh, horse manure within a corral-like enclosure.

But again, the fact horses may have lived, er, been kept together in a corral does not necessarily equate with domesticity, because many ancient peoples used horses for meat and, uh, help with labor, similar to the use of oxen in harvesting today. Recent DNA comparisons between living horses and horse fossils suggest that domestication cannot be narrowed to a single place or time; rather, it occurred more or less simultaneously all over the world. Because the DNA analysis revealed widespread genetic [false start] widespread genetic variances among both modern and ancient horses - unlike other domesticated animals, like sheep and cattle - it appears that domesticated horses had multiple wild lineages in many different places.

One prominent theory holds that there were four distinct horse prototypes, which may or may not have been different species, and that these prototypes were domesticated at differing times and places as they adapted to various environments. The first of these is the "draft" horse, a small, thick-skinned Shetland pony ancestor that developed in the cold, wet climes of norther -- northwest -- Europe. A second prototype is the Tarpan, from cold and dry north Eurasia. The Tarpan is a pony-sized, dun-colored creature that preceded today's Przewalski's Horse - which is the only equine that has never been domesticated. The third

prototype, which developed in, um, central Asia, was dubbed "warm-blooded" or "forest horse." This long-necked, narrow-headed equine was larger than drafts and Tarpan, and the forefather of heavy horses like the Andalusian. "Oriental" horses, the fourth subspecies, were slimmer, beautiful, fine-boned animals that adapted to the dry, hot climate of western Asia, and were probable progenitors of modern Arabian horses.

To a large extent, the domestication of horses depends on one's definition of the verb domesticate. Ahem. While it is clear from the, uh, archaeological evidence that the earliest role horses played in human history was as a source of food, and that pictorial and written depictions make it unequivocally clear that horses had been trained to pull chariots and use in warfare by about 2000 BC, the, uh, process of transition between these two polarities remains murky. One group of theorists believes that horses cannot be classified as domesticated until there is evidence that they have bred in captivity. A leading proponent of this viewpoint, researcher Marsha Levine, has hypothesized that horses were domesticated gradually, most likely by humans raising the foals of adults slaughtered for food. According to Ms. Levine, over time the hand-raised horses became pets, and rather than eating them, people learned how to ride them and harness their speed and strength in order to capture other food sources, such as bison and deer. They also bred these horses with each other, though the exact date of the first successful domestic mating, like most of the evidence surrounding horse domestication, remains unclear.

1. What is the lecture mainly about?

- (A) Prototypes of early horses
- (B) Circumstantial evidence
- (C) The use of horses in the Botai culture
- (D) The origins of horse domestication

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: Many scholars accept a theory, er, an hypothesis, that domestication occurred in the Ukraine about 4,000 BC. However, recent archaeological evidence indicates that horses in northern Kazakhstan might have been domesticated as much as 1,600 years earlier than that by people of the Botai culture. The Botai appeared to depend on horses for transportation, food and tools. But ... [pause] one of the archaeologists who discovered this new evidence has speculated that horses were domesticated even earlier, probably in Russia or the Ukraine, and then ridden east to Kazakhstan. Thus the plot thickens.

2. Why does the professor say this: "Thus the plot thickens"?

- (A) To highlight his confusion about his lecture notes.
- (B) To argue that horses were domesticated in Kazakhstan.
- (C) To emphasize the disparity of scholarly opinions
- (D) To ridicule the contributions of the Botai people

3. According to the professor, what is the main obstacle to determining the origin of horse domestication?

- (A) Archaeological excavations
- (B) DNA comparisons
- (C) Discoveries of the use of bits
- (D) A lack of concrete evidence

4. What does DNA analysis reveal about the domestication of horses?

- (A) Domestication appears to have occurred simultaneously in several places.
- (B) Domestication can be narrowed down to a specific location and time period.
- (C) Domestication most probably occurred when horses were first used in warfare.
- (D) Domestication first occurred with a prototype known as Przewalski's Horse.

5. Why does the professor mention researcher Marsha Levine?

- (A) To illustrate a theory of gradual horse domestication.
- (B) To refute the findings of DNA comparisons.
- (C) To explain the development of Oriental horses.
- (D) To remind students of a point to remember for the exam.

6. All of the following are mentioned in the lecture as prototypes of modern horses EXCEPT

- (A) Draft
- (B) Shetland
- (C) Forest
- (D) Tarpan

# TOEFL Listening Lecture 11

*Listen to part of a lecture from an **arts class**.*

Prof: Suppose I said to you, "That's a really kitschy shirt." Did I give you a compliment? Yes, in the back.

S1: Uh, no, I don't think so. Doesn't kitschy mean, like, you know, cheesy or cheap? You wouldn't want to wear something that was in, in bad taste.

P: No you wouldn't...yes, over here?

S2: But can't kitschy also mean something good, that's, um, in style? Like I thought

something nostalgic or retrograde could also be called kitsch.

P: That's a trenchant observation. Actually, both views are correct. Kitsch typically makes us think of something cheap or distasteful, but it can also, um sometimes, be used as a compliment as well. Kitsch comes from, is originally a German term, and it, generally speaking it refers to works of art that are widely considered to be pretentious or in poor taste. Kitsch is produced for the masses, to appeal to the popular and, um, indiscriminating tastes of quote-unquote regular people. While it usually carries a negative connotation, some people find kitsch to be appealing, because of its retrograde value and its uh, how should I put it? Its inadvertent

irony. Still, many art purists believe that kitsch saturates all popular culture, and others even go so far as to say that kitsch and popular culture are one and the same.

The term most likely arose in 19th century Munich art markets. It was an English mispronunciation of a German word that means, um, "scraping up mud from the streets," and was later understood as artwork that was "slapped together" rather than, um, er, painstakingly created. Kitsch is most often associated with art that has a sentimental quality to it. But it can also be used to refer to any kind of art that is, uh, lacking in some shape or form, whatever it may be. What differentiates Kitsch from popular art is that it typically apes high art; it insists on being taken seriously even though it is obviously superficial and parasitic. Though kitsch objects might initially appear to be artis-- uh, beautiful, or creative, a closer look reveals that they repeat the formula and convention of high art, but without any spark of inspiration or originality. In this context, Leonardo da Vinci's masterpiece painting, Mona Lisa, is genuine art, but hand-painted, mass-produced reproductions of the painting are kitsch.

Kitsch entered the arena of the general public in the 1930s, when three famous art critics proclaimed it a major threat not only to art, but to culture itself. They compared Kitsch to a Marxist term, false consciousness, that argues there is a gap between reality itself and the way reality appears to people. Similarly, kitsch dwells in what is sometimes called a, uh, a culture industry. This is where art becomes controlled and form, [false start] formulated not by thought or imagination but by the demands of the market itself. Once they are produced, forms of kitsch art are simply given to a

passive populace which accepts it. This kind of art is simply eye candy, non-challenging, and formally incoherent, providing its audience merely with something to look at and, uh, admire. Socially, then, according to the Marxist view, kitsch becomes an aid in serving the oppression of the population by capitalism, in the form of distracting people from their alienation. In many cultures, genuine art is supposed to be challenging, revolutionary, and subjective in direct response against the oppressiveness of the power structure. Yes, question?

S1: So, uh, I don't quite get it. Is kit, is kitsch art judged by the quality of its materials? I mean. like, the Mona Lisa is a masterpiece because of the expression on the woman's face, right? So does it become less of a masterpiece when it's um, like you said, mass reproduced on cheap canvasses and coffee mugs and stuff?

Prof: Well, in a sense, yes it does become less than, less of a masterpiece. Um... the major appeal is the facial expression, but with true art the medium is important too. It's the expression, plus the canvas, plus the paint, plus the artist's signature strokes, all put together. A photographic or hand-painted reproduction just can approximate that image, but it can't capture it just the same way. Consider Las Vegas for a moment. Las Vegas architecture stands above all the rest of the world as a prime example of blatant kitsch. For instance, there's a motel on the strip featuring huge pyramids and other monuments of ancient Egypt. To the uh, untrained eye, these can look spectacular. But comp, in comparison with the original pyramids in Egypt, they are gaudy

and intrinsically worthless. Clearly, Las Vegas is the epitome of how luxury and kitsch often mingle with one another.

1. What aspect of kitsch does the professor mainly discuss?

(A) Its history (B) Its production (C) Its meaning (D) Its appeal

2. Why does the professor mention Mona Lisa?

(A) To make a point about Leonardo da Vinci

(B) To help form a definition of modern art

(C) To exemplify a popular form of kitsch

(D) To refute its reputation as a masterpiece

3. According to the professor, where did the term kitsch originate?

(A) In modern Las Vegas (B) In 19th Century Munich

(C) In 1930s Russia (D) In 20th century England

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: Kitsch is produced for the masses, to appeal to the popular and, um, indiscriminating tastes of quote-unquote regular people.

4. What does the professor mean when he says this: quote-unquote regular people.

(A) He does not necessarily agree with the definition of regular people.

(B) He disagrees that regular people have discriminating tastes.

(C) He questions the hypothesis that kitsch represents bad taste.

(D) He believes kitsch appeals mostly to upper-class art purists.

5. According to the lecture, what is NOT true of Kitsch?

(A) It is predominate in Las Vegas architecture.

(B) It s synonymous with "slapped together".

(C) It has been compared to a Marxist term.

(D) It is used primarily a compliment.

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: Suppose I said to you, "That's a really kitschy shirt." Did I give you a compliment? Yes, in the back.

S1: Uh, no, I don't think so. Doesn't kitschy mean, like, you know, cheesy or cheap? You wouldn't want to wear something that was in, in bad taste.

Prof: No you wouldn't...yes, over here?

S2: But can't kitschy also mean something good, that's, um, in

style. Like I thought something nostalgic or retrograde could also be called kitsch.

6. What can be inferred about the student when he says this: But can't kitschy also mean something good, that's, um, in style? Like I thought something nostalgic or retrograde could also be called kitsch.

- (A) He does not respect the professor's opinion.
- (B) He is familiar with the concept of kitsch.
- (C) He misunderstood the professor's main point.
- (D) He is probably majoring in art history.

# TOEFL Listening Lecture 12

*Listen to part of a lecture from a **life sciences** class.*

Prof: Birds use communication for a variety of reasons: to repel other birds, to attract other birds, to find family members, and to alert other birds to danger. They communicate with each other in unique and fascinating methods, which include singing, dancing and strutting. Biologists have only recently begun to compare [false start] to understand the implications of some of these, er, interesting behaviors.

Verbally, birds make noises that scientists label "calls" and "songs." Types of calls are cheeps, honks, squawks, chips -- I mean chirps -- and tweets. Now, most birds make only a single call, but some birds, known as songbirds, are able to craft more complex tunes. In recent years biologists have used tape recorders to better analyze bird noises and study other bird's re, responses to them. They have discovered that single calls communicate simple messages, such as "Here I am," or "Watch out for that hawk!" Um, songs, on the other hand, are performed, or usually performed, only by males, and for one of two specific reasons: to defend territory or to find a mate. In one experiment, scientists removed all the male birds of one species from a certain area and replaced them with tape recordings of their songs. Other males from that species heard the recordings and wouldn't enter that area.

Biologists have also discovered that male birds will sometimes have a singing con, uh, singing duel to determine which one gets the best territory. One bird will sing, and then the other will answer with the same song or a similar one. This counter-singing will go back and forth until one bird "wins," though no one yet knows how the champion is determined. Kind of like an avian "American Idol," huh? OK. In another experiment, biologists put dummies of one type of bird in a field. Half of the dummies played a recorded version of that bird's mating song, while the other dummies were kept silent. Female birds flocked to the singing dummies and ignored the quiet ones. I guess girl birds don't go for the strong, silent type. [groans] Although female songbirds don't usually sing, they will sometimes imitate a male's song to signal to their mate that an en, er, predator is coming. The male will think another bird is encroaching on its territory and hurry back to protect its nest.

Biologists know that baby birds make a cheeping sound to indicate to their parents that they are hungry or hurt, a behavior that they term "begging." Different kinds of birds beg with higher or lower frequencies, depending on the location of their nests. Birds with nests in trees beg louder, using a lower frequency, because they have less worry of attracting predators. Birds with nests on the ground beg with a higher frequency that doesn't carry the sound as far, because they are more vulnerable to a predator's attack. Um, begging birds compete for their mother's attention, to be fed first or to get extra food or care. Usually, a baby bird that has had enough to eat will quit begging loudly. However, biologists have recently found that this is not always the

case. New studies indicate that parents often give more food and attention to the most persistent beggars -- the youngsters who cheep longest and loudest. Ironically, human babies often exhibit the same kind of behavior. We call it whining. [laughter]

OK [chuckles]. Birds also use a series of non-verbal signals, or body language, to communicate various intentions. Many male birds will perform some type of dance to attract a mate. Here is the male booby bird, for example. He alternately lifts its blue webbed feet high in the air until a female booby comes and touches his neck with her beak. Here she comes. All right dude. Good job! Other species attract mates by flashing feathers with extraordinary colors, such as a peacock's tail and a tragopan's blue-and-red chest. A male will usually puff up the colored parts of his body and strut near the female, hoping to impress her. Male bower birds build small nests that they decorate with colorful objects, such as uh, shells and, um, buttons. When a female comes near, the male bower will pick up one of the objects in his beak and strut around with it. When male birds succeed in attracting a female, the new pair will often perform an intricate dance together to indicate their acceptance of each other. A species of water bird called grebes perform a ritual in which they ruffle their feathers, shake their heads and offer each other plants to eat.

1. What is the main topic of the lecture?

(A) Bird communication (B) Bird calls and songs

(C) Bird research (D) Bird body language

2. How do male birds use songs?

(A) To put their babies to sleep (B) To give short messages

(C) To repel a mate (D) To defend their territory

3. Why does the professor discuss an experiment with dummies?

(A) To dispel a notion about body language

(B) To highlight different types of bird calls

(C) To demonstrate a point about songbirds

(D) To spotlight a behavior of the booby

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: Many male birds will perform some type of dance to attract a mate. Here is the male booby bird, for example. He alternately lifts its blue webbed feet high in the air until a female booby comes and touches his neck with her beak. Here she comes. All right dude. Good job!

4. What can be inferred when the professor says this: "Here is the male booby bird"?

(A) The professor is holding a booby bird in his hand.

- (B) The professor is showing a film clip of the booby bird.
- (C) The professor is showing a picture of a booby bird.
- (D) The professor has taken the students outside the classroom.

5. What is true of baby birds whose nests are in trees?

- (A) They beg quietly.
- (B) They beg with a low frequency.
- (C) They do not beg when they are hungry.
- (D) They beg with a high frequency.

6. What does the professor imply about birds' communication?

- (A) Scientists still don't understand it well.
- (B) It is eerily similar to that of humans.
- (C) It has changed in recent years.
- (D) Much of it seems very strange.

# TOEFL Listening Lecture 13

*Listen to part of a lecture from a **life sciences** class.*

Prof: Today... ahem, can I have your attention please? Thank you. Today I want to talk about a pungent plant that is known by such flattering aliases as "Stinking Ninny" and "Mare's Fart." It's called ragwort, and although it is a flower, it's definitely not the type you want to give your wife on Valentine's Day. Ragwort is a wildflower with characteristics of a weed. Though it's indigenous to Europe, it can be found all over the world, primarily in cool climates with high precipitation. Ragwort is a hearty weed that can, is capable of rapid multiplication, and sometimes overruns the places where it grows. Because of this, Ragwort is controversial. It has a reputation -- an unmerited reputation, in my opinion -- as an invasive and, uh, deadly plant.

In the past, we, er, humans have used it as a type of salve to reduce swelling and relieve pain, and also to make green and yellow dyes. Some of the natural ingredients contained in Ragwort is used in still used in some natur [false start] herbal remedies today. Ragwort's reputation for deadliness springs from its innate chemical organic compounds, called alkaloids. Alkaloids make the plant toxic to animals such as, uh, horses and cattle, which can get fatal liver damage from eating too much of the plant. This has cast Ragwort into, shall we say, disrepute among

ranchers and farmers, and created controversy about the actual degree of danger it poses to livestock. The key question being, "how much is too much?" British horse breeders, for instance, have claimed that Ragwort poisoning causes as many as 6,500 horse deaths a year. Hmm...[pause] Critics are extremely skeptical of this number, because research suggests that the animals would have to eat a prodigious amount of Ragwort to produce such a huge number of deaths.

For example ... [pause] in one study, a horse lived after eating Ragwort equal to a quarter of its body weight over a period of 140 days. And in another study, 400-pound cows were fed Ragwort equal to about 12-percent of their body weight over a 20-day period. Even though this was a, well, substantial amount of toxin, 25-percent of the cattle survived. Moreover, statistics from the British government dramatically contradict the figures from horse breeders. These stats indicate that annual confirmed cattle deaths from Ragwort poisoning range from only ten to twenty. Considering that studies indicate Ragwort is more toxic to cattle than to horses, and that both cows and horses detest Ragwort's bitter taste, critics understandably ridicule the 6,500 figure. Government: 10 to 20 deaths per year. Breeders: sixty-five hundred. That's a rather large discrepancy, is it not? [clears throat] It's also pertinent to note that sheep routinely eat small quantities of Ragwort with no apparent harmful effects. In - on the contrary, Ragwort seems to benefit them, because the alkaloids kill worms in their digestive tracts.

Perhaps a more, uh, more valid concern is the cumulative effect of Ragwort ingestion. The plant's toxin itself doesn't store in the liver,

but a derivative of the toxin damages DNA and can destroy liver cells gradually. The fatal toxicity level for horses has typically been claimed to be 3 percent to 7 percent, but, as I noted, they might be able to assimilate a far greater percentage. Why is this? Two reasons. First, the liver can often metabolize small amounts of toxins before they cause any damage, and second, bacteria in animals' digestive tracts destroy Ragwort's original alkaloids before they enter the bloodstream. Also for these reasons, it is safe for humans to eat the meat of animals that have ingested Ragwort. Any damage from Ragwort alkaloids would be confined to the animal's liver; toxic residue does not leech into the meat. So, while the chances of animals contacting Ragwort poisoning appear to be small, livestock owners remain concerned. And who can blame them? Ragwort poisoning has no known antidote, and it causes animals to suffer a very painful death, characterized by depression and a lack of coordination.

The British government classified Ragwort as one of five "injurious weeds" in its Weed Act of 1959, a classification it later amended in the Ragweed Control Act of 2003. A common mistake, er, misperception is that these legislative orders require landowners to prevent Ragwort from spreading on their property. In reality, all the acts do is to empower government officials to order such prevention if they deem it necessary. The acts themselves seem based on another misconception: that Ragwort is an, um, intensely invasive plant. It's true that Ragwort seeds are dispersed by wind, but evidence shows that these seeds do not travel far. In a United States study of the dispersal of more than 53,000 Ragwort seeds, it was found that almost 90 percent of them

traveled less than six yards, and that no seeds were dispersed more than 15 yards from their producer. It seems safe to conclude, therefore, that Ragwort plants pose little threat of widespread colonization.

Despite such scientific evidence, misconceptions about Ragwort persist in the popular press. Imagine that! [laughter] One of the most persistent rumors is that Ragwort is "spreading like a plague." Another common myth is that horses and cows can be poisoned by eating or inhaling Ragwort seeds or spores. This is ridiculous because Ragwort in fact has no spores. The more one learns about Ragwort, the more it seems that um, that the most likely way a horse or cow can contract Ragwort poisoning is if its owner allows it to graze for long periods in pastures rife with Ragwort plants. This is an action so irresponsible it defies imagination.

1. What aspect of the Ragwort plant does the professor mainly discuss?

- (A) Its biological composition
- (B) Its toxicity ratio
- (C) Its seed dispersal range
- (D) Its reputation

2. What is the professor's opinion of Ragwort?

- (A) Its nutritional value is underrated.
- (B) Its threat to animal health has been exaggerated.

- (C) It is a menace to farmers and landowners.
- (D) It poses a potential danger to human beings.

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: Despite such scientific evidence, misconceptions about Ragwort persist in the popular press. Imagine that! [laughter]

3. What can be inferred about the professor when he says this: Imagine that!

- (A) He used to be a journalist.
- (B) He is frustrated with his students.
- (C) He trusts news reports.
- (D) He is disdainful of newspapers.

4. According to the professor, what is one way that Ragwort can affect horses?

- (A) It causes liver damage.
- (B) It destroys digestive worms.
- (C) It reduces swelling.
- (D) It induces paralysis.

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: statistics from the British government dramatically contradict the figures from horse breeders. These stats indicate that annual confirmed cattle deaths from Ragwort poisoning range from only ten to twenty. Considering that studies indicate Ragwort is more toxic to cattle than to horses, and that both cows and horses detest Ragwort's bitter taste, critics understandably ridicule the 6,500 figure. Government: 10 to 20 deaths per year. Breeders: sixty-five hundred. That's a rather large discrepancy, is it not?

5. What does the professor imply when he says this: That's a rather large discrepancy, is it not?

- (A) The government's figures are dramatically underestimated.
- (B) More cattle than horses eat Ragwort flowers.
- (C) Criticisms of horse breeders are off base.
- (D) The horse-breeders' figures are wildly inaccurate.

6. Why does the professor discuss a study of the dispersal of Ragwort seeds?

- (A) To prove a point about Ragwort toxicity
- (B) To counter claims of breeder bias
- (C) To dispel a common misconception
- (D) To illustrate the danger of Ragwort spread

# TOEFL Listening Lecture 14

*Listen to part of a lecture from a **life sciences** class.*

Prof: In modern hospitals and medical facilities, it is imperative that used equipment be thoroughly cleansed, or sterilized. This includes instruments such as scalpels, hypodermic needles, and artificial pacemakers. If you've ever had a shot, or given blood, you know just how important this is. Right? It's crucial that the bacteria, viruses and other, uh, harmful substances on these instruments are eradicated before they are used again. All medical instruments that contact a sterile part of the body, such as blood, must be either sterilized or thrown away. What are some potential consequences of using non-sterile instruments?

S: It could cause diseases, like, uh, infections and stuff. Like hepatitis, and AIDS.

P: Correct. It can result in very serious diseases, and quite possibly [dramatic pause] death! So then, so, to ensure against that, today many medical facilities employ single-use items. After a certain instrument, such as a nee [false start] a hypodermic needle or pair of forceps, has been used, it is simply discarded. For instruments that are not discarded, hospitals use a machine called an autoclave to ensure sterility. An autoclave is a sealed device, usually made of steel. It uses pressurized steam to heat water above its boiling point, which inactivates harmful substances. A

stovetop steam cooker is a type of autoclave. Hospitals use larger autoclaves that resemble washing machines or dishwashers.

For an autoclave to work, it must remain sealed. Do you know why?

S: Um, is it because if it it's not sealed, it won't get hot enough? Like, water can't be heated above its boiling point in an open pot. Once it starts to boil, it doesn't get any hotter.

P: Yes -- give that man a gold star for reading his textbook! Boiling water begins to evaporate extensively, and change to water vapor, when the temperature reaches approximately 195 degrees. Evaporation cools the water, so that when it reaches 220 degrees it will still boil, but cease warming. Does that make sense? All right. Now, water heated with a seal, in a sealed vessel, can be pushed past its boiling point. Inside a vessel, evaporating gaseous vapor creates additional pressure, and the pressure, in turn, creates latent heat. When the pressure reaches a certain point, evaporation ceases. Thus, the water -- some of the water -- in the vessel does not evaporate. This remaining water can be heated higher than 220 degrees. Typically, it is heated to 250, which increases the pressure of the water vapor.

Latent heat, also known as the heat of transformation, absorbs this extra warmth from the water, and uses it as energy in the sterilization process. Are you with me? OK. The latent heat from this vapor is powerful enough to penetrate deep into bacteria on the instruments it is cleaning. It can penetrate through to their most heat-resistant parts, which are called endospores. This steam is very effective for sterilizing solid objects. But, uh, hollow things,

hollow objects, like hypodermic needles and surgical tools, have trapped air inside of them where endospores could hide. Modern autoclaves have a powerful vacuum that sucks out this trapped air, thus ensuring that the steam thoroughly penetrates all objects in the autoclave.

When the autoclave is used properly, it will inactivate all fungi, bacteria, viruses, and bacterial spores. Autoclaves operate by maintaining the heat, er, temperature and pressure of the steam for a certain length of time. Hospitals use a variety of indicators to make sure these conditions are met. Chemical indicators are usually pieces of tape on the exterior of autoclaved packages. These will change color to show that the contents of the package have been sufficiently sterilized. Biological indicators are vials, or attestations, that contain spores of a heat-resistant bacterium called *Bacillus stearothermophilus*. Anybody want to take a crack at spelling that? [Chuckles]. Don't worry. It's not important. But these vials of *Bacillus stearothermophilus* are placed inside the autoclave, and the spores will germinate, indicated by a change in color, if the autoclave fails to become hot enough. So chemical and physical indicators are exactly the opposite. If a chemical indicator changes color, that's good. With biological indicators, bad. Make sense?

Physical indicators are a third type of measurement. These are, uh, typically a mixture of metals, called alloys, that um, will melt only if the temperature is hot enough for the correct length of time -- in other words, if the contents of the autoclave have been sufficiently sterilized. In addition to these indicators, most autoclaves have attached gauges to measure the interior pressure and

temperature. And In the most sophisticated autoclaves, these variables are controlled by a computer.

To ensure effective autoclaving, the steam must penetrate everywhere inside the machine. So it's critical not to overload the autoclave with too many objects, and also to keep the lids of all the containers within the autoclave slightly ajar. The best way to assure complete sterilization is to place indicators within the autoclave in the hardest, um, the most difficult places to reach. Technicians place attest devices, for example, inside various containers within the autoclave. If the spores in the attestations are eradicated, there is assurance that the container in which it was placed has been sterilized. Because sterilization is so vital, medical professionals don't rely solely on autoclaving. They take care to clean instruments with special soap and hot water as soon as they are done using them. Without this step, harmful matter on the instruments could actually inhibit their successful sterilization. If this happens the matter could unintentionally protect the bacteria during the autoclaving process.

1. What is the lecture mainly about?

- (A) The importance of sterilization
- (B) How autoclaves work
- (C) The danger of endospores
- (D) The use of indicators with autoclaves

2. According to the professor, why must an autoclave be sealed?

- (A) To create latent heat
- (B) To boil water
- (C) To heat water to 220 degrees
- (D) To prevent evaporation

3. Which of the following is true of biological indicators?

- (A) They are typically pieces of tape.
- (B) Their spores won't change color.
- (C) They are placed on top of autoclaves.
- (D) A color change indicates trouble.

Narrator: Listen again to part of the passage and answer the following question(s).

P: For an autoclave to work, it must remain sealed. Do you know why?

S: Um, is it because if it it's not sealed, it won't get hot enough? Like, water can't be heated above its boiling point in an open pot. Once it starts to boil, it doesn't get any hotter.

P: Yes -- give that man a gold star for reading his textbook!

4. What can be inferred from the professor's response to the student: Yes -- give that man a gold star for reading his textbook!

- (A) He is cynical about the student's integrity.
- (B) He is dubious of the student's intelligence.
- (C) He is impressed with the student's study habits.

(D) He is relieved that the student has come to class.

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: Biological indicators are vials, or attest, that contain spores of a heat-resistant bacterium called *Bacillus stearothermophilus*. Anybody want to take a crack at spelling that?

5. What does the professor mean when he says this: Anybody want to take a crack at spelling that?

(A) He expects students to spell the word correctly.

(B) He acknowledges that the word is too difficult to spell.

(C) He is challenging students to try spelling the word.

(D) He wants students to find the word in dictionary.

6. What is the purpose of autoclave indicators?

(A) To eradicate endospores (B) To measure attest

(C) To ensure sterilization (D) To gauge boiling time

# TOEFL Listening Lecture 15

Listen to part of a lecture from a **social sciences** class.

Prof: Are we ready? Let's start. Today's topic is fast food. For many people in other countries, fast food equals American food. All Germans eat sausages, all Chinese eat rice, and all Americans eat hamburgers, right? Well, um, actually, we do eat a lot of hamburgers. In fact, the average American eats three hamburgers a week, along with four orders of French fries. I'll tell you, my son is not average, because he'd eat three hamburgers a day, if I'd let him. And I think he eats four orders of French fries by Wednesday. [laughter] But, even though we still eat hamburgers, did you know that we eat less now than we used to when I was your age? In 1976, we ate 94 pounds of beef per person each year. These days, we eat 68 pounds per person. From 94 to 68, that's quite a reduction! But eating [false start] But just because we eat fewer hamburgers does not mean we eat less fast food. As a matter of fact, we eat more fast food than ever. Here is some food for thought: In 1970, Americans spent six billion dollars a year on fast food. By 2001, that number had increased to one hundred and ten billion. Six billion to a hundred and ten billion in 30 years [whistles]! Man, if my stocks had done that well, I wouldn't be standing here teaching, I'd be in my private Lear jet on my way to Hawaii!

Uh, an easier way to imagine this might be that Americans spend more money annually on fast food than they do on university fees, personal computers, and new cars. We shell out more money for hamburgers, pizza, chicken and French fries than we do for movies, books, magazines, newspapers, DVDs and CDs combined. How many of you have bought a car? Oh, lots of you, I see. I bet you thought that was a big-ticket item. Now, how many of you often order pizza delivery or eat fast food on the weekends? Hmm, most of you! That doesn't seem so expensive, does it? But, if you're average, over the course of a year you'll spend more money on the food than you paid for that car - especially if you bought a used one.

In one sense, it's not surprising that we spend more on food than entertainment. After all, we have to eat. But Americans spend more money not just on food, but on fast food. Is this healthy? Um, probably not. Maybe you've noticed that Americans are getting fatter. And I don't mean just a little plump. We're getting obese. America has the largest percentage of obese people among all developed nations. Did you know that more than half of all US adults weigh too much? So do about twenty-five percent of our children. The US surgeon general calls this a crisis. A crisis! Think of it like a river. It keeps raining, and the river keeps rising. At first no one is very worried. But the water keeps rising, and rising. Then it overflows its banks and floods the city. Suddenly, we have a crisis. Why is being obese a crisis? Well, for one thing, it's killing us. Obesity - um, being too fat - increases the stress on our bodies. Our hearts and other organs have to work harder, and they break down sooner. Obesity is the number two cause of

death in America today, right behind smoking. We all know how bad smoking is. Being too fat is the second-biggest killer.

Of course, there are other factors to consider. Simply eating fast food, by itself, does not make you obese. On the other hand, it doesn't help your health, either. A few years ago, a man decided to eat at McDonald's every day for a month: breakfast, lunch and dinner. Before he began doing this, he was in almost perfect health. Thirty days and about 40 pounds later, he had heart problems and trouble breathing. His liver and kidneys were weak. His doctor said his liver was similar to an alcoholic's. OK, I know this case was excessive. But the [false start] But what was scary was that while doing this, he found that about 20 percent of McDonald's customers really do eat there virtually every day.

1. What is the lecture mainly about?

- (A) Fast food eating and spending habits
- (B) The nutritional benefits of fast food
- (C) The history of fast food
- (D) Worldwide fast food

2. According to the professor, how much does the average American eat each week?

- (A) Four hamburgers and three orders of French fries
- (B) Five hamburgers and four orders of French fries

(C) Three hamburgers and four orders of French fries

(D) Two hamburgers and three orders of French fries

3. Why does the professor mention a river?

(A) to make a comparison with fast-food spending

(B) to illustrate a point about obesity

(C) to give a personal example of poor health

(D) to clear up confusion about the cost of hamburgers

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: For many people in other countries, fast food equals American food. All Germans eat sausages, all Chinese eat rice, and all Americans eat hamburgers, right?

4. What can be inferred about the professor when he says this: right?

(A) He thinks that all Chinese people eat rice.

(B) He does not like stereotypes.

(C) He thinks the students believe his statements. (D) He hates people who are not American.

5. What is the main danger of obesity?

(A) It damages the liver and kidneys.

(B) It makes the heart work harder.

(C) It causes trouble breathing.

(D) It can kill people.

6. What does the professor imply about the man who ate at McDonald's for one month?

(A) Fast food was the primary cause of his health problems

(B) He gained forty pounds in thirty days.

(C) He was foolish for not exercising.

(D) His health problems were not related to his diet.

# TOEFL Listening Lecture 16

*Listen to part of a lecture from a **social sciences** class.*

Prof: We don't know with certainty who invented the bicycle, or where it was invented, or when. Ahem (clears throat). We do know that the modern bicycle had several precursors from different parts of Europe, and that many of its individual components were developed separately at different periods of time. Some historians claim that the famous artist Leonardo da Vinci is the true father of the bicycle. In 1490, da Vinci sketched a remarkable facsimile of a modern bicycle, but his idea was never implemented. Ironically, da Vinci also sketched a modern helicopter hundreds of years before it was officially "invented." Hmm. Anyway, about three hundred years later, a French inventor built something similar to a bicycle, called a running machine. This contraption was made of wood, and it had two wheels connected by a beam, but no pedals or a, um, steering mechanism. Riders propelled the machine by straddling the beam and pushing with their feet along the ground, like a scooter. You can imagine what steering and stopping were like. In 1817, a German named Karl von Drais improved the running machine by adding a front wheel that could be easily steered. He called his device a Draisienne, but because that word was hard to pronounce, it became popularly known as a "hobby horse," which was the name of a popular children's toy at

the time. Hobby horses were a popular fad for awhile. However, they were still hard to ped-- still hard to propel along the unpaved roads of that day.

Many credit Kirkpatrick Macmillan with the invention of the first modern bicycle in 1839. Macmillan, a Scottish blacksmith, made a rear-wheel driven machine that people said could reach high speeds -- high being a relative term, of course. The French, however, said, er, took exception to Macmillan's claim. To this day, they call Pierre Michaux the "father of the bicycle," because Michaux and his son, Ernest, added pedals and cranks in the mid-1860s. Their called their innovation a velocipede, which means "fast foot," and it sparked a bicycle craze in both Europe and the US. Um, just like hobby horses, though, the popularity of velocipedes was short-lived. Turns out velocipedes were heavy, clumsy to mount and steer, and, despite their nickname, slow.

Next, in 1870, a British engineer named James Starley developed a more efficient, all-metal machine. Starley dubbed it a "penny farthing," and later it was the first machine to be called a bicycle -- meaning "two wheels." Penny farthings had a gi --er, large front wheel and a small back wheel, along with wire spokes and something new: solid rubber tires, courtesy of another Brit -- R.W. Thompson -- who had patented the first type of rubber inner tube in 1845. These tires provided a smoother ride, because the as the large front wheel could travel, um, farther with one rotation of the pedals. Penny farthings had a serious fault that proved to be their undoing. The front wheel was cartoonishly large, as high as 60 inches off the ground, and the rider's seat sat directly atop the

wheel, so when riders fell, they risked serious injury. It was akin to falling off a horse.

What to do? Well, engineers experimented with a variety of different designs. One of these included adding a third wheel, which was the birth of the modern tricycle. British engineers, including Starley, led the way in this effort. In the mid-1880s, the Starley Rover "safety bicycle" was introduced. This machine looked like a modern bicycle, with equal-size wheels and a rider's seat positioned between them, and uh- above the pedals. It also had a chain drive, gears, and a new kind of rubber tire that helped absorb shocks from bumpy roads. Although the Rover was much more steady, er, stable than penny farthings, riders still complained of vibration and road shock caused by the smaller wheels. So inventors got to work again. They developed springs in the frame to help absorb road shocks, and as roads became better, the 1890s saw a worldwide bicycle craze. Bikes were now safe, reliable forms of transportation that could be used for both work and leisure.

Keeping the basic shape of the Rover, bicycle design kept improving after the turn of the century. Childrens' bikes boomed after World War I, and in the 1970s "ten-speed" bikes became popular, with adjustable gears for going up and down hills. Later, "mountain bikes," with wider tires and up to 30 gears, came into vogue. Today, bicycles are no longer limited to the road. There are mountain bikes, road bikes, motorized bikes, and electric bikes. Who knows what the future holds? Maybe bikes will be able to fly.

1. What is the main topic of the lecture?

(A) Bicycle invention (B) The history of bicycles

(C) Penny farthings (D) Modern bicycles

2. How does the professor organize the information about bicycles that he presents to the class?

(A) Chronologically (B) Spatially

(C) Causally (D) Topically

3. What does the professor imply about Leonardo da Vinci?

(A) He was a great artist.

(B) He was mentally ill.

(C) He rode a bicycle.

(D) He was a visionary inventor.

4. What are "penny farthings"?

(A) Wooden bicycles with no pedals

(B) Bicycles with pedals and equal-size tires

(C) Bicycles with a large front wheel

(D) Bicycles with chains and gears

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: Many credit Kirkpatrick Macmillan with the invention of the first modern bicycle in 1839. Macmillan, a Scottish blacksmith, made a rear-wheel driven machine that people said could reach high speeds -- high being a relative term, of course.

5. Why does the professor say this: "high being a relative term, of course"?

(A) To highlight a difference between old-fashioned and modern bicycles.

(B) To let students know that he is a relative of Kirkpatrick Macmillan.

(C) To illustrate a previous point about the speed of bicycles and cars.

(D) To make a joke about bicycles having high front wheels.

6. Which of the following types of bicycles is NOT mentioned in the lecture?

(A) Hobby horse (B) Velocipede (C) Quadruped (D) Rover

# TOEFL Listening Lecture 17

*Listen to part of a university lecture by a professor of*  
**Anthropology.**

Professor: I'd like to talk to you for a few minutes now about cargo cults. Cargo cults are an odd backwater of primitive religious thought, but nevertheless, they do offer some interesting insights into the actual functioning of some early religious beliefs. They're valuable because they can be observed today- remnants of these primitive cults still exist- and one of the most remarkable is the annual celebration of John Frum Day every February the fifteenth in the Republic of Vanuatu. On John Frum Day, the villagers dress up in homemade US Army uniforms, fly the Georgia state flag, and march around the town in formation, carrying bamboo rifles on their shoulders. All this is an effort to magically attract the US Army, with its cargoes of cigarettes and canned Spam and and flashlight batteries, back to Vanuatu.

A cargo cult is a kind of body of religious practices that sometimes appears in a traditional tribal society, a culturally isolated society, as a result of the shock of sudden confrontation with another, previously unimagined, technologically advanced culture. The cult focuses on gaining for itself the material wealth, the manufactured goods, the magical inventions, all the wonderful things that the industrialized culture introduces them

to- things like canned goods, jars and bottles, fabric and clothes, uh, tents, weapons, dishware- you name it. And, since they cannot comprehend-or do not believe- the real explanations for the sources of this wealth, they attempt to acquire it through the ways they know- through magic and ritual, through such practices as fetishism, idolatry, and sympathetic magic.

Just to remind you- we've already learnt that 'fetishism' is the belief that inanimate objects- amulets, talismans- possess magical powers. Idolatry is simply the worship of idols- statues or other representations- as gods. And sympathetic magic and medicine, as you'll remember, are based on the idea that one thing can affect another because they are similar in some way or are otherwise somehow spiritually connected.

Now, the cargo cults that we know about have been a rather limited phenomenon, both in time and in space. Essentially all of them have developed in the scattered islands of the southwest Pacific, in Micronesia and Melanesia, and they arose between the late nineteenth century and the mid-twentieth century, peaking during the second World War. The indigenous peoples of these island groups- places like Vanuatu, Fiji, Papua New Guinea- are mostly of the same cultural ancestry, and they have many similar traditions and beliefs. This is the region, for instance, where most of the stories of cannibalism have come from. On these islands of limited resources, physical hard times or religious beliefs sometimes drove them to eat each other and the occasional missionary- either as a simple source of food or in order to gain the knowledge or abilities of the eaten, an unfortunate example of sympathetic magic.

Anyway, these cultures were also similar in that their tribal leaders were expected to share any wealth they acquired with the other members of the group, and also, their deceased ancestors were presumed to be watching over the tribe to be sure of the economic comfort of their living descendants. These circumstances all came together to create the cargo cult mentality.

When the new, dominant 'leaders' suddenly arrived- the European explorers and missionaries and colonists that appeared as early as about 1870 or so, and then, after them, the Japanese, Australian and American armies of World War Two- they were not so generous with their mysterious material wealth. And when these powerful people suddenly left, as the US Marines suddenly left Vanuatu at the end of the war, access to their goods disappeared with them.

The natives felt cheated, they felt abandoned, by their gods and ancestors, and a third aspect was added to the rationale of the cargo cults- the belief that they could, through ritual magic, by performing all the right steps and ceremonies, call up the material goods themselves, or that an armageddon was coming, when their gods and ancestors would return and bring with them all the worldly goods that they desired. This latter belief may well have been aided and abetted by their introduction to Christianity, whose ideas were mixed loosely into their belief system- a result of the many years of Christian missionary work in these islands.

On Tanna Island in Vanuatu, where John Frum Day, as I mentioned, still survives, there are bright red crosses- the emblem

taken from military ambulances- decorating village gardens as religious icons. And on island hilltops, the islanders have laid out dusty airplane landing strips and built bamboo control towers, where they take turns listening to coconut radios and waving torches as landing signals- all in the hope of attracting the supply planes they continue to expect. On other islands, the cargo cults build large straw-and-bamboo airplanes as decoys to lure other planes down from the sky.

These activities, these ceremonies and rites, give us a vivid, a very graphic, picture of how primitive religious thinking can work. But you know, we should be careful not to assert our own 'superiority' when examining such ideas. Sometimes the Tanna islanders are asked why they are still waiting for such an unlikely salvation- and they often answer that they have only been waiting for about seventy years, while the Christians have been waiting their savior for almost two thousand years!

1. Which is NOT true of cargo cults?

- (A) They are concentrated in Melanesia and Micronesia.
- (B) They were cannibalistic in origin.
- (C) They concentrated on acquiring material goods.
- (D) They were affected by Christianity.

2. Why are red crosses erected on Tanna Island?

- (A) As religious symbols
- (B) As icons to attract wealth
- (C) As images to attract tourists
- (D) As indicators of medical clinics

3. Which is NOT a part of the John Frum Day celebrations?

- (A) Bamboo airplanes
- (B) A mock military parade
- (C) Costumes
- (D) A flag-raising.

4. Why does the professor mention cannibalism?

- (A) To warn travellers bound for the area
- (B) To emphasize the primitiveness of the natives
- (C) To give an example of fetishism
- (D) To support the cultural similarity of the peoples

5. Some South American tribes shrank the heads of their victims. Which traditional religious practice might shrunken heads most likely exemplify?

- (A) Idolatry
- (B) Fetishism
- (C) Sympathetic magic
- (D) All of the above

6. How does the professor seem to view cargo cults?

- (A) As an inevitable outcome of the clash of cultures
- (B) As an unfortunate result of World War II
- (C) As an interesting sidelight on religious beliefs
- (D) As an essential step in the development of religions

# TOEFL Listening Lecture 18

*Listen to part of a university lecture in **Biology**.*

Professor: Well, we've now studied the main subclass of mammals, the placental mammals, and also the subclass of marsupials- and now we ought to just quickly survey the third and smallest subclass, an odd little group called the 'monotremes'. The best-known monotreme, of course, is the duck-billed platypus, and I know you've all heard of that strange portmanteau animal. Well, the platypus is the only member of its family. There's just a single species of ornithorhynchid- this family name just means 'bird-nosed'. The other family of monotremes are the echidnas or spiny anteaters, the tachyglossids. This family name means 'fast-tongued', and there're only four species of these. So altogether there're just five species of monotremes.

The platypus lives only in the streams and ponds of eastern Australia, and the echidnas live in the forests of Australia and nearby New Guinea. So their ranges are very restricted. Nevertheless, a fossil monotreme found in Argentina suggests that the monotremes were once globally distributed.

These animals have a number of characteristics similar to reptiles, but it is important to realize that they're no more closely related to reptiles than any other mammal group, and it'd be a mistake to consider them as more primitive. It's just that after evolving from

their therapsid ancestors, the monotremes broke off from the other mammals- about 150 million years ago- and went their own evolutionary way.

Platypuses, or platypi, look very different from echidnas, but these animals have several characters in common that separate them clearly from the placentals and marsupials. First, well, as their name says, they're monotremes- they're 'single-holed'. Their genital and excretory functions exit from the body from the same aperture, called a cloaca. Monotremes also have a low metabolic rate- that is, a lower body temperature- and they lay eggs. Like other mammals, though, they lactate, they produce milk, but they have no nipples. The females just secrete milk onto their skin, where the babies lap it up. The other things that make these animals mammals are that they're covered in fur, they have a mammalian dental pattern, and they have a four-chambered heart.

Nevertheless, the duck-billed platypus is so bizarre-looking that when it was first discovered by Western scientists, at the end of the 18th century, they thought it was a hoax, a ruse- a real portmanteau animal, an animal made up by attaching a duck's beak to a mole's skin. Because the first specimen arrived in England by way of the Indian Ocean, scientists suspected that the creature was actually sewn together by Chinese or Japanese sailors, who were known for their skill at this kind of practical joke.

The platypus's bill is like leather- it's soft and flexible, and it's sensitive both to touch and to weak electric fields. It uses both of these to find its food- crustaceans and other invertebrates- in the

muddy waters it lives in. It has soft, thick, water-resistant fur, it has webbed feet, and a broad, flat tail- so it's well-adapted to its aquatic existence, and it probably hasn't changed much in the last few million years. And don't try to pick one up- the males have poisonous spurs on their back legs that can be very dangerous!

Now, the echidnas- some recent DNA research has suggested that the echidnas evolved from a platypus ancestor relatively recently- only about 30 million years ago- so their evolution's been more active than the platypus's. Echidnas- or spiny anteaters, which is a much clearer name for them- sorry, I'm just used to calling them echidnas- anyway, they're totally different-looking animals. They are stocky, sturdily-built guys with powerful claws and digging muscles. They live in forested country, where they dig for termites, ants and other invertebrates. Instead of a broad duck's bill, they have a long, tubular, toothless snout and a long, extendible, sticky tongue- which accounts for their family name, tachyglossids, of course. Like the platypus, they also have electroreceptors to help locate food. Echidnas are covered with spines, and when they're threatened, they erect these spines and roll into a prickly ball that's very hard to attack.

And one little-known behavior of the echidnas is their 'love train'. Echidnas are normally solitary animals, but in breeding season, a female will attract several to a dozen males, who follow her around closely in single file for up to six weeks, before she finally chooses one to mate with. Then she lays her single egg in a temporary pouch that she develops.

Platypus populations seem to be holding their own, and echidnas sometimes wander across suburban gardens in Australia, but the New Guinea Long-beaked Echidna is in danger of extinction- it is a highly-sought-after prize for local traditional hunters. It'd be a shame to lose such interesting creatures from the earth, so I hope that efforts will be made by the Indonesian and Papua-New Guinean governments to protect these little guys.

1. What is this lecture mainly about?

- (A) The conservation of monotremes
- (B) The smallest group of mammals
- (C) The evolution of the platypus
- (D) The animals of Australia

2. What does 'monotreme' mean?

- (A) Fast-tongued (B) Bird-nosed
- (C) Single-holed (D) Tube-snouted

3. How has the professor organized his lecture?

- (A) From an evolutionary standpoint
- (B) By habitat
- (C) According to geographical ranges

(D) From general to specific groups

4. Which is NOT a common characteristic of monotremes?

(A) They have a limited range.

(B) They are endangered species.

(C) They lay eggs but produce milk.

(D) They have a four-chambered heart.

5. Why does the professor mention a fossil from Argentina?

(A) To show how old monotremes are

(B) To show the extent of monotreme research

(C) To show how widespread the monotremes were

(D) To show that echidnas evolved from platypi

6. What did the early naturalists think about the first platypus specimen?

(A) It was a new species of duck. (B) It was captured in India.

(C) It was a new species of mole. (D) It was created by sailors.

# TOEFL Listening Lecture 19

*Listen to part of a university lecture on **Modern World History**.*

Professor: And one of the most dramatic political events of the twentieth century was the rise and fall of the Berlin Wall, which stood between East and West Berlin, and between West Berlin and East Germany, for twenty-eight years- from 1961 to 1989.

At the end of the second World War, Germany was partitioned by its occupiers into four zones- the US, British, French, and Soviet Russian zones- at the Potsdam Conference, in the summer of 1945. And Germany's capital city, Berlin, was divided in the same way, even though the city lay completely inside the Russian zone of the country. At first, there was a cooperative intention to eventually reunite Germany, but instead, tensions increased between the Allies and the Soviets, as the Cold War- the war of Communist ideology versus Capitalist ideology- emerged. In 1948, the Soviets tried to starve the Allies out of Berlin by closing all the land routes to the city to Allied transport, but US President Harry Truman ordered a military airlift of supplies into the city. He defied the Soviets and singled the resolution of the Allies to remain in their isolated sectors, come what may.

The idea of reuniting the country fell apart. In 1949, Germany was reorganized. The three Western powers combined their zones and formed the Federal Republic of Germany, or 'West Germany',

and immediately after this, the Soviets formed the German Democratic Republic, or 'East Germany', from their zone. And the city of Berlin was similarly divided into West Berlin and East Berlin. West Berlin, in the middle of East Germany, became an island, but at that time the borders were open, and many Berliners crossed relatively freely from side to side, including some 60,000 East Berliners that commuted daily into West Berlin to work.

But West Germany prospered very well- in fact, it was labelled an "economic miracle"- but the economic and social conditions in East Germany failed terribly, so thousands of East Germans began emigrating from East to West, and the handiest portal- and the symbol of prosperity and freedom- was West Berlin. By 1961, about two and a half million East Germans- that's about fifteen hundred people a day!- had fled to the west. East Germany was losing its workforce- in fact, it was losing its population.

At the Vienna Summit in June of 1961, Soviet Premier Krushchev and US President Kennedy's discussions were so cold that both sides brought up the possibility of another war, and this danger of war explains the low-key reaction of the Allies on August 13th, 1961, when East German tanks and soldiers suddenly moved up to the boundary with West Berlin and began tearing up the streets, cutting communications, and constructing a hundred-and-twelve-kilometer wall around the Allied sector of the city. They finished their work in twenty- four hours, and West Berlin was completely cut off from East Germany.

This first wall was little more than a long barbed-wire fence, and escapes became so common that a succession of four walls- each

more imposing and more impregnable than its predecessor- were eventually constructed. The fourth and final wall, built in 1975, was made of reinforced concrete nearly four meters high, and also included a lighted control strip, a vehicle ditch, three hundred watchtowers, twenty bunkers, a patrol road- and then a second fence!

During its existence, about five thousand people managed to escape over the wall, but also, more than a hundred people were shot and killed. As security got tighter, people devised other methods of escape. They jumped over the wall from adjacent buildings, or they tunneled under it. One of the most imaginative escapes was by two families who collected hundreds of remnants of nylon cloth, sewed them together to make a hot-air balloon, and then floated over the wall to freedom.

Under Erich Honeker's draconian leadership, life just got worse and worse in East Germany. But then, in the summer of 1989, Hungary's borders suddenly opened, immediately creating a broad new escape route. At about the same time, there were loud student demonstrations in Leipzig demanding that the wall come down. Meanwhile, Soviet Premier Mikhail Gorbachev had announced that the Soviet Union would no longer suppress popular movements in its satellite states. This was the time when the Iron Curtain was starting to show its cracks everywhere.

And on November ninth, 1989, Gunter Schabowski, who was the leader of the East Berlin Communist Party, almost accidentally mentioned at a live press conference that the country's travel restrictions were going to be lifted "immediately" for "private trips

abroad". East Berliners rushed to the checkpoints by thousands, and the uncertain border guards, wanting to avoid violence, let them pass through to West Berlin.

In the next days and weeks, "wall woodpeckers" appeared—hundreds of citizens began to tear down the wall themselves with picks and hammers and chisels. The reunification of Germany was officially concluded on October third, 1990, and today only remnants of the Berlin Wall remain as a memorial and as a warning against the evils of totalitarianism.

1. What happened at the Potsdam Conference?

- (A) Khrushchev threatened war over West Berlin.
- (B) Germany was divided into four parts.
- (C) A wall between East and West Berlin was devised.
- (D) Mikhail Gorbachev announced the independent status of the Soviet satellites.

2. What part did US President Harry Truman play in this history?

- (A) He ordered the Berlin airlift of goods.
- (B) He united the Western sectors of the country.
- (C) He confronted Soviet Premier Khrushchev.
- (D) He protested the erection of the Berlin Wall.

3. Judging from the lecture, which factor probably contributed most to the destruction of the Wall?

- (A) Fascist oppression
- (B) The wall's inability to stop escapees
- (C) The Vienna Summit
- (D) Economic hardships

4. Who announced the opening of the Berlin Wall?

- (A) Mikhail Gorbachev (B) Erich Honeker
- (C) Gunter Schabowski (D) John F. Kennedy

5. What is the main thrust of this lecture?

- (A) The confrontation of East and West over the Iron Curtain
- (B) The economic miracle of West Berlin across the Berlin Wall
- (C) The Berlin Wall as the symbol of totalitarian oppression
- (D) The chronological history of the Berlin Wall

6. Who were "wall woodpeckers"?

- (A) Citizens who destroyed the Berlin Wall
- (B) East Berliners who attempted to escape to the West
- (C) Students who demonstrated against the Wall in Leipzig
- (D) Border guards who tried to prevent the exodus in November 1989

# TOEFL Listening Lecture 20

*Listen to part of a university lecture on **the history of the English language**.*

Professor: So, the next really significant step in the development of the English language- in the development of both our language and certainly our literature- is Geoffrey Chaucer and his Canterbury Tales. And there is no way I can overstate Chaucer's important place in the history of our language.

It's easy to remember his time on the historical timeline of the English language- he died in the year 1400, at the very beginning of the fifteenth century. England had been under Norman-French rule for three hundred years by then- ever since the Norman Conquest in 1066. With William the Conqueror, Norman-French had become the language of power and commerce in England. In fact, the court of Chaucer's king, King Richard the Second, was probably the first English-speaking English court since the Conquest. So, for the previous three hundred years, England had been more or less bilingual, practically speaking. The Anglo-Saxon or Germanic English of the common people, and the Anglo-Norman-French of the court and the clergy and the schoolmen- these had been influencing each other for a long, long time.

Geoffrey Chaucer wasn't an aristocrat, but he came from a very well-to-do family, and as a young man, he was sent into royal service- at first as a sort of butler. This was a common practice in those days, a way to advance a family's fortunes. In his long career, Chaucer held many jobs. He was by turns a soldier, a courier, a diplomat and a public official. Consequently, he travelled widely in England- and to France, Spain, Italy and the Netherlands- and he spoke French, Italian and Latin. So it should be no surprise that his greatest work, 'The Canterbury Tales', strongly reflects the influence of the continental writers, both in style and in content. For instance, the Clerk's Tale is an adaptation of Petrarch's version, and the Knight's Tale is based on Boccaccio's 'Teseida', and even the framing narrative for all the tales- the pilgrims' journey to Canterbury town- is modelled on Boccaccio's 'Decameron'.

However, it was the influence of the great Italian writer, Dante Alighieri, which mattered the most, because Dante set a real precedent in abandoning Latin to write his 'Divine Comedy' in contemporary Italian, and following Dante's lead, Chaucer abandoned Latin and French to write in vernacular English- and he did this with such great success, with such excellence, that his English style set the standards for the next two hundred years.

Chaucer had no constraints in how he wrote, really. English hadn't yet been used seriously for literature. English didn't have any history of style- it didn't even have a formal grammar or a dictionary. What Chaucer had was a liberal education, a broad experience of the world, and a keen ear for how language- the languages of England- were used by the people. And with these

abilities- and with his great poetic talent- he created a new, a fuller and richer, blend of what would eventually emerge as our modern language.

About fifty percent of Chaucer's vocabulary has its source in the Romance languages, but they weren't French or Italian or Latin borrowings- his language wasn't a hybrid of his own devising. Chaucer wasn't coining words from his familiarity with continental French or Italian. No, Anglo-Norman still had a very strong presence in England, and it's this that Chaucer's vocabulary reflects. Much Norman-French had entered the English vocabulary by Chaucer's time, and its foreign origin was recognized as little as we today recognize the foreignness of the words 'hotel' or 'parachute'. Words like 'bachelor' in the Merchant's Tale carry the Norman-French meaning of 'an unmarried man'- as it primarily does today- not the continental French meaning of 'a high school graduate'.

Now, the Canterbury Tales might seem a little daunting to try to read at first, because there were no spelling rules for the Middle English of Chaucer's time, and word endings were much more like the Anglo-Saxon in the pronunciation, for instance, of final '-e' and '-ed' as separate syllables, so Chaucer's rhymes are sometimes hard to understand.

And also, the Great Vowel Shift had not yet taken place. The Great Vowel Shift is the main difference between Middle English and Modern English. It consisted of major changes in the sounds of all of the English long vowels, and this happened during the fifteenth

to eighteenth centuries. So many of Chaucer's words may be difficult for you to recognize now.

Nevertheless, good modernized texts of the Tales are available- both Penguin Books and Bantam Classics have good, readable editions- and it'd be well worth your while to sit down with the Canterbury Tales and enjoy the engaging humour, the keen observations, and the outstandingly rich poetry that makes this work truly great and which has caused Chaucer to be called the father of English literature.

1. According to the lecture, which statement is NOT true?

- (A) Chaucer was from a wealthy family.
- (B) King Richard II spoke English.
- (C) Chaucer was born in 1400.
- (D) 50% of Chaucer's words were Germanic in origin.

2. What did Chaucer have?

- (A) An English dictionary
- (B) A good vocabulary
- (C) A style manual
- (D) A formal grammar

3. Why is Dante Alighieri important?

- (A) Chaucer adapted one of his tales for 'The Canterbury Tales'.
- (B) Chaucer met him in Italy.

(C) Chaucer structured 'The Canterbury Tales' after his 'Divine Comedy'.

(D) He gave Chaucer the idea of writing in English.

4. What makes 'The Canterbury Tales' easier to understand?

(A) Modernized versions (B) The Great Vowel Shift

(C) Spelling conventions (D) Its Romance vocabulary

5. The lecturer mentions the word 'hotel' as an example of what?

(A) A Norman-French rather than a continental French word

(B) A Germanic word absorbed into Norman-French

(C) A Middle English word carried into Modern English

(D) A foreign word recognized as English

6. Which do you think is nearest to the author's viewpoint?

(A) Chaucer introduced a vast number of Germanic and Romance words into our vocabulary.

(B) Chaucer's use of English led to the Great Vowel Shift.

(C) Chaucer was the bridge between Old English and Modern English.

(D) Chaucer was the first great English author.

# TOEFL Listening Lecture 21

*Listen to part of a university lecture by a professor of **Social History**.*

Professor: Let's talk for a while about bread. Yes, you heard me-bread! All over the world, in Europe and the Americas and in most of Asia, bread is the "staff of life", it's a key food in people's diets. Almost everyone eats bread- we eat it as toast for breakfast, as sandwiches for lunch, as hamburger buns for dinner- or people eat it as croissants or roti, naan or chappati, or under hundreds of other names in as many different languages. Even in southeast Asia, where rice is King, bread is becoming more and more popular these days. And it should, because it's a very healthy and nutritious, convenient, delicious food!

Man has been making bread since the Stone Age. It's at least ten thousand years old. And it's certainly a fundamental part of our culture here. It's a significant part of our diet, and even a significant part of our psyche. We talk about a worker being a "breadwinner", someone who "puts bread on the table", and our job is our "bread and butter". We call any rich agricultural area of a country its "breadbasket". And in fact, "bread" and "dough" are both current slang for "money", which is another fundamental necessity in our society.

Bread's been so vital to our lives that it's also been an important political issue over many centuries of British history. In very early times, in times of irregular weather and poor agricultural practices, England often went through periods of failing crops and famine, and our rulers were well aware that famine created unrest among the people, so they tried to keep the price of bread, the poor man's staple food, from fluctuating too much. The earliest recorded law was issued in 1202, during the reign of King John. This law not only fixed the selling price of bread, but it also specified what portion of that price was supposed to apply to the cost of ingredients and what portion was supposed to apply to the baker's profit. This same law, which was revised in 1266, remained in effect for the next six hundred years.

Throughout our history, our governments have tried to keep the price of bread low and keep its quality good, and they have made repeated efforts to prevent dishonesty and corruption in the baking industry. For instance, there're records from 1298 of bakers being given heavy fines for selling short weights of bread, and in 1327 they discovered a fraud where the public bakers were pinching quantities of the dough that their customers brought in to have baked.

Punishments were rather severe- they included being dragged through the streets and pilloried, or just put out of business. In ancient Egypt, the punishment could be even worse- dishonest bakers often had their ears nailed to their bakery door- but here the restrictions and punishments were still so draconian that the bakers themselves took steps to ensure that they provoked no claims against them. They provided honest loaves by creating the

"baker's dozen", which still means thirteen objects instead of the normal twelve. By throwing in one extra bun or roll, the baker insured that the dozen he sold was of sufficient total weight to suit the regulations.

By the late 1800s, industrialization had revolutionized the baking industry, and the opening of the North American prairies was providing such abundant wheat that white bread- bread from refined flour- could be produced at a price that even the poorest could afford. Nevertheless, with the hardships of both World Wars, the government was still very conscientious about protecting people's bread. Many regulations were issued during wartime to control wastage and the ingredients that could be used, and prices were capped.

The latest major advance in bread-making was the development of the Chorleywood Bread Process in 1961, which kneads the dough rapidly and vigorously, and reduces the fermentation period. This drastically shortens the time needed to produce a loaf of bread, and it also permits the use of inferior wheat. The Chorleywood Process is now used in most of the largest bread factories around the world, which churn out vast quantities of white bread for the masses.

What's fermentation, you ask? For those of you who don't know how bread is made, it's very simple, really. Bakers take advantage of two basic natural facts. First- they use yeast, which is a kind of fungus, a plant that eats sugar and then produces alcohol and carbon dioxide as waste products. Second- finely ground wheat, when it's mixed with water and kneaded well, becomes very

elastic, because it contains a protein called "gluten". As the yeast grows and produces carbon dioxide, the gas inflates the elastic bread dough just like so many tiny balloons, and the alcohol, which burns away during the baking, leaves behind it an important component in the flavour of bread.

Out of this very simple, natural process has come a ubiquitous food and a major industry that has impacted our social history, our culture, our politics, and our whole way of life.

1. Why does the lecturer tell us that "bread" and "dough" are slang for "money"?

- (A) To give examples of modern language
- (B) To make his lecture more clear
- (C) To emphasize the importance of his topic
- (D) To show that money is a basic need

2. Which event or development did NOT strongly influence the history of bread?

- (A) Food shortages in England
- (B) Wheat cultivation on the prairies
- (C) The invention of the Chorleywood Process
- (D) King Rice in southeast Asia

3. Which word best suggests the government's approach to the bakery industry?

(A) Regulation

(B) Fermentation (C) Industrialization (D) Fluctuation

4. Why does the lecturer describe the bread-making process?

(A) It's a critical political point.

(B) A student asked him about it.

(C) It determined government concern about bread supplies.

(D) Her students might be curious.

5. What is a "baker's dozen"?

(A) A recipe (B) Thirteen (C) A punishment (D) Short weight

6. Why is the Chorleywood Process useful?

(A) It makes bread faster. (B) It processes better wheat.

(C) It makes bread factories possible.

(D) It prevents corruption in the industry.

# TOEFL Listening Lecture 22

*Listen to part of a university lecture by a professor of **Natural History**.*

Professor: Now, as a part of our study of biological evolution and evolutionary processes, let's look for a few minutes at an extraordinary group of bird species, the Birds of Paradise. You may've seen pictures of some of these fantastic birds-- I think there's one in the next chapter of our textbook. The male Birds of Paradise are incredibly beautiful creatures. They have extremely elongated and very elaborate sets of many-coloured feathers arising from their head and tail and wings, and when the males display for the females during courtship, they can erect and manipulate these feather tracts, waving or shaking or twirling or wiggling these feathers. And at the same time they often assume very odd postures or do acrobatics- so they put on quite incredible performances to attract females.

In fact, the male plumage is so gorgeous that Bird of Paradise skins have been highly valued trade items for hundreds, if not thousands, of years. The Birds of Paradise are restricted almost entirely to the tropical jungles of the New Guinea archipelago, to the large island of Papua-New Guinea and its surrounding islands. Not only have the Papuan men traditionally adorned themselves with Bird of Paradise feathers since before history, but these

feathers appeared as rare and valuable trade goods in other parts of Asia as long as two thousand years ago.

However, they weren't discovered by the Western world until the sixteenth century. In 1520, the famous Portuguese explorer, Ferdinand Magellan, was given several Bird of Paradise skins by the Sultan of Batchian- in the Moluccan Islands- and they created quite a sensation back in Europe. As exploration expanded, more and more skins were sent to the United States and Europe, and the beauty of the feathers resulted, of course, in their becoming fashionable decorations for ladies' hats. By the end of the nineteenth century, thousands of trade skins had been exported from New Guinea. Through London alone, between the years 1904 and 1908, 155,000 skins were imported.

Luckily, it was about this time that groups like the Audubon Society and the Royal Society for the Protection of Birds were becoming active defenders of wildlife, and from 1908, laws banning the import of bird feathers were beginning to be passed in many countries. In 1955, the government of Nepal was having difficulty getting new Bird of Paradise plumes for the Royal Nepali crown for the coronation of their new King, Mahendra, until they finally arranged for replacements from an illegal shipment of skins that had earlier been confiscated by the US Customs Service.

At last, in 1990, Indonesia itself passed a law banning the trade in Bird of Paradise skins. Incredibly, none of the Birds of Paradise are Endangered species today, although several are on the Vulnerable list and on the Near Threatened list. Today, only

sustainable hunting for ceremonial purposes is permitted to the local native tribes.

There's about forty species of Birds of Paradise, and they're really outstanding examples of the evolutionary phenomenon of species radiation from a single ancestor, because each isolated mountain range in the New Guinea archipelago has its own unique, endemic species- species that're found nowhere else in the world. The Birds of Paradise are all very closely related- actually, they're all closely related to our common crows!- but each species has evolved in isolation into something that looks and behaves very different from its relatives on the next mountain or in the next valley. In fact, elevation is probably the single most important ecological sorting mechanism for the adaptive radiation of these birds into so many different, unique forms.

On top of their extraordinary plumage, these birds've also developed a whole range of breeding strategies. A few species are monogamous- which means that one male and one female mate and raise young. But most species are polygamous, where the males try to attract and mate with as many females as possible, and the females raise the young birds alone. Some of these polygamous males perform single, non-territorial displays when they find a female. In other cases, the single male frequents some sort of regular display ground, called a 'court', where he may clear a space and perform for passing females. And in yet other species, the males gather at distinctive, traditional, communal display grounds called 'leks'. Here, many males will compete for female attention and perform as energetically as they can, because the females choose the ones who put on the best

show. The native Papuans call these performances 'sakaleli' or 'dancing parties', and they are truly amazing exhibitions. Just picture a dazzling gold-white-and-green Greater Bird of Paradise, who leans forward and downward, and lowers his open wings to display his large, lacy, golden flank feathers raised above his back and over his head like Japanese fans. Or the immaculate black-and-turquoise Blue Bird of Paradise, who hangs completely upside-down and flexes his legs slowly and rhythmically to vibrate his long, thin tail feathers for the ladies.

This big, sequential radiation of behaviours and plumages- as well as similar sequential variations in morphology and feeding habits- is a really rich source of research opportunities for graduate students, and I hope that some of you will have the chance to participate in Bird of Paradise research during your careers, because they are amazingly beautiful birds with fascinating habits.

1. According to the lecturer, why do Birds of Paradise have amazing plumages?

- (A) To exploit habitats
- (B) To differentiate species
- (C) To defend territories
- (D) To attract females

2. Why does the lecturer mention King Mahendra?

- (A) He gave Magellan some Bird of Paradise skins.
- (B) He banned the export of Bird of Paradise feathers.

- (C) He needed some Bird of Paradise feathers.
- (D) He authorized research on Birds of Paradise.

3. Based on the information in this lecture, which is NOT true?

- (A) Some species of Birds of Paradise are Endangered.
- (B) Some species of Birds of Paradise are Vulnerable.
- (C) Some species of Birds of Paradise are Extinct.
- (D) Some species of Birds of Paradise are Near Threatened.

4. When did Indonesia ban trade in Bird of Paradise feathers?

- (A) 1908 (B) 1919 (C) 1955 (D) 1990

5. According to the lecturer, which factor was the main cause of the differences among Bird of Paradise species?

- (A) Altitude (B) Islands
- (C) Tropical forest (D) Breeding strategy

6. Which would make the best title for this lecture?

- (A) Adaptive Radiation (B) The Skin Trade
- (C) The Birds of New Guinea (D) Endangered Species

# TOEFL Listening Lecture 23

*Listen to part of a university lecture by a professor of **American History**.*

Professor: Now, one of the most interesting events, I think, in Afro-American history, was the development of the Underground Railroad in the years before the Civil War. I guess you've all heard of that, right? Then you know that the Underground Railroad wasn't a real railroad- it just got that name, in about 1831, because at that time the new steam engines, the new steam railways, were becoming important in the US economy.

So, the Underground Railroad wasn't a railroad- it was a network of people who helped slaves in the South escape to the North, to the northern states and to Canada, mostly, but also to the West, to Mexico, and to the Caribbean as well. These people were black and white, abolitionists and free Blacks and various religious groups, and they helped slaves escape from their masters, they hid them in their houses, and they secretly conveyed them- by wagon, by boat, and on foot- to places where human slavery was illegal.

It's believed that the system was started by a Quaker, Isaac Hopper, near the end of the 18th century, because he had begun organizing ways to assist runaway slaves at that time. It's documented that, in 1786, George Washington- before he became the first US President- complained that one of his slaves

was helped to escape by, quote, "a society of Quakers, formed for such purposes", unquote.

The Underground Railroad never was extensively organized, though. It was just an informal network of safe houses and secret routes and meeting points. The people involved didn't know any of the details of operations beyond those in their own immediate area- probably just enough to convey fugitives to the next station.

The participants used a kind of code, a kind of jargon, based on railway terms. The various hiding locations were called "stations", so the people who hid the runaways were called "stationmasters", and the people who guided them along the route, who transported them from meeting place to meeting place, were called "conductors". And the escaped slaves themselves were referred to as "passengers" or "cargo". One stationmaster, William Steel, helped hundreds of escaping slaves- as many as sixty a month- and he kept careful records, including individual biographies, that included these railway code phrases. Then he later published these accounts, after the war, in 1872.

Recently, some writers have claimed that quilt designs, quilt patterns, were used by the Underground Railroad as signalling devices, as signals directing fugitives to escape routes and so on. Supposedly, the quilts were hung out on fences or clotheslines in secret code patterns. And some other sources have suggested that some of the gospel songs of those days- including some still well-known spirituals like "Follow the Drinking Gourd" and "Steal Away", for instance- that these songs also contained coded messages to help guide the fugitives. But both of these ideas

have been debunked by serious historians, who can't find any contemporary evidence for either theory.

In any case, the Underground Railroad was most active between 1850 and 1860, and it is estimated that as many as a hundred thousand slaves had already escaped to the North by 1850. Southern slaveholders became so worried about their loss of property that they persuaded the US government to pass a strict Fugitive Slave Act, which forced officials in the free states to assist slave catchers from the South, and fined them for non-compliance. This angered northerners who had otherwise been willing to turn a blind eye to the practice of slavery in faraway places, and now Vigilance Committees were set up in many northern cities to raise money, provide food and shelter, and help relocate runaway slaves. In fact, the Fugitive Slave Act became one of the main Union causes during the Civil War.

The Underground Railroad had many brave participants, including Harriet Tubman, a free Black who risked her own freedom nineteen times in nineteen trips into the South. But she succeeded in escorting some 300 fugitives out of slavery. There was Levi Coffin, a Quaker, who helped more than 3000 slaves escape. There was Thomas Garrett, a Delaware stationmaster who paid more than 8000 dollars in government fines for his violations of the Fugitive Slave Act. And there was Calvin Fairbank, who spent almost twenty years in jail for his anti-slavery activities. Just to name a few.

Of course, as we all know, the Underground Railroad suddenly became unnecessary, and it came to an abrupt end, with the

onset of the Civil War and Abraham Lincoln's Emancipation Proclamation. Black troops joined in the war for freedom, and in 1865 slavery was at last gone from America.

1. What is this lecture mainly about?

- (A) Railroad history (B) Famous abolitionists  
(C) A method of escape (D) Slavery in America

2. Based on this lecture, who are NOT included as members of the Underground Railroad?

- (A) Quakers (B) Freed slaves (C) Abolitionists (D) Stockholders

3. What did the code word "conductor" mean?

- (A) Cargo (B) Housekeeper (C) Guide (D) Fugitive

4. Why is George Washington, the first US President, mentioned in the lecture?

- (A) He was a Quaker. (B) His slave escaped.  
(C) He issued the Emancipation Proclamation.  
(D) He instituted the Fugitive Slave Act.

5. According to the lecture, why is the use of quilts as signalling devices not believed?

- (A) The code is too complex.
- (B) Quilts are too colorful.
- (C) Railway terms were used instead.
- (D) No one mentioned them at the time.

6. When was this system first called "the Underground Railroad"?

- (A) 1786
- (B) 1831
- (C) 1850
- (D) 1872

# TOEFL Listening Lecture 24

*Listen to part of a university lecture by a professor of **Art History**.*

Professor: You know, one of the most significant movements in modern architecture and design took place in Germany in the nineteen-twenties and -thirties. It was called the 'Bauhaus Movement'. 'Bauhaus' just means 'Building School', and the Bauhaus was an art school, started in 1919. The Bauhaus program was the first model for our contemporary art schools, as we know them today. Its program was the first attempt to integrate the artist with the craftsman, and its philosophy was heavily influenced by William Morris, the great nineteenth-century English designer. Morris's theory was that form should follow function, that Art should serve the needs of society, that Art has a social function.

Of course, Modernism in art had already appeared some time before this- the great expressionists, like Vincent van Gogh, Edvard Munch, Marc Chagall, had been working since the late nineteenth century. But now, the horrors of World War One, along with the poverty and inflation that followed it, caused the German art community to turn to what they called the 'New Objectivity'. The Bauhaus design innovations reflected this with imaginative but very practical, simplified forms, with an emphasis on functionality and efficiency, and with the idea that mass production and artistic creativeness could work together. They were practical planners for the modern lifestyle.

The post-War government of the German Weimar Republic permitted a surge, an outpouring, of radical experimentation in all the arts- but at the same time, Germany was trying hard to remain economically competitive with Britain and the United States, even though it was suffering financial privation and even though it lacked natural resources. The Bauhaus movement recognized these difficulties and offered solutions to them, and in this way it contributed to both social and artistic change.

Bauhaus designs were pure and simple. The buildings, the interiors, and the furniture that the school created could all be built cheaply and efficiently. They emphasized straight edges and slim, smooth shapes, and a modern, hygienic freshness. In particular, the Bauhaus designers discovered steel. Steel furniture is cheaper, lighter, cleaner, and less bulky than the traditional stuffed, upholstered furniture, and steel has what they called 'the magic of precision'- it can be used in precise, definitive forms and measurements. In spite of this emphasis on practical functionality, many famous, creative designs emerged from the Bauhaus. If we look only at their chairs, four very original designs were created at the Bauhaus- the Wassily chair, Le Corbusier's 'Lounge Chair Number Four', the cantilever chair, and the Barcelona chair- and all four chair designs are very popular and are found everywhere today.

The 'Wassily chair' was designed by a Hungarian designer, Marcel Breuer, who was the director of the Bauhaus carpentry shop. It's made of a simple, cubical tubular steel frame, with canvas straps for the seat and back, and it has been in continuous mass

production since the early 1950s. Breuer said he got the idea for the Wassily chair's design from the handlebars of his bicycle.

Le Corbusier's 'LC4 Lounge Chair' is probably the most popular and most comfortable lounge chair ever built. Le Corbusier's idea was that 'a chair is a machine for sitting on', and this chair, which is gently curved to fit all the curves of the body, is still a popular design in spas and living rooms.

The 'cantilever chair' was designed by Breuer and Mart Stamm, a Dutch designer. It has no rear legs, but is supported by the tensile strength of the 'S' curve of its steel-tubing frame. This little chair is still an extremely common design for kitchens and restaurants.

And Mies van der Rohe's 'Barcelona chair' uses leather or cloth straps to suspend its seat cushion on a folding, 'X'-shaped tubular steel frame. His design became a symbol of the elegance of avant-garde living, but it's so simple that it's now seen in the luggage racks in most every hotel room in the world.

The Bauhaus movement is not really important for its chairs, though. It's important because it came along at the right time in history to popularize many key modern concepts of design. Many outstanding artists of that period lectured at the school- Le Corbusier, Walter Gropius, Mies van der Rohe, Wassily Kandinsky, Paul Klee, Lazlo Moholy-Nagy, Piet Mondrian. These great artists and their students were to lead contemporary design into daily life. Unfortunately, the rise of Adolph Hitler cut short the Bauhaus's exciting experiments. It was closed down by the Nazis after only 14 years of existence, in 1933. Hitler accused it of being a front for Jews, communists, and 'UnGerman' social liberals.

However, the Bauhaus lecturers and students fled Nazi Germany to the US, Russia, Israel, and western Europe. They continued to teach far and wide, and in this way, their ideas on contemporary architecture and design spread even faster throughout the world.

1. What is this lecture mainly about?

- (A) German design
- (B) Modern art
- (C) The 'New Objectivity'
- (D) Four chairs

2. Which designer did NOT work at the Bauhaus?

- (A) William Morris
- (B) Ludwig Mies van der Rohe
- (C) Piet Mondrian
- (D) Mart Stamm

3. Judging from the lecture, how would we most likely stereotype the Bauhaus artists?

- (A) Communist
- (B) Avant-garde
- (C) Expressionist
- (D) Mechanical

4. About how long was the Bauhaus School in operation?

- (A) 5 years
- (B) 15 years
- (C) 30 years
- (D) 50 years

5. Who designed the Wassily chair?

(A) Marcel Breuer

(B) Wassily Kandinsky (C) Paul Klee

(D) William Morris

6. According to the lecturer, what is the main significance of the Bauhaus Movement?

(A) It defied the Nazi regime.

(B) It designed four famous pieces of furniture.

(C) It was the first economically competitive movement. (D) It opened a modern art school.

# TOEFL Listening Lecture 25

*Listen to part of a university lecture by a professor of **Social History**.*

Professor: Is anyone in class wearing cotton today? Cotton socks? Jeans? I'll bet we're all wearing something made out of cotton. I'm wearing cotton underwear. Cotton's the most common natural-fiber fabric used in clothing. It comes from a sort of pod called a 'boll', which surrounds the seeds of a shrub that is native to tropical and subtropical areas all over the world- in Africa, in India, in the Americas. And the history of this fiber is intimately associated with much of civilized history.

Cotton's been collected, spun into thread, woven into fabric, and dyed in all sorts of colours and patterns, since prehistoric times. It was first cultivated in the Old World as long as seven thousand years ago, in the Indus Valley of northwest India, where the industry became so well-developed that some of their ancient methods of spinning and weaving continued to be used right up until the modern industrialization of India. And in the New World, they began cultivating cotton in Mexico about eight thousand years ago. This was in the pre-Inca cultures along the coast, and the colors and texture of their ancient textiles resemble the ones that are found in Egyptian tombs.

The use of cotton spread with the empire of Alexander the Great, and with the Moors, and with Marco Polo, and by the end of the sixteenth century, cotton was being grown commercially

throughout the warmer regions of Asia and America. Terrycloth, denim, chambray, corduroy, dimity, flannel, gingham, organdy, percale, poplin, seersucker- these are all cotton fabrics used today.

The Industrial Revolution in Great Britain boosted cotton production tremendously, and textiles became Britain's main export. The invention of machinery like the spinning jenny in 1764 and the cotton gin in 1793 dramatically expanded the industry. By the 1840s, India could no longer supply enough raw cotton for all the British factories, and then traders began to buy it from the new American and Caribbean plantations. This cotton was cheap, because it was worked by unpaid slaves, and cotton quickly became the basis of the economy of the American South.

Back in 1793, the US harvested only about ninety tons of cotton. In 1795, two years later, it harvested eight thousand tons of cotton. And in 1810, the US produced over 47,000 tons- all because of Eli Whitney's invention, the cotton gin. The cotton gin was a simple mechanism for cleaning the seeds from the cotton bolls. A slave could hand-clean only a single pound of cotton a day, but Whitney's first gin could clean more than fifty pounds in the same length of time. With the help of James Watt's new steam engine to operate the gin, the process became completely mechanized, and the Industrial Revolution had begun in earnest in America.

This development, however, wasn't all for the good. With this new ability to produce great quantities of the stuff, and the increasing demand from Britain for cheap raw cotton, larger and larger

plantations of the crop were needed to keep up, and so the demand for more black slaves also increased dramatically. It was the improvement in cotton production that actually caused the continuation of slavery in America, until it was finally ended by the American Civil War, which began in 1860.

During this war, Southern cotton exports plummeted, because the Northern navy blockaded all the Southern seaports. The South hoped that Britain's greed for cotton would induce it to recognize the southern Confederacy or even to enter the war on their side—but instead, Britain turned away from the US and turned to Egyptian cotton for its supply.

At the end of the Civil War, in 1865, the American slaves were free men, but cotton production still continued strong under the sharecropper system, where free black farmers worked on white-owned plantations for a share of the profits. And Britain promptly returned to the cheap American market, abandoning Egypt. Now, Egypt had assumed a big national debt in order to quickly develop its cotton production, and it'd been relying on this crop as its chief export. But with its main customer suddenly gone, Egypt drifted into bankruptcy in 1876, and soon after that, it was annexed to the British Empire.

Today, the United States is the world's largest cotton exporter, and most of the world's cotton is from the American variety of the plant. In 2009, the US was the number-one exporter, followed by India, Uzbekistan, Brazil, and Australia. The biggest non-producing importers are Korea, Russia, Taiwan, Japan, and Hong Kong.

On the other hand, the world's biggest producer of cotton is now China, which harvested more than eight million tons of the stuff in 2009. China's followed by India, the US, Pakistan, and Egypt, as the five largest producers. In the case of China and India, though, most of their production is used by their own domestic textile industries, where China churns out all those cotton T-shirts reading 'Made in China' that we wear these days.

1. Which title would probably best fit this lecture?

- (A) The Most Popular Fabric
- (B) Cotton's Place in Society
- (C) The Secret of the British Empire

(D) The Social Impact of a Fibre

2. Which country was NOT an important cotton grower in the 19th century?

- (A) Australia (B) Egypt (C) India (D) USA

3. Eli Whitney invented the cotton gin in which year?

- (A) 1764 (B) 1793 (C) 1810 (D) 1865

4. The early cotton gin could clean how much more cotton a day than a laborer could?

(A) 20 times (B) 30 times (C) 50 times (D) 60 times

5. According to the lecture, which statement is NOT true?

- (A) China produces the most cotton, but the US exports the most.
- (B) Britain was not involved in the American Civil War.
- (C) The cotton gin prolonged slavery in America.
- (D) Britain used to be a big market for Indian textiles.

6. Which fact makes cotton a good choice for a clothing fabric?

- (A) Cotton is 91% cellulose and 8% water.
- (B) 'Cotton' comes from the Arabic 'al qutn'.
- (C) Manchester, England, was nicknamed 'Cottonopolis'.
- (D) Cotton was much more profitable than tobacco and indigo in the US.

# TOEFL Listening Lecture 26

*Listen to part of a university lecture by a professor of*  
**Paleontology.**

Professor: For more than a hundred years after the first dinosaur fossils were dug up, paleontologists just assumed that dinosaurs were cold-blooded animals, like modern lizards and snakes are. Dinosaurs were big, and they were slow, and they were stupid—and none of these characteristics are consistent with small, active, intelligent, warm-blooded animals like birds and mammals.

But in the late 1960s, two young Yale scientists, Robert Bakker and John Ostrum, came out with the hypothesis that dinosaurs were in fact faster, smarter and more energetic organisms than science previously thought. This radical idea caused an immediate stir, and the controversy about dinosaur physiology is still continuing today.

First, here are some of the arguments put forth for warm-bloodness, or endothermism, in dinosaurs. 'Endothermism' means 'inside heat', and an endothermic organism is one that generates heat with its own body in order to counteract a colder environment to keep itself at a constant internal temperature. The arguments for endothermic dinosaurs include:

One- many dinosaurs actually moved pretty quickly- as those of you who have seen Jurassic Park already know- and that would require a high metabolic rate and an internal heater.

Two- the dinosaurs evolved alongside mammals and competed with them for 170 million years, so they must have been competitive with other warm-blooded species.

Three- some dinosaurs had very large bodies and very long necks, so they would need a four-chambered heart and a lot of energy to move their blood those distances.

And four- the structure of dinosaur bone is more similar to bird and mammal bone than it is to typical reptile bone, so they were probably more closely related to the endothermic groups.

Those are some of the arguments that are used to support the idea that dinosaurs were warm-blooded. Of course, none of them prove that these animals were endotherms- they're just theories- but scientists are continuing their research in order to come up with some more solid data. For instance, Doctor Herman Pontzer and his team of British researchers have recently determined that the energy cost of animal movement, of locomotion, is proportional to the length of their legs and to their leg muscle volume. Pontzer first calculated this with 98 percent accuracy in a wide range of living land animals, and then he applied it to dinosaur measurements. He discovered that a dinosaur's energy requirements were simply too high for cold-blooded animals to be able to produce.

But overall, there's still no incontestable evidence for endothermy, and other researchers offer strong arguments for the opposite view- for the old idea of ectothermy in dinosaurs. 'Ectothermy', as you should be able to guess now, is the opposite of 'endothermy'. 'Ectothermy' means 'outside heat', and it's used for organisms like reptiles and insects that rely on their environment or on their behavior to regulate their body heat. They cannot produce heat themselves; they're cold-blooded, but they can lie in the sun to get warmer or hide in shade to cool down.

As evidence that dinosaurs were ectothermic, more traditional paleontologists suggest such ideas as these-

One- dinosaurs were so big that they didn't need to be endotherms; they could've been what's called 'inertial homeotherms'. And now, 'homeothermy' should be easy for you to figure out- it means 'similar heat'. Homeotherms can maintain a relatively constant body temperature with or without producing internal heat. A very large animal, because it has a massive body volume, warms up and cools down very slowly, so that its behavior can keep it at a relatively constant temperature all day and night.

Two- or there's a simpler probability: the climate in the Mesozoic Era, the dinosaur era, was much warmer worldwide than now, so cold temperatures were just not a problem.

Three- another clue is that some dinosaur bones show lines of arrested growth, or LAGs, indicating that they grew seasonally, like trees- as many ectotherms, but not endotherms, do.

And four- all warm-blooded animals today have what are called 'respiratory turbinates', which are folded bones in the nose area used to minimize water loss when they breathe out warm air. But dinosaur fossils don't show these respiratory turbinates.

Well, they are all thoughtful ideas, and so the controversy of warm-blooded dinosaurs versus cold-blooded dinosaurs goes on, with strong supporters on both sides, and with no final solution in sight. It's one of the most interesting problems of evolution, actually. And in fact, the real answer may be something else- some sort of intermediate physiology. Remember that dinosaurs were not reptiles or any other kind of animals that are alive today, so all we have to rely on are fossils in stone. This problem may never be solved. Or maybe one day, one of you will help solve this mystery of dinosaur physiology.

1. What is this lecture mainly about?

- (A) Recent research on dinosaurs
- (B) An insoluble problem about dinosaurs
- (C) An ongoing argument about dinosaurs
- (D) The characteristics of dinosaurs

2. An organism that generates internal heat is called what?

- (A) Ectothermic
- (B) Endothermic
- (C) Homeothermic
- (D) Poikilothermic

3. How has the professor organized his lecture?

(A) By listing opposing viewpoints

(B) By suggesting new theories

(C) By describing dinosaur evolution

(D) By defining physiological terms

4. Who found the energy cost of locomotion?

(A) John Ostrum (B) Charles Darwin (C) Robert Bakker

(D) Herman Pontzer

5. Which fact suggests that dinosaurs were cold-blooded creatures?

(A) Fossil dinosaurs have been found at high elevations (Alaska and Antarctica, for instance).

(B) Dinosaurs were scaly- they were covered with scales, not hair or fur.

(C) Dinosaurs were the direct ancestors of birds.

(D) Theropod and Ornithopod dinosaurs had larger-than-normal brains.

6. Which best expresses the lecturer's probable opinion on the current state of dinosaur research?

- (A) Dinosaurs were most probably cold-blooded animals.
- (B) Dinosaurs had some sort of intermediate physiology.
- (C) Dinosaurs were actually warm-blooded creatures.
- (D) Paleontologists remain divided on this issue.

# TOEFL Listening Lecture 27

*Listen to part of a university lecture by a professor of **History**.*

Professor: You know, sometimes the study of history can be fun, so let's spend a few minutes having some. I'd like make a not-so-scientific comparison of two events-- the naval attacks of the Mongols on Japan in 1274 and 1281, and the naval attack of Spain on England in 1588. These two famous historical events took place three hundred years apart and halfway round the world from each other, and they are quite unrelated, but some of the details of these battles are intriguingly similar, if only by chance.

But first, let's review the two adventures very briefly. Kublai Khan, the grandson of Genghis Khan, in his drive to expand his empire, attempted to invade Japan twice. His first invasion, in 1274, managed to establish a beach head in Kyushu, in southern Japan, but, anticipating Japanese reinforcements, his commanders withdrew their troops to their ships, and this fleet of some 900 ships was caught in strong winds that claimed as many as a third of his forces, the rest returning crippled to the mainland. Kublai Khan's second effort, in 1281- which was composed of two fleets totalling some 3500 ships and 100,000 soldiers- suffered an even worse fate. On July 30th, they were caught up in a two-day typhoon that sank or drove away both fleets.

Three hundred years later, a similar fate awaited King Philip the Second of Spain. In July of 1588, Spain's armada of 125 invading

warships was caught by gale-force winds in the English Channel. They were driven north around Scotland, and then west and south around Ireland. They were harried by the weather and by the English all along the way, and only a few of the ships of Philip's proud armada returned to the Spanish coast.

The best known facet of these battles is that the two aggressors were both defeated by the wind. This was so remarkable at the time that both Japan and England- both of them second- rank island nations threatened by larger and more powerful mainland enemies- both nations memorialized and deified these saving storms. England's Queen Elizabeth had a medallion struck, with the words, "God blew and they were Scattered" engraved on it, and all England believed that the storm had been the work of their Protestant God in defeating Catholic Spain. And Japan preserved its reverence for its typhoon saviour in its myth of the "Kami Kaze", the Divine Wind- and they preserved this myth right down into the twentieth century, when it emboldened Japan's suicidal fighter pilots at the end of World War Two.

Both nations got a lot of help from the wind gods, but they both got some human help, too. First of all, their invaders rushed into battle with more haste than care. Both Kublai Khan and Philip the Second were angry, impetuous leaders. Both had been irritated by the actions of their small island adversaries, and they were over-eager to punish them. And in both cases, the invading forces failed to mount a coordinated attack. Kublai Khan's Eastern and Southern fleets of 1281- one sent from Korea and the other sent from China- didn't arrive together. The smaller Korean fleet arrived first, and without waiting for the Chinese fleet, it rushed to

the attack and was driven off before the Chinese arrived. As the fleets regrouped, the typhoon hit.

In 1588, the Spanish Armada, en route to England, arrived in Holland to pick up its fighting troops, commanded by the Duke of Parma, Philip's nephew. But the Duke was not there yet, and the Armada was blown north before they were able to combine their forces.

The Japanese and the English helped themselves, too, using some similar naval tactics. For instance, when the invading Mongol fleets anchored, the Japanese samurai rowed out in small boats in the dark of night, and set fire to many of the Mongol ships. With the same idea in mind, the English commander, Lord Howard, sent fire ships careening into the anchored Spanish fleet at midnight. Of course, this tactic is common to many early navies, so this should not be a surprising coincidence.

But maybe the most surprising comparison between these two historical events is that they were both also very historic- but in very different ways. Kublai Khan, who was now suffering budget problems because of his disastrous expeditions, gave up his attempt to subdue Japan. And Japan, believing that it was protected by the gods, withdrew from the rest of the world into the security of its home islands- and it maintained this isolationist policy for the next six hundred years, until Japan was finally opened up by US Commander Matthew Perry and his four black ships in 1848.

With the English, however, quite the opposite occurred. The defeat of the "invincible" Spanish Armada turned England from a

second-rate sea power into a first-rate one, and it went on from that success to explore and trade throughout the world and establish the greatest global empire the world has ever known, so that the "sun never set on the British Empire".

Two important events in world history, in some ways so similar, but with such different results- these kinds of studies are what make history so interesting.

1. How has the professor organized his lecture?

- (A) By order of events
- (B) By historical significance
- (C) By increasing similarities
- (D) By points of comparison

2. How did Queen Elizabeth acknowledge the English victory?

- (A) She knighted Lord Howard, the English commander.
- (B) She issued a medal.
- (C) She expanded the British Empire.
- (D) She sent Commodore Perry to Japan.

3. Which of the following is a reasonable assumption from the lecture?

- (A) Asian typhoons occur in the summer.

- (B) Kublai Khan was an inexperienced sailor.
- (C) The Japanese and the English have much in common.
- (D) The Duke of Parma was not interested in invading England.

4. In which year was the largest fleet of ships involved in these events?

- (A) 1274 (B) 1281 (C) 1588 (D) 1848

5. According to the lecture, why didn't Kublai Khan attack Japan again?

- (A) He was wary of the Divine Winds.
- (B) He was angry at his defeats.
- (C) He wanted to isolate Japan.
- (D) He didn't have enough money.

6. Which statement might the professor most likely subscribe to?

- (A) Lord Howard had probably studied Kublai Khan's tactics.
- (B) It is natural that Japan began empire-building in the 20th century.
- (C) The Mongol and Spanish naval invasions have no causal relationship.
- (D) Island nations are often susceptible to attack.

# TOEFL Listening Lecture 28

*Listen to part of a university lecture by a professor of **History**.*

Professor: You know, class, today we live in what's becoming essentially a single, worldwide civilization. There're still a few isolated areas that haven't hooked up to it yet, I guess, but the Africans are driving Toyotas, the Americans love sushi, the Chinese are shopping for Gucci bags, and the young people of Russia and Iran and Peru all wear Levi jeans and listen to rock music.

The greatest impetus for this globalization today is no doubt the internet, but one of the first major drivers of globalization came into being about two thousand years ago. It was the Great Silk Road, which was the oldest, longest, and most historically significant trade route in the world, and it significantly changed the cultures of almost all of continental Eurasia.

The Silk Road wasn't actually a single road, though. It was actually a network of trade routes between China and Italy, and it ran thousands of kilometers through and over and around the Taklimakan and Gobi Deserts, the Himalayas, and the Karakorum and Kunlun mountain ranges, through some of the most inhospitable geography on earth. Travelling across this vast area was difficult, to say the least, and it took centuries for these trade routes to reach completion.

The route from the West apparently began developing earlier. The Persian Empire controlled a large portion of the Middle East-

from Syria to the kingdoms of India- so trade between these nations was already affecting, uh, influencing, their cultures. Then, when Alexander the Great conquered Persia in 330 BC, trade expanded into southern Europe, and Greek culture was extended as far east as what is now Afghanistan. Alexander's empire itself did not actually last very long, but waves of succeeding ruling peoples in this crossroads area brought their cultural elements into the mix, too. In the Gandara culture of northern Pakistan, for instance, Buddhist and Greek art was fused into a unique form, where many of the carved Buddhist idols strongly resemble statues of the Greek hero, Herakles.

The Silk Road developed more slowly from the East. Its first big impetus came during the Han Dynasty in China, whose emperors reigned from about 200 BCE to about 200 AD. China's warring states had just been united, and the Great Wall of China had just been begun. Since they were still troubled by northern barbarians, the Han emperors extended the Wall westward and sent out emissaries even farther west in search of allies. In 125 BC, one of their generals, Zhang Qian, brought back news of previously unknown peoples in the west, and of a new, large breed of horse that would be invaluable for the Han cavalry. The emperor was very interested, and so more expeditions were sent out. The "heavenly horses", as they were called, were obtained, and Chinese trade missions eventually pushed through to Persia, bringing back many wonderful gifts for the emperor. Zhang Qian is considered by many to be the father of the Great Silk Road.

Actually, the Silk Road's name wasn't coined until the nineteenth century, and silk was never its main commodity, though that fabric

must have been very remarkable to Europeans, and it was certainly in demand. The road's most significant commodity was probably religion- primarily Buddhism, but to a lesser extent, Christianity and Islam as well. Buddhism surged east from northern India in the fourth and fifth centuries AD, where it later reached its height of development in China and Japan.

Meanwhile, the secret of silk production - which had been carefully hidden from foreigners- was finally discovered. In the mid-sixth century, the Byzantine emperor, Justinian, quickly sent secret agents to China to bribe silk experts and bring back some silkworm eggs. A Christian monk smuggled these eggs out, and after this time, silk was also produced in southern Europe.

The Silk Road's greatest years of art and civilization came in the seventh century, during the Tang Dynasty. In 754 AD, one of the largest Asian cities, Changan, at the eastern end of the road, boasted a population of more than five thousand foreigners from all over Eurasia. After this time, however, the internal stability of China began dissolving, and robbers and neighboring states increasingly pillaged the Silk Road caravans. Eventually, sea trade and sea travel began to supersede these slow, unsafe land routes.

Nevertheless, five hundred years later, the Silk Road was still viable enough to inspire its greatest chronicler, Marco Polo, whose book, "Book Million", so famously told of his nearly twenty-five years of travel- from 1271 to 1295- along its length, and his travelogue still captivates the reader with the wonders he saw along the Great Silk Road.

1. Which might be the best title for this lecture?

- (A) The Clash of Civilizations
- (B) Commerce and Culture
- (C) The Spread of Religion
- (D) Exploration and Conquest

2. The lecturer uses the Gandara culture as an example of what?

- (A) A desert people
- (B) A conquering culture
- (C) A trading people
- (D) A fusion of cultures

3. Which is NOT true of the Great Silk Road?

- (A) It was not a single road.
- (B) It was not named by Marco Polo.
- (C) It was not used mostly for silk trading.
- (D) It was not important after the 6th century AD.

4. According to the lecture, what is the importance of Alexander the Great?

- (A) He connected Asia to Europe.
- (B) His empire was stable and long-lived.
- (C) His army possessed wonderful horses.
- (D) He was the Father of the Silk Road.

5. Many products were traded along the Silk Road. Which of the following were probably NOT traded?

(A) Iron and ivory

(B) Corn and tobacco

(C) Furs and lacquerware (D) Gold and jade

# TOEFL Listening Lecture 29

*Listen to part of a university lecture on **agriculture**.*

Professor: Good afternoon, class. We've been looking at various of the world's population problems and their possible solutions over our last few classes, and today I'd like us to take a quick look at one of the solutions to the growing problem of supplying enough food for us all. It's called "dry land farming".

Dry land farming is a, a set of agricultural practices, agricultural techniques, that should be, or need to be, used to produce profitable crops in areas where the rainfall- or the snowfall- is slight, is erratic, or is very seasonal, and is generally less than about fifty centimeters a year. All over the world, there are countries that must use these less-than-optimal lands to grow their food- the North American prairies, the South American pampas, the Russian steppes, the Middle East- all these areas have marginal rainfall, precipitation. Almost half of India's arable-cultivable- land, 47 out of a total of 108 million hectares, is dry land, as opposed to land fed by adequate rainfall. Originally, these lands were covered with well-adapted grasses, but today much of the natural cover is gone, and these vast plains are seen as, potentially at least, our global breadbasket.

Now, dry land farming is something that must be practiced in places where the land is inherently only barely suited for food production in the first place, and you can't make a silk purse out

of a sow's ear, but there're a number of things you can do that can improve the situation, the conditions, for successful farming.

Water is of course a key, or the key, requirement, and the little precipitation that does fall must be captured and conserved and used sparingly. Providing windbreaks, and providing some slight shade, and leaving residues from previous crops can often save water, keep it from evaporating so quickly. And weeding can save the water that the weeds would otherwise drink up. If the countryside is hilly, terracing can be used, and this goes along with contour plowing to prevent run-off. In some areas, it may even be feasible to build cisterns so that rainwater can be collected and stored. Also, planting the seeds carefully, with consideration- choosing precisely the right time to plant them, choosing the optimum seed depth, and so forth, can help use the available moisture most efficiently.

Professor: Mentioning seeds brings me to the next point: crop choice. Drought-resistant varieties, heat-tolerant varieties, of wheat or corn, for instance, must be chosen or developed. Varieties that can stand hot, dry conditions, whose seeds will germinate in such adverse conditions, and which have growth cycles, life cycles, that are fitted to the conditions they must face. With careful attention to these choices and to these practices we are talking about here, even crops like watermelons have been grown successfully in dry lands!

So, conserving and carefully distributing what rainfall is available and choosing crops that can best tolerate dry conditions are key factors for success. And the soil itself is also a key factor.

Dry land soils are, as you might expect, relatively poor in nutrients, because dry conditions allow a lot of topsoil to be blown away. So the quality of the thin topsoils must be preserved and maintained as carefully as possible. The most obvious help here is fertilizers, but other techniques like mulching- putting a protective cover over the field, like old vegetable matter, plant stalks and leaves, for instance, or plastic sheeting- and minimal tillage, minimal plowing, help solve this problem of soil deterioration, as well as the other main soil problem, erosion. Erosion can also be fought with windbreaks and strip-farming, which is the planting of alternate strips of land each growing season.

As I said before, dry lands by their nature are not very good, relatively speaking, for growing our food, and part of that is that they are more susceptible to low crop yields or complete crop failures. This is something that dry land farmers must always keep in mind and must always plan for, be ready to deal with.

If the year turns ugly, if it is even dryer and colder or hotter than usual, the farmer must be ready and willing to abandon his effort for that year, and in that way to save his fertilizers and his seeds and his energies. On the other hand, in promising years, where the weather is boding fair, the farmer should be quick to take advantage of it- by boosting yields with extra or broader plantings, by extending his growing cycle, and so on- and of course by working longer and harder at it.

With such approaches as these- and others we develop- the productivity of such marginal dry lands may be able to help us keep up with our irresistibly growing populations. We can at least

take hope in the thought that the natives of the arid American southwest- the Hopi, the Zuni, the Navajo- survived for hundreds of years on dryland farming, in an area with a rainfall of less than twenty-five centimeters a year!

1. How has the professor organized his lecture?

(A) By geographical regions (B) By seasonal changes

(C) By agricultural zones (D) By key elements

2. The professor mentions watermelons as an example of what?

(A) A typical dry land product (B) A drought-resistant seed

(C) An unusual success (D) An inappropriate crop choice

3. According to the lecture, which is NOT true of dry land agriculture?

(A) It is a collection of methods.

(B) It is practiced in half of Russia's arable lands.

(C) It requires a water source.

(D) It suffers erratic productivity.

4. The severity of the Dust Bowl storms of the 1930s in the south-central US were evidence of which dry land characteristic?

- (A) Excessive evaporation (B) Excessive erosion
- (C) Inadequate precipitation (D) Marginal productivity

5. Nature has produced thousands of species of edible plants. Which of the following plants would probably NOT be feasible for dry land farming?

- (A) Plants with short life cycles
- (B) Plants with spreading or deep root systems (C) Plants that store water in their tissues
- (D) Plants with large, spreading leaves

# TOEFL Listening Lecture 30

*Listen to part of a university arts lecture on **Greek drama**.*

Professor: This morning I'd like to look briefly at Classical Greek drama, because its influence has lasted for over two thousand years, and it remains the source, the origin, for much of the form and style of our modern Western stage and film dramas.

Classical Greek drama, at its height of achievement in Athens- during what is called the "Golden Age of Pericles"- in the fifth century BC, was very formal, very stylized. It used scenery very sparsely, and with its masks and buskins, it might remind you of Japanese Noh or maybe The Lion King.

Student: Excuse me, professor, but what are buskins?

Professor: Oh. Uh, buskins are very high-soled boots- almost like short stilts- that were worn to increase the actor's height, his presence, and make him look more impressive. The main characters wore them.

Anyway, although the Greek drama as we know it is very formal, it actually developed from rather wild and woolly religious celebrations and rites in honour of Dionysus, who was an agricultural, a harvest, god, the god of grapes and wine. Ancient grape harvests and wine- making naturally led to celebrations or festivals of plenty- a lot of eating and drinking, dancing and singing- as well as rituals to thank Dionysus for his bounty. In

Greek mythology, Dionysus was surrounded by frolicsome wenches and lusty satyrs- a satyr is a sort of rustic half-goat and half-man, like Pan- and in fact, the Greek "odi tragon", meaning "goat song"- the drunken singing of the satyrs in praise of Dionysus- is the origin of our word "tragedy".

Tragedy and comedy were both a part of the more mature cultural festivals that evolved from these revelries and goat songs, but the tragedies in particular- like those by Athens' three immortal playwrights, Aeschylus, Sophocles and Euripides- became the centerpieces of the later Dionysia, the Dionysian Festivals of Periclean Athens. For this three-day festival, three playwrights were chosen to write and produce three tragedies- oh, and plus a short comic interlude called a satyr play- a piece. Then each author would have his four plays performed on a single day of the festival. The themes, the stories, of the three tragedies were often interrelated, like the Oresteia of Aeschylus, and we refer to these sets of plays as a "trilogy"- though only the Oresteia still exists in its entirety.

These tragic dramas were quite sophisticated in concept, but they were still not very "dramatic" as we think of that word. They had, at the very most, only three speaking roles. Much of their presentation was narrative that was sung or recited by one or more choruses- groups of men who spoke together as one voice or antiphonally (that is, reciting back and forth in alternation). The chorus would add background information, it would comment on or explain what was going on, or it would foretell future events in the story. So we would probably find these performances very stilted, not very exciting, and certainly unrealistic by modern

standards. Since all the story lines came from Greek legends and myths, they were already well known to their audiences, and these performances continued to serve a religious function, as a reconfirmation of traditional beliefs, and as a force for social cohesion, social unity.

The origin of this drama is again obvious from the way it was staged. The playing area, the stage that the actors performed on, was not much more than a glorified altar. At first, it was just a raised platform with a simple architectural facade behind it. As the art developed, entrance ways and exit ways were gradually added, and then scenery like "periaktoi"- moveable screens-, cranes for introducing the "deus ex machina", and wheeled platforms appeared. So that eventually the stages began to look more like our own modern proscenium stages.

The theatres were large- great semicircular amphitheatres that could seat the whole community. The theatre at Epidauros could hold 14,000 spectators. With three tragedies and a satyr play to sit through, it was a rather drawn-out affair- in fact, the show ran from dawn to dusk. The whole neighborhood came out to worship and be entertained and socialize, so we can well imagine a lot of chatting and picnicking going on while the plays were being performed. There may even have been snack vendors walking the aisles!

These performances were actually competitions, with prizes awarded to the playwright whose drama earned the greatest applause from the crowds. The name of the winner of the first competition- in 534 BC- is actually known. His name was Thespis,

which is where we get the word "thespian" for someone who is a serious actor. And the "choregos", the financier who bankrolled the winning play, was permitted to erect a "choregic monument" commemorating his achievement. Several of these monuments still exist. One of them, which was erected by Nikias in 392 BC, is now a part of the Beule Gate, a Roman gate built in 267 AD by recycling various older structures. It's the entrance to the Acropolis.

1. What best describes the nature of this lecture?

- (A) The source of Greek drama (B) An overview of Greek drama  
(C) The functions of Greek drama (D) The legacy of Greek drama

2. To which entertainment does the lecturer NOT relate Greek drama?

- (A) The Lion King  
(B) modern movies (C) Noh theatre (D) Community theatre

3. The lecturer uses the theatre at Epidaurus as an example of what?

- (A) A large theatre (B) An early theatre  
(C) An advanced theatre (D) A simple theatre

4. Which is NOT a characteristic of classic Greek drama?

- (A) It was very formal. (B) It was very popular.  
(C) It was very complicated. (D) It was very traditional.

5. Why does the lecturer mention the Oresteia?

- (A) It is a tragedy. (B) It is a satyr play.  
(C) It is an amphitheatre. (D) It is a trilogy.

6. What does the word "thespian" mean?

- (A) Financier (B) Playright (C) Actor (D) Goat song

# TOEFL Listening Lecture 31

*Listen to part of a lecture from a **social science** class.*

Prof: Show of hands. How many of you drink coffee? Mm-hm, that looks about right. So do I. (sound of professor sipping from a cup, smacking lips). Ahh. According to those who know more than I, about eight of every 10 Americans drink coffee each morning, and the typical American will have three cups of it per day. (drinking sound again). I'm not typical (laughter). But it isn't just Americans who need their daily caffeine fix. Those same people in the know estimate that more than a third of all the people in the world drink coffee, which makes it the number-one processed beverage on the planet. Sorry, Coke!

We do, most drink coffee for the stimulation provided by caffeine. Do any of you know what caffeine is. Yes?

S: It's a kind of drug, isn't it? Like nicotine?

Prof: Yes, it's a mild natural stimulant, a type of alkaloid. Like most drugs, it's beneficial in small amounts. It's been shown to help, to improve coordination and increase concentration. Also like most drugs, in large amounts it's harmful, and several studies suggest it could contribute to serious ailments such as cancer and heart disease. (sound of drinking). Oh no, my chest! Ow! Ha ha, just kidding. Seriously, though, would you drink coffee because of the taste alone? One cup contains about 100 milligrams of caffeine,

which is twice as much as a cup of tea and three times as much as a cup of cola. Now...yes, question?

S: How large is a cup?

P: Good question. Um, six ounces. Now, because of its popularity, coffee has become one of the world's most important commodities. For example, between 1998 and 2000, a total of 6.7 million tons of coffee was produced each year, and experts -- those guys in the know -- forecast that production will rise above 7 million tons annually by 2010. Coffee is the world's fifth-, no, make that sixth-largest agricultural export in terms of value. Though people in Europe and the United States drink 85% of all exported coffee, it is becoming increasingly popular in traditional tea-drinking Asian cultures such as China and Japan. Japan, in fact, has become the world's [pause] let's see, seventh-largest retail market for coffee, as well as its third-largest importer. And in China, the Starbucks has opened almost 450 shops since first entering the country in 1998. So, coffee clearly plays an important role on today's world stage. (sound of drinking, lip smacking) Ahhh.

How did coffee become so popular? Well, it really always has been. The first coffee beans are rumored to have been discovered by a goat herder in ninth century Ethiopia. The story is that this goat herder discovered his goat eating these strange berries from a strange plant. The herder tried the berries, probably got buzzed out of his mind, and ran back to his village to spread the news of his exciting discovery. People enjoyed the new beans so much, they would later literally steal for a good cup of coffee, as we shall

see. From Ethiopia, coffee beans spread to the rest of the world via Arabia and Europe, often through, er, subterfuge. Muslims introduced coffee in Persia, Egypt, northern Africa, and Turkey, where the first coffeehouse, Kiva Han, opened in 1475.

Seeds of the coffee plant were apparently limited to Africa and Arabia until the 1600s. A Muslim smuggler supposedly sneaked coffee seeds into Turkey, spreading coffee throughout Europe by the mid-seventeenth century. In 1616, Dutch traders brought the first coffee plant into Europe, and twenty years later they founded a coffee plantation on the island of Java, in present-day Indonesia. A navy officer reportedly stole a sprout from the coffee tree of the king of France, and took it across the Atlantic Ocean to replant in Latin America. By the 1800s, coffee trees had spread to Brazil, where its mountains and fertile volcanic soil soon made it the coffee-growing capital of the world. Today about half the world's coffee is produced in Brazil. Another 25% comes from other Latin American countries, and about 17% from Africa. There are currently twenty-five different kinds of coffee trees, but two main species - coffee robusta and coffee arabica - produce most of the global supply. The robusta beans are generally grown in lower altitudes on commercial plantations, where the berries are harvested all at once, ripe or not. Arabica beans typically grow on wild plants in higher altitudes, and they're used to make premium coffee. Arabica coffees seem red, and have about 1% caffeine, while robusta coffees are usually black or dark brown, and have about 2% caffeine.

1. Why does the professor explain the history of coffee?

- (A) To illustrate its historic popularity
- (B) To demonstrate why Americans like it
- (C) To complement an assigned reading
- (D) To detail the composition of caffeine

2. What is caffeine?

- (A) A type of coffee bean
- (B) An artificial flavoring
- (C) An alkaloid stimulant
- (D) A prescription drug

3. According to the professor, all of the following are true about coffee EXCEPT

- (A) It was initially discovered in Ethiopia.
- (B) It is the number-two processed beverage in the world.
- (C) It is drunk today mostly in Europe and America.
- (D) It is grown today primarily in Latin America.

4. What can be inferred about the professor?

- (A) He prefers Arabica coffees to robusta coffees.
- (B) He is a follower of the Muslim religion.
- (C) He does not worry that caffeine will harm his health.

(D) He is usually ill-prepared for his lectures.

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: Good question. Um, six ounces. Now, because of its popularity, coffee has become one of the world's most important commodities. For example, between 1998 and 2000, a total of 6.7 million tons of coffee was produced each year, and experts -- those guys in the know -- forecast that production will rise above 7 million tons annually by 2010.

5. What is the professor imply when he says this: "those guys in the know"?

- (A) Expert opinion should always be sought.
- (B) He knows more than so-called "experts."
- (C) Men are more trustworthy than women.
- (D) He doubts the credibility of statistical forecasts.

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: Seeds of the coffee plant were apparently limited to Africa and Arabia until the 1600s. A Muslim smuggler supposedly sneaked coffee seeds into Turkey, spreading coffee throughout Europe by the mid-seventeenth century.

6. What does the professor mean when he says this: "A Muslim smuggler supposedly sneaked coffee seeds into Turkey, spreading coffee throughout Europe by the mid- seventeenth century"?

(A) Coffee seeds were illegally transported.

(B) The account of the story is unverified.

(C) A Muslim first spread coffee to Europe.

(D) The incident is historically inaccurate.

# TOEFL Listening Lecture 32

*Listen to part of a lecture from a **physical science** class.*

Prof: The Little Ice Age, or L-I-A for short, was a period of climatic and social upheaval in the northern hemisphere that brought severe winters and bad, er, unpredictable weather to many parts of the world, particularly Northern Europe. People [false start] scientists disagree on the LIA's precise beginning and ending dates, but unusual weather has been documented from the early 1300s to the mid-1800s, and it made significant impacts on agriculture, economics, um, health, and, uh, politics, and produced weather phenomena that have not been experienced since. London's Thames River in London froze twice, for example, in 1607 and 1814, and in 1780 the entire New York harbor became frozen. People could actually walk from Staten Island to Manhattan!

The weather changes began about, oh, 1250, when icepacks in the North Atlantic Ocean and glaciers in Greenland began spreading south. In 1300, summers in Northern Europe began growing colder, and in 1315, three years of steady rains led to a European famine. Then, about 1550, glaciers throughout the world began to grow, er, expand, and in 16 - uh, 1650, the worldwide temperature dropped to a record low. This was the first of three times it would do so between then and 1850, which is generally considered the end of the LIA. What caused these dramatic climate changes? Scientists aren't sure. But during the

LIA time period they have noted significantly decreased sunspot activity and an increased number of volcanic eruptions. Volcanoes emit ash that blocks sun radiation and can cool subsequent worldwide temperatures for as long as two years. A good example is the 1815 eruption of a volcano in Indonesia. The following year, 1816 is still called "the year without a summer."

OK. So whatever the cause, the cold winters and damp summers seriously hindered agricultural production in Northern Europe, as one might expect. At the coldest points of the LIA, the growing season in England was shortened by one to two months. Now, at that time this had a profound impact, because growers lacked the...they lacked the versatile seeds we have today, which can withstand harsher weather. We have some evidence that before the LIA, England rivaled France for wine production. But the, uh, plummeting temperatures of the 1400s inhibited the growth of grapes, which eventually wiped out vineyards in the British Isles. During the LIA farms in the extreme northern countries, such as, um, Switzerland and Norway, remained buried in snow well into spring, which affected not only crops but also starved the livestock that fed off of hay. In France, a failed crop harvest in 17 -- I'm sorry, 1693 -- resulted in a famine that killed millions of people. This was the second famine attributed to the LIA. Economically, the events sparked by the LIA, such as storms, glacier growth, and famines, destroyed farms and depleted fisheries. This in turn led to decreased tax revenues. It even affected one of the wealthiest men in the world -- the Archbishop of Salzburg. When glaciers expanded in the Austrian Alps, they buried his gold mines. Ah, poor soul!

So. Although the agricultural and economic consequences of the LIA were severe indeed, its most dire impact was on human health. It completely wiped out one entire Northern European group during the 1400s -- the Greenland Vikings -- because they couldn't grow enough food to survive. The population of Iceland was halved, perhaps due to disease caused by a volcanic eruption there in 1783. The suddenly damp summers caused grain to develop a fungus called ergot blight. This produced a disease, -- called Saint Anthony's Fire -- that caused convulsions, gangrene, and even death. Um, in addition, general malnutrition during the LIA weakened people's immune systems, leaving them vulnerable to a variety of diseases, including the Bubonic Plague that killed about 25 million Europeans in the mid- 1300s, as well as outbreaks of influenza and, uh, malaria in England, where the death rate was greater than birth rate for most of the 1550s.

Can you imagine that? People were dying faster than they were being born, the skies were likely dark, food was scarce. It must have seemed like the end of the world. So, it might not be surprising that those who survived the worsening climate of the LIA became more and more desperate, and began to demonstrate in a series of public outbursts. Residents of the Scottish highlands raided lowland cattle, killing King James I in 1436 while the king hunted at the boundary of the Highland region. In the bitterly cold winter of 1709, which killed lots of people in France, citizens in many cities rioted to pre [false start] to stop merchants from selling off the precious remaining little wheat that they had. Some historians attribute one of the world's most famous quotations partially to the effects of the LIA. In 17

eighty [pause] eight, yeah 1788, northern France suffered a severe winter followed by an unusually hot summer and a July hailstorm, which shriveled up the grain. This led to demonstrations -- riots, in fact -- the following year due to lack of bread. And it was during these riots that Queen Marie Antoinette allegedly said, "Let them eat cake," the words that helped precipitate the French Revolution.

Prof: Well, at any rate, in the mid-1800s -- 1850, as we've said -- the climate in the Northern Hemisphere began warming again, and it's been getting steadily hotter to this day. New evidence suggests that the Little Ice Age, whatever year it began, ended abruptly, perhaps within as few as 10 years. In its place comes a new concern: climate changes caused by global warming.

1. What is the lecture mainly about?

- (A) The debate over the dates of the Little Ice Age
- (B) The climatic and social changes caused by the LIA
- (C) The effect of diseases attributed to the LIA
- (D) The famines of the 1300s and 1600s

2. According to the professor, what area did the LIA have the greatest impact upon?

- (A) Agricultural production
- (B) Economic consequences
- (C) Urban migration
- (D) Human health

3. Why does the professor mention New York Harbor?

- (A) To exemplify the LIA's impact on human health
- (B) To exemplify the LIA's impact on agricultural production
- (C) To exemplify the LIA's impact on global climate
- (D) To exemplify the LIA's impact on world politics

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: Economically, the events sparked by the LIA, such as storms, glacier growth, and famines, destroyed farms and depleted fisheries. This in turn led to decreased tax revenues. It even affected one of the wealthiest men in the world -- the Archbishop of Salzburg. When glaciers expanded in the Austrian Alps, they buried his gold mines. Ah, poor soul!

4. What does the professor imply when he says this: "Ah, poor soul"!

- (A) He emphasizes with the Archbishop of Salzburg.
- (B) He does not feel sorry for the Archbishop of Salzburg.
- (C) He wishes that he earned a higher salary.
- (D) He thinks it's unfair to pay taxes to the government.

5. What can be inferred about the French people who rioted in the 1700s?

- (A) They were starving.
- (B) They were suffering from the Bubonic Plague.

- (C) They loved Queen Mary Antoinette.
- (D) They lacked warm clothing.

6. What is true of the Little Ice Age?

- (A) Its exact duration is unknown.
- (B) It affected the southern hemisphere.
- (C) It ended gradually.
- (D) It halted global commerce.

# TOEFL Listening Lecture 33

*Listen to part of a lecture from a **history** class.*

Prof: Benjamin Franklin was a renowned statesman, a successful proprietor, an avid philosopher, and a prolific scien [false start] uh, inventor. As we learned from our reading this week, his inventions include bifocals, the Franklin stove, the odometer, and, of course, the lightening rod.

Today, though, I want to argue the case that Franklin's greatest legacy was not in any of those roles, or as a founding father of the United States, but as a writer. Do any of you know a book that Franklin has written? Anyone? Well, that's because Franklin wrote, er, didn't write any great novels, a la later US greats like Hemingway, F. Scott Fitzgerald, and Mark Twain. Ahem. But I think an analysis of Franklin's writing style, his instincts, his sensibilities and his accomplishments reveals that he deserves to be mentioned in the same breath as those literary giants.

Like Hemingway, Franklin began as a newspaper reporter, then moved on to publish essays, journals and books. His most famous books are Autobiography, Way to Wealth and Poor Richard's Almanack, an annual publication that he founded and authored from 1732 to 1748. Franklin's first literary contributions were essays printed in 1722 in the New England Courant, a newspaper published by his brother James. Ben's writing style at this time was modeled principally upon that of The Spectator, a British

paper edited by Joseph Addison and Richard Steele. Early on, though, Franklin displayed an innate ability to write concise, clear news stories. In 1729, he became publisher and editor of The Pennsylvania Gazette, which he developed into a newspaper universally acclaimed as the best in the American colonies.

Franklin made three great contributions to American literature. First was his preference to share his opinion about popular topics, instead of simply reporting on current events -- um, much in the vein of a modern newspaper columnist. Through his writings, Franklin helped shape America's national identity, by shifting Americans' consciousness from a spiritual Puritanism to, uh, secular rationalism, which was characteristic of eighteenth century enlightenment. He thus created a percep [false start] uh, a dawning awareness that America was a country with distinctly different values and interests than those of England. Poor Richard's Almanack and his Autobiography, for example, are written in the style of self-help guides. They're packed with enlightenment maxims such as "an investment in knowledge pays the best interest," "time is money," and "hear reason, or she'll make you feel her." Franklin imbued his journalism with a similar tone. In an article entitled "Death of a Drunk," for instance, he used a true story to pass on a moral lesson about the dangers of drinking. Author Robert Arner said that Franklin's writings "demonstrate a," um, "deep and abiding belief in the power of the press to educate the public on topical issues."

Prof: Franklin's second contribution was his sense for unusual and interesting news stories, which set a tone that has carried over to modern newspapers. The Pennsylvania Gazette specialized in

brief, offbeat articles, such as a husband who tried to decapitate his wife's adulterer, and a fiddler who saved his fiddle -- but not his wife -- from a capsized canoe. Although some criticized this as sensationalistic, or "yellow" journalism, Franklin's venerable wisdom and natural wit permeated the short reports and attracted a huge and loyal audience. Ahem. In this sense, we might call Franklin the father of tabloid journalism. So you can thank Ben next time you're in a supermarket checkout line and see the headline: "Michael Jackson spotted on UFO." [laughter]

Prof: Franklin's third significant contribution to US literature is his writing style, which reflects the philosophy he expressed in a 1732 essay. Good writing, he said, should be quote smooth, clear and short. Compared with other eighteenth century authors, Franklin's writing is much more concise and readable. That comparison holds not only among his contemporaries, however, but also among writers in the following three centuries. Franklin played a leading role in developing journalism as a terse writing form, getting quickly to the point and dwelling on important issues instead of secondary facts. Moreover, Franklin was a word economist, finding the shortest way to express a thought, as demonstrated by his vast coinages of aphorisms. The chief reason Franklin's sayings remain popular today is due not to their moral wisdom but to their brevity. Advice such as, "Well done is better than well said;" "when in doubt, don't" dispense moral certitudes in sentences that are catchy and easy to remember - a timeless writing tip. How many of you have heard your English teacher mention K-I-S-S? What does that mean?

S: Keep it short and simple.

P: Yep. Keep it short and simple. That was a formula Ben Franklin was practicing long before someone coined a name for it. Given all this, it's no wonder that Scottish philosopher David Hume called Franklin, "America's first great man of letters."

1. What aspect of Ben Franklin's life does the speaker mainly discuss?

- (A) His role as a founding father (B) His career as a prolific inventor  
(C) His literary accomplishments (D) His newspaper editorship

2. According to the professor, what resulted from Franklin's sense for unusual news stories?

- (A) Reality TV shows (B) Tabloid newspapers (C) Self-help guides  
(D) The K-I-S-S formula

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: Benjamin Franklin was a renowned statesman, a successful proprietor, an avid philosopher, and a prolific scien [false start] uh, inventor. As we learned from our reading this week, his inventions include bifocals, the Franklin stove, the odometer, and, of course, the lightening rod.

3. What does the professor mean when he says this: "...and, of course, the lightening rod"?

- (A) He assumes that most students know this fact.
- (B) He is surprised that Franklin invented the lightning rod.
- (C) He thinks it is Franklin's least important invention.
- (D) He thinks someone else really invented this.

4. Why does the professor mention K-I-S-S?

- (A) To point out one of Ben Franklin's faults.
- (B) To highlight a point about Franklin's marriage.
- (C) To explain one of Franklin's aphorisms.
- (D) To exemplify Franklin's writing prescience.

5. What can be inferred about the professor?

- (A) He thinks Franklin's writing is overrated.
- (B) He is a fan of well-written literature.
- (C) He did not read Poor Richard's Almanack.
- (D) He wrote a book about Ben Franklin.

6. Which of the following is mentioned in the lecture as one of Franklin's contributions to American literature?

- (A) His verbosity
- (B) His fiction writing
- (C) His frequent opining
- (D) His conservative sensibilities

# TOEFL Listening Lecture 34

*Listen to part of a university lecture on **Animal Behavior** by a professor of Biology.*

Professor: We're looking at animal behaviour this week, and let's turn now, class, to one of its most dramatic manifestations- animal mimicry. Organisms that are good to eat, or that are attacked for other reasons, often develop devices- through evolution, of course- techniques and devices to protect themselves from their attackers, in order to survive, and in order to reproduce and pass their genes on to the next generation. And one of these techniques, one of these strategies, is to look like something else, to look like something that is not good to eat, or something that is otherwise of no interest to the predator. An organism that does this, that resembles something else, is called a 'mimic', and the thing that it has evolved to resemble is called the 'model', while the predator that it is trying to mislead is called the 'recipient'- the one that receives the misleading image.

Some mimics do this by adopting camouflage, which is a cryptic resemblance to something of no interest to its enemy, and by doing this, they become invisible, they are hidden. Many animals- insects, lizards, amphibians- mimic the abundant plant life in the habitat around them. I'm sure that you've seen green grasshoppers and brown moths that seem to be well- hidden on grass stems and tree trunks when they're motionless. But the Leaf-tailed Gecko, a small lizard in Madagascar, is a master at this. It

avoids its enemies by looking exactly like a cluster of old dead leaves. And there are various species of katydids, grasshopper-like insects, that have managed to duplicate the appearance of leaves with startling accuracy, in all stages of growth, some species looking like fresh green leaves and others looking like old decaying leaves- complete with leaf veins, weathered edges and mildew spots! These adaptations make these animals difficult or impossible for a predator to identify or even notice, and so these otherwise defenseless creatures are overlooked or passed by.

Other organisms defend themselves directly with stings or bites, or with poisons or other noxious chemicals, and such organisms often assume bold, characteristic colors and markings- called warning coloration- that warns a predator, reminds it, that this creature can inflict pain or discomfort, or that it tastes very bad. The bold orange-and-black pattern of the common Monarch Butterfly, or the black-and-yellow bands on a bumblebee, are such warning colorations.

And sometimes, this warning coloration is so effective that another species, a species that doesn't have any of the protective devices of sting or poison or whatever, will adopt the same warning colors and pattern. This sort of mimicry is called 'Batesian mimicry'. The name comes from the early zoologist, HW Bates, who, back in 1862, first suggested an explanation for the origins of mimicry based on Charles Darwin's new Theory of Natural Selection. This was one of the earliest applications of Darwin's ideas to an unknown biological phenomenon.

Now, Viceroy Butterflies taste good to many birds, but because they mimic the Monarch Butterfly model's color pattern, because Viceroy Butterflies look like Monarch Butterflies, they are avoided, just like the Monarch is. In the same way, many harmless fly species resemble the bumblebee model, and also in this way they avoid being eaten by the recipients, birds.

So these are Batesian mimics. There are several conditions that must be fulfilled, though, for a Batesian mimic to be successful- the mimic must of course share the same general region and habitat as its model, but the mimic must also be less numerous than its model, which must be relatively abundant. That way, the odds are that the recipient predator will sample an unpalatable model first, which is very important for keeping the trick effective.

A similar kind of mimicry is 'Müllerian mimicry'- named after another early biologist- and in this sort of mimicry, both the model and the mimic are dangerous or taste bad. A very obvious example is the way that so many unrelated species of bees, wasps, and ants have assumed similar, bold, black-and-yellow or black-and-orange banded patterns. By doing this, Müllerian mimics present a united image that predators soon learn to be wary of.

There's also another aspect of mimicry that I'd like to mention, too, and that's the mimicry used by predators. This is called 'aggressive mimicry', and it is used to conceal or misrepresent a predator until its prey comes near enough to capture. Many mantids, for example, are green or brown, so that they blend in

with their plant surroundings, but some tropical mantids are fantastically shaped and colored, like the beautiful Orchid Mantis, which resembles a petal of one of those tropical flowers, and it hides motionless next to one of these orchids until an insect comes within its reach. There're also several green-colored vine and grass snakes of various families, which lie invisible among the tangled vines and branches of the jungle until they suddenly lash out to grab their prey.

Actually, there are an endless number of ingenious mimics in the natural world, and I recommend that you all try a Google Images search tonight for some more interesting examples of this fascinating behaviour.

1. Why does the lecturer mention Charles Darwin?

- (A) Darwin was the creator of evolutionary theory.
- (B) Darwin's theory was used to explain mimicry.
- (C) Darwin explained mimicry for the first time.
- (D) Darwin separated Batesian and Müllerian mimicry.

2. What is the term used for an organism that is fooled by mimicry?

- (A) The recipient
- (B) The model
- (C) The device
- (D) The prey

3. Why does the lecturer mention katydids?

- (A) Because they taste bad
- (B) Because they resemble bumblebees
- (C) Because they can sting
- (D) Because they look like leaves

4. Some moths and butterflies have large, owl-like eyespots concealed on their underwings, which they can suddenly display to a predator. Which kind of mimicry is this an example of?

- (A) Batesian mimicry
- (B) Camouflage
- (C) Müllerian mimicry
- (D) Aggressive mimicry

5. Which organism is presented as an example of Müllerian mimicry?

- (A) The Viceroy Butterfly
- (B) The Orchid Mantis
- (C) The Monarch Butterfly
- (D) The Leaf-tailed Gecko

6. Which would be the best title for this lecture?

- (A) Animal Behavior
- (B) Animal Creativity
- (C) Animal Deception
- (D) Animal Escapades

# TOEFL Listening Lecture 35

*Listen to part of a university lecture on **American social history**.*

Professor: Before we examine the modern American entertainment industry- Broadway shows, Hollywood movies, rock concerts, television, and all that- let's take a short look at the beginnings of organized entertainment in America.

Almost since the very beginning of the country, Americans had been able to enjoy itinerant performances of one kind or another, shows that travelled around to find their audiences, in towns and villages across the continent. Travelling medicine shows, offering jugglers and music along with their snake oil and miracle tonics, were popular. Then there were Buffalo Bill Cody's 'Wild West Shows', with trick riders and dramatic re-enactments, which toured the country, as did several circuses like Barnum and Bailey's. And there were the showboats- paddle-wheelers carried music and comedy up and down our river systems, up and down the Mississippi River and the Missouri River, and the Ohio River. Meanwhile, town halls, saloons and music halls, dime museums and burlesque houses, all sprang up across the country, wherever people had some money to burn and were looking for a little fun.

But then, after the Civil War, after 1865, America's social structure began to change, change radically. The country began to grow economically, and its cities began to grow, and an American middle class began to develop, with increased spending power and leisure time. This was also a time of industrial growth, and

transportation and communication technologies improved rapidly. Businesses became large and national in scope.

And it was at this same time that entertainment became an industry- with the appearance of Vaudeville. Vaudeville was something new- the first mass entertainment, in that it no longer catered just to the gullible or to those looking for the risqué. From its inception, it was geared toward middle-class men and women and families and it very quickly spread nationwide. Its performance halls were alcohol-free and its hall managers demanded decorum- no spitting on the floor or jeering the acts- and its performers were denied the use of bawdy material. Vaudeville was the first family entertainment.

Theatre historians usually date Vaudeville's beginning at October 24th, 1881, when a former circus ringmaster, Tony Pastor, first offered 'polite' variety programs in his New York City theatres. Pastor hoped to draw his audiences from the uptown shopping traffic, from the salaried workers and their wives and children. He barred alcohol sales and risqué material from his theatres, and he offered luxurious facilities, and he gave out door prizes like hams and coal to his patrons- and his idea proved so successful that other theatre managers soon followed suit. Incredibly, by the 1890s, Vaudeville has already developed into regional and national chains of theatres, with sophisticated booking and contract systems.

Professor: At its height, Vaudeville performed before a broad range of theatre sizes and economic classes- the so-called 'small time', and 'medium time', and 'big time'. And it was the 'big time'

that all of its entertainers hoped to rise to: the Big Time, with its palatial urban theatres and its salaries of several thousand dollars a week!

An act could be just about anything that was entertaining and inoffensive- escape artists like the great Houdini, high divers, contortionists, hypnotists, tap dancers, trained animals, every imaginable kind of novelty act. And of course, there were the headliners, the singers and dancers and comedians whose popularity drew the customers. Some of their careers outlasted Vaudeville. WC Fields, Will Rogers, Al Jolsen, Kate Smith, Eddie Cantor, George Burns, Jack Benny- these names you may not recognize now, but they were some of the greatest Vaudevillians, who went on as far as the early years of movies and then television, and set the performance standards in those media as well, who set many of the performance styles we still enjoy today.

At the beginning of the twentieth century, in 1902, the new medium of the motion picture, an early silent movie, was first incorporated into a Vaudeville bill between the live acts. Thirty years later, on November 16th, 1932, New York's Palace Theatre- the capital of Vaudeville- offered its first exclusively cinematic presentation, and this is considered Vaudeville's official end- the point in time where movies overtook live performances in the hearts of American audiences. For Vaudeville itself, it was a relatively brief stardom- only about fifty years from start to finish- but actually, the spirit of Vaudeville lived on. Its performers moved into the movies or onto Broadway, and then many of these stars moved on to television. And we'll be looking at these media next.

1. What is this lecture about?

- (A) The first organized performances in America
- (B) The first itinerant performances in America
- (C) The first educational performances in America
- (D) The first professional performances in America

2. The professor cites the 'Wild West Shows' as?

- (A) The source of Vaudeville
- (B) A competitor of Vaudeville
- (C) A type of Vaudeville
- (D) A precursor of Vaudeville

3. According to the lecturer, how did Tony Pastor attract his audiences?

- (A) With bawdy material
- (B) With free gifts
- (C) With famous performers
- (D) With early movies

4. Judging from the lecture, what is a "headliner"?

- (A) A big-time theatre
- (B) A novelty act
- (C) A popular performer
- (D) A theatre chain

5. In October of which year did Vaudeville officially appear?

- (A) 1865
- (B) 1881
- (C) 1890
- (D) 1902

6. Judging from the lecture, which of the following would probably NOT have contributed to the development of Vaudeville?

- (A) Urbanization
- (B) Industrialization
- (C) Technology
- (D) Territorial expansion

# TOEFL Listening Lecture 36

*Listen to part of a university lecture by a professor of **Physics**.*

Professor: My next topic I'm sure will interest all of you- I want to talk to you now about Black Holes. Simply speaking, a black hole is what's left after a large star dies. You're already aware that a star is an energy producer, a nuclear fusion reactor- its core is a gigantic nuclear fusion bomb that's trying to explode- but its mass of surrounding gases is so large that its gravity contains the explosion, and the balance that exists between the gravity and the fusion is what determines the star's size.

Professor: However, as a star gets older, as it ages, its fuels gets used up and its nuclear reactor slows down. And then, its gravity gets the upper hand. The star implodes. Gravity pulls inward and compresses the stellar material into the star's center. As it's compressed, the core heats up tremendously- and then, at some point, a supernova, a great explosion, occurs, and the stellar material and a lot of radiation are blasted out into space. Only the extremely dense, extremely massive core is left. Its gravitational field is so strong that nothing can escape it, not even light. So it disappears from view: it's black. It's now a black hole.

Now, the idea of a 'black hole'- an object with so much gravity that it won't let light escape- was first proposed more than two hundred years ago, in 1795, by a French mathematician, Pierre LaPlace. He used Newton's gravitational theory to calculate that if an object was compressed small enough, it would require an

escape velocity of almost 300,000 kilometers per second- the speed of light. More recently, the name of Stephen Hawking, the great British physicist, has become synonymous with black hole theory.

A black hole consists of two parts, a 'singularity' and an 'event horizon'. Its 'singularity' is the point where its gravity is infinitely strong and its mass is infinitely dense, and this point is theoretically at the center of the black hole's core. And its 'event horizon' is the perimeter around the core at the distance where its gravity is still strong enough to pull light into itself- at the distance where escape velocity equals the speed of light, and where nothing can escape its pull. Both the singularity and the event horizon are intangible, of course, but both of them can be calculated mathematically. The distance of the event horizon from the core is called the 'Schwartzchild radius', and this radius is equal to "two GM divided by C squared", where G is Newton's gravitational constant, M equals the mass of the core, and C equals the speed of light.

Even though we can't see them, black holes do exist, and we can prove their existence in three basic ways. One way is to search for celestial objects that are very small but that have a very large mass. For example, the astronomical feature called 'M87' is only about the size of our solar system, but it weighs three billion times more than our Sun. So it's a good bet that M87 is a black hole.

Another way to find a black hole is to search for matter that's accelerating, because a black hole accelerates anything that approaches it. As the matter gets sucked in, it speeds up and it

heats up, and this superheated matter produces X-rays, which can be detected. The star Cygnus X-1 is a strong X-ray source, so there's a good possibility that there's a black hole in its neighborhood.

And finally, a black hole can be detected using Einstein's Theory of Relativity, which tells us that gravity can actually bend space, warp space. An object with a lot of gravity located between Earth and a more distant star can bend that star's light like a lens or a prism does. This is called the gravitational lens effect. In 1996, a gravitational lens passed between Earth and MACHO-96-BL5, and the temporarily brightened image was photographed by both the Hubble Space Telescope and ground observers.

'Black holes' are a bit frightening, but if the idea of a black hole sucking in the rest of the Universe upsets you, let's put them into perspective. A black hole doesn't suck in everything in sight- it only affects nearby material. If a black hole with the same mass suddenly replaced our Sun, then its Schwartzchild radius would be only three kilometers, compared to our Sun's radius of 700,000 kilometers! And since Earth is 150 million kilometers from the Sun, it would be in no danger of being sucked in. Without the Sun, though, Earth would be very cold and lifeless, I'm afraid!

1. Which would be the best title for this lecture?

- (A) Astronomical Phenomena
- (B) The Dangerous Black Holes
- (C) A Unique Feature of the Universe
- (D) The Discovery of Black Holes

2. Judging from this lecture, which statement is true?

- (A) Black holes are relatively large objects.
- (B) Black holes produce X-rays.
- (C) Black holes produce energy.
- (D) Black Holes are relatively heavy objects.

3. Karl Schwartzchild's work led to the discovery of black holes. According to the lecture, how has he been commemorated?

- (A) One dimension of a black hole carries his name.
- (B) Stephen Hawking credited him with the discovery.
- (C) He calculated the position of the event horizon.
- (D) There is a monument to him in LaPlace, France.

4. An astronomer discovers a new celestial object. Which characteristic(s) suggests that there could be a black hole nearby?

- (A) The object is very bright.
- (B) The object is moving faster and faster.

(C) Both A and B (D) Neither A nor B

5. Why does the professor mention Cygnus X-1?

(A) It produces X-rays.

(B) It is probably a black hole.

(C) It has an immense mass.

(D) Its light is bent by a black hole.

6. According to the professor, why should we not be worried about a black hole?

(A) Black holes are still theoretical.

(B) The Earth is safe from them for a while.

(C) Our Sun will not develop into a black hole.

(D) There are no black holes nearby.

# TOEFL Listening Lecture 37

Listen to part of a university lecture in the **Social Sciences Department**.

Professor: As a part of our study of the effects of diseases on society, of the, uh, social consequences of man's diseases, we should certainly include yellow fever. Now, yellow fever's a deadly disease that's caused by a virus, and it's been the source of many epidemics since at least the eighteenth century in Africa, Europe, and the Americas. In fact, it still kills more than thirty thousand people a year worldwide. And there's still no cure for the disease. However, there is a vaccine to immunize us against it. The road to the discovery of that vaccine was a rocky one, I think.

It's called 'yellow' fever because one of its symptoms is jaundice- a yellowish colour that the skin takes on, because of liver damage. It's transmitted by mosquitoes, either from man to man- this's called the 'urban' cycle- or from monkey to man- this's called the 'sylvatic' or 'jungle' cycle. The disease probably originated in west Africa, and it was carried from there to the West Indies and the New World in the eighteenth century with the ships of the slave trade. The first big outbreak of yellow fever happened in Cuba in 1762 and 1763, and it killed thousands of American and British colonial troops there. After that, between then and 1900, it killed about ten percent of Cuba's population.

The next big epidemic hit in the heart of the United States, in Philadelphia, Pennsylvania, in 1793. It killed five thousand people there, while twenty thousand more fled the city in panic. These included President George Washington, Thomas Jefferson, Alexander Hamilton, Dolly Madison, and most of the federal government officials. Because you might remember that Philadelphia was the capital of the United States then. Washington, DC was still under construction, and it would not be a working seat of government until 1800.

About twenty years after the Philadelphia epidemic, another significant yellow fever epidemic hit Haiti. In 1802, Napoleon Bonaparte had sent an expedition of 40,000 soldiers there with the intention of using the island as a base for invading the United States, by way of New Orleans. New Orleans was at that time still in the hands of France. But Napoleon's army- including its commander, who was Napoleon's brother-in-law- was completely decimated by the fever, and his invasion plans were abandoned.

Later in the same century, in the 1880s, France was again foiled, and history was again changed, by yellow fever. The French effort to build the Panama Canal ended in failure as a result of the heavy toll on the workers and technicians, from both yellow fever and malaria.

These epidemics continued to occur over and over because no one had been able to figure out how the disease was transmitted, how it was carried from person to person. In Philadelphia, Benjamin Rush- who was a signer of the Declaration of Independence and also the chief medical officer for the new

government- Doctor Rush relied so heavily on blood- letting as a treatment that he probably killed more people than he cured. The most widespread theory was that yellow fever spread through contaminated water or by direct physical contact with infected people, and some people actually abandoned family members in their panic.

The idea that mosquitos were the disease vector, the method of transmission, had been proposed in 1881, by a Cuban scientist named Carlos Finlay, but he hadn't been able to prove this to the satisfaction of other scientists. It wasn't until twenty years later, in 1900, that Carlos Finlay's idea was finally proved.

The United States Army had occupied Cuba after the Spanish American War of 1898, and since Cuba was still considered to be the breeding ground for yellow fever in the New World, the US government commissioned a US Army surgeon, Doctor Walter Reed, to solve the problem before its occupation forces also succumbed to this disease. And Doctor Reed's team did soon prove that the mosquitoes were the culprits, at their research center just outside Havana.

As a result, yellow fever was quickly eliminated from Cuba, and the US Public Health Service started a mosquito control program that included fumigation, eliminating or treating standing pools and bodies of water, and so forth. In addition, the Panama Canal was completed by the Americans- who then controlled the canal's operation for the next 99 years.

And Walter Reed- well, Walter Reed's name should be familiar to many of you. The Walter Reed Army Medical Center in

Washington, DC is the well-known hospital where the President, US congressmen, and US military personnel receive medical treatment.

1. Which would be the best title for this lecture?

- (A) The Progress of Yellow Fever (B) Deadly Diseases of the World  
(C) The Yellow Fever Mystery (D) Disease and History

2. Why is the disease named 'yellow' fever?

- (A) People were very afraid of it.  
(B) It originated in west Asia.  
(C) It is transmitted by the yellow mosquito.  
(D) Its victims turn yellow.

3. Why is Carlos Finlay significant?

- (A) He discovered the cause of the disease.  
(B) He eradicated the disease in Cuba.  
(C) He saved many patients in Philadelphia.  
(D) He collaborated with Walter Reed.

4. Judging from the text, what does 'sylvatic' mean?

- (A) city (B) forest (C) countryside (D) ancient

5. Which is NOT mentioned as an example of the effect of yellow fever on current events?

- (A) The potential French invasion of America
- (B) The moving of the US capital from Philadelphia to Washington, DC.
- (C) The French attempt to build the Panama Canal.
- (D) None of the above.

6. Which of the following WOULD NOT be a good method of containing yellow fever?

- (A) Isolating patients
- (B) Draining swamps and marshes
- (C) Placing insect netting over beds
- (D) Spraying insecticide around homes

# TOEFL Listening Lecture 38

Listen to part of a university lecture in **Political Science**

Professor: Now, we're all familiar, I think, with the United Nations organization, and we're very accustomed to a world divided into nations- but many of you may not realize how recent the idea of the 'nation-state' really is. Most of the history of civilization's been a history of much smaller units- from primitive tribes to Greek city-states- and later of the much larger units usually called 'empires'. The concept of a political and cultural 'nation', as we know it today, didn't appear until near the end of the 18th century, at the time of the French and American revolutions.

Let's look at a couple of terms first, just to make them clear. Strictly speaking, a 'nation' is a cultural concept- a group of people in a particular area who are usually defined as sharing a common history, common traditions, the same language or ethnic origin, et cetera. A 'state', on the other hand, is a political concept- it's a political unit, an administrative unit, a territory controlled by a government. So, what we're talking about here, 'nation-states', what we often call 'countries', are those areas where these two concepts, 'nation' and 'state', are roughly congruent, where they coincide in time and space. And this's the basic structure, the infrastructure of civilization, of the world we see, today- the basis upon which treaties are signed, on which wars are fought, and for which people often die.

One historian has said that a nation-state is an 'imaginary community', because the citizens of even the smallest nation-state will never meet all their fellow citizens, or even hear about them- yet in each citizen's mind is some image of 'oneness', of unity with his fellows. Some think that this image is the direct result of the development of printing and the popular press- which likewise expanded in the 18th century- and which, in its language and its audience, has helped define these national communities.

Well, imagined or not, nation-states are very real to us today. In fact, they seem like the only natural form for society- in spite of their very recent origins- don't they? But at the same time, they seem to be the cause of so much turmoil in our world- wars, nuclear standoffs, ideological conflicts, conflicts over resources and markets...the list seems endless! So maybe we'd better take a more careful look at the factors that seem to contribute to the idea of 'nation-statehood'.

First, geography is an obvious factor. Countries like Japan and New Zealand have very clear boundaries, and their physical isolation makes these nations very homogeneous. However, geography is often irrelevant- Ireland and Cyprus are certainly very strongly divided islands. And many countries, notably African countries, have boundaries that have nothing to do with natural features or ethnicity or anything else. They are simply straight lines drawn in the last century by former colonial powers.

And then there's language, which is also used as a rationale for nationhood. The United States and Germany and France are all large, successful states that're defined mostly by language. But on

one hand, many international boundaries cut directly across language lines, as with Belgium and The Netherlands- while on the other hand, countries like South Africa and India include speakers of many different languages.

And a common ethnicity- that is, a common genetic background and a common cultural heritage- have certainly helped determine the identity of many nation-states. Nevertheless, many larger countries, like China, are composed of many ethnicities- while other ethnic groups, like the Kurds, for instance, are conspicuously stateless.

Finally one more major determinant is religion. Religion has also played a big part in defining nations- Catholic Ireland. Buddhist Nepal. And of course, Jewish Israel. But again, many states suffer internal strife, violent conflict, on account of religious differences- Iraq being the most obvious current example.

So it should be clear to you that none of these factors are foolproof definers of the nation- state. In fact, they as often complicate the situation. Would it then be reasonable, therefore, if we divided Iraq, for instance, into three nations, into Sunni and Shi'ite and Kurdish nations? Would that solve many of their problems?

Probably not. Drawing lines usually just creates new problems. Minorities become smaller minorities. Surrounding states endure altered confrontations. The fracturing of other states is encouraged. And re-drawing a state's boundaries wrongly suggests that conflicts- ethnic and religious and linguistic conflicts- can be decided by dividing peoples, when the real

solution probably lies in trying to unite them, lies in recognizing individual rights, in devolving power to the local level, and in a sort of 'pan-nationalism' that focuses on maximizing cooperation among nation-states and in that way minimizing the impact of hard boundaries poorly defined by any factor. This what is happening so successfully with the European Union, the organization which we'll be taking a closer look at now.

1. What is this lecture mainly about?

- (A) The differences between nations
- (B) The history of nationhood
- (C) The definitions of a nation
- (D) The future of nationhood

2. According to the lecture, which is NOT a difference between 'nation' and 'state'?

- (A) A nation is a cultural entity, while a state is a political entity.
- (B) Only a state has a government.
- (C) A nation, but not a state, is a distinct group of people.
- (D) A nation does not share a common history.

3. Which characteristic of Ireland does the professor utilize in his lecture?

- (A) It is part of the UK.

- (B) It is a distinct island.
- (C) It is conspicuously religious.
- (D) It has a common ethnicity.

4. Judging from his lecture, which idea would the professor probably NOT accept?

- (A) China should be divided into several countries.
- (B) Rivers are common determiners of statehood.
- (C) Nation-states are a recent phenomenon.
- (D) State boundaries often ignore national history.

5. The lecturer uses the Kurds as an example of what?

- (A) A stateless nation. (B) A nationless state.
- (C) A people united by ethnicity.
- (D) A people divided by ethnicity.

6. Which statement probably reflects the professor's general view of dividing nation-states?

- (A) It should be done much more often.
- (B) It should be avoided.
- (C) It should be considered on a case-by-case basis.
- (D) It is wrong-headed.

# TOEFL Listening Lecture 39

Listen to part of a university lecture by a Drama professor.

Professor: In our overview of world theatrical traditions, I'd like to try to give you now a general idea of the nature of the Noh theatre of Japan. Noh is a difficult art to categorize, really- it could be described, I guess, as a sort of stylized, symbolic drama which is rooted in, based on, song and dance, and which was formalized some six hundred years ago. Even the Japanese admit that only a few of them can now understand the language used in Noh dialogs- or, rather, monologues, since most Noh plays have only one main character, along with a very secondary character and a chorus. The main actor wears one of the very distinctive character masks that some of you may have seen illustrated. The pleasure of watching a Noh play is in enjoying the quiet, elegant visual and auditory beauty of the performance- a concept encapsulated in the Japanese term 'yugen', which means something like 'profound, elusive beauty'. Noh sounds very 'zen', doesn't it?

The dramas are played on a single, square platform with a single painted pine tree on the background- a holdover from when the plays were presented outdoors. The audience sits at the front and on one side of the stage, and on the other side is a covered ramp- also part of the acting area- that leads offstage. This ramp symbolizes the transition between the real world and the spiritual world. One interesting feature of most Noh stages is the large earthenware jars that are placed under them. These large jars are

set at an angle with their mouths upward. Because the sounds on the stage resonate in the jars below, they increase the acoustic effects of the performance.

The history of Noh is well documented. 'Sangaku', a whole troupe of entertainment arts- acrobatics, magic, song-and-dance, juggling, et cetera- arrived from China in the eighth century. They were often performed at shrines and festivals, and became very popular with the common people.

At the same time, a more solemn Japanese native art called 'dengaku' was being performed at the great Buddhist temples. Dengaku had developed from harvest rituals and ceremonies, and was performed by incantation masters. It was supported by the nobility, and it also enjoyed great popularity.

These two independent, very different, kinds of performances were brought together in the fourteenth century- during Japan's Muromachi Period- by a father and son, Kan'ami and Ze'ami, two great theatrical geniuses. They were directors, actors, playwrights and theoreticians, and from elements of sangaku and dengaku, they created 'nogaku', a refined, elegant new theatrical art- in much the same form as we see it today. This was the great period of creativity and imaginative growth in Noh. Incredibly, some of Ze'ami's notebooks still remain in existence- it's like having Chaucer's or Shakespeare's personal notes still available to us!

One of Ze'ami's early performances caught the eye of the shogun Ashikaga Yoshimitsu, and the shogun gave them his enthusiastic support. This patronage continued through the next two shoguns and into the Momoyama Period and the shogunates of the great

Oda Nobunaga, Toyotomi Hideyoshi, and Tokugawa Ieyasu. These powerful men were such Noh enthusiasts that they pretty much took over its administration. They consolidated the acting troupes, standardized the operations, and established a set program of five plays to be performed in a single day.

There are now a repertory of about 200 Noh plays, and there are two basic kinds- Genzai Noh, realistic Noh- and Mugen Noh, fantasy Noh. In realistic Noh, the main character is a real person, and the acting occurs in real time. The usual theme is the depicting of the main character's inner feelings in a dramatic situation.

In Mugen Noh, on the other hand, in fantasy Noh, the main character is supernatural- a demon, a god, a ghost, or something like that. The themes come mostly from classical literature. The most popular mugen is "Lady Aoi". Her story comes from the eleventh century novel, *The Tale of Genji*. In it, the ghost of Lady Rokujo, the rejected lover of Prince Genji, possesses his wife, Lady Aoi. A Buddhist exorcist drives the ghost out in the shape of a horned demon, and they fight a battle for power. It is a typical Noh- a highly stylized integration of dance, song, poetry and percussion. The percussion is provided by the four- piece orchestra of flute and drums. The spoken words are elongated in a complex, structured chant. A single instant can go on for several minutes, or a lengthy stretch of time can be over in an instant. The main actor can expend so much energy in his subtle portrayal of intense emotion that his heart rate can reach 180 beats a minute, even while he is standing still.

Noh is difficult to perform and difficult to understand, but it is well worth your effort to try to appreciate this unique dramatic art if you ever get a chance.

1. What is this lecture mainly about?

- (A) The theatre of Japan
- (B) Japanese patronage of the arts
- (C) The development of a dramatic form
- (D) The two kinds of Noh

2. Which does the professor NOT indicate as an intimation of the difficulty of Noh theatre?

- (A) The incomprehensibility of the dialogue
- (B) The physical strain on the actor
- (C) The length of the performances
- (D) The Chinese origination of the form

3. Why does the professor mention the large jars?

- (A) They improve the theatre's sound.
- (B) They serve as part of the scenery.
- (C) They function as musical instruments in the orchestra.
- (D) They are a safety feature in case of fire.

4. Why did the professor probably choose "Lady Aoi" as an example?

- (A) It is relatively modern. (B) It is very popular.  
(C) It is a realistic Noh play. (D) It is the first Noh Play.

5. Which is NOT true of the history of Noh?

- (A) It was created in the 14th century.  
(B) Its roots came from abroad.  
(C) It was created by specific artists.  
(D) It was derived from court dramas.

6. In 2001, UNESCO included Noh in its Intangible Cultural Heritage List. Which is probably NOT a good reason for this decision?

- (A) Noh is over 600 years old.  
(B) Noh is unique to Japan.  
(C) Noh combines music, dance and drama.  
(D) Noh was standardized by the Ashikaga and Tokugawa shoguns.

# TOEFL Listening Lecture 40

Listen to part of a university lecture by a professor on the possibility of life on Mars.

Professor: The planet Mars has been in the news recently, because it is going to pass very close to us soon. So this might be a good time to talk about the Red Planet.

The possibility of there being life on Mars has been a topic of speculation for more than a hundred and fifty years- ever since its "canals" were mapped by an Italian astronomer, Giovanni Schiaparelli, back in 1877. He drew the first reasonably realistic map of Mars, and it included a system of "canali" across its surface. In Italian, "canali" just means "channels"- it doesn't imply artificial structures at all- but the idea caught on, and it was gradually developed, with a lot of help from fertile imaginations, into the concept of a complex, planet- wide irrigation system. Although most serious astronomers did not buy into this, the idea of an Earth-like planet- perhaps colder and dryer, and probably without any Martians- endured right up to the beginning of the Space Age, when Mars was still thought to have polar ice caps and a reasonable atmosphere. It also showed seasonal color changes that some thought could be some kind of primitive plant life blooming.

But in the 1960s, NASA's Mariner missions sent back images of something very different, of a cratered, moon-like Mars. Both the polar caps and the atmosphere turned out to be almost pure

CO<sub>2</sub>, and the density of its atmosphere was only one-hundredth of Earth's. And the "blooming plant life" turned out to be only a lot of dust, blown around by strong seasonal winds.

In some ways, though, Mars became more interesting. It had giant volcanos. It had a vast maze of canyons. And it showed evidence of having had flowing water on its surface sometime in its distant past.

And the possibility of living organisms on Mars could still not be ruled out. Now, you should realize that it is a lot easier to prove that something exists than it is to prove that something doesn't exist. Once you've discovered something, you've got it in the bag- but it's harder to prove that something's not there, because no matter how much you look without finding it, it could still be hiding under the next rock. So scientists continue to look under the Martian rocks.

The Viking mission in 1976 included three biological experiments- the Labelled Release experiment, the Pyrolytic Release experiment, and the Gas Exchange experiment.

The Labelled Release experiment mixed a Martian soil sample with water and Carbon-14 marked organic materials, and if any micro-organisms ate the materials, Carbon-14 would appear in any released gases. The Pyrolytic Release experiment simply incubated an unadulterated soil sample in a simulated Martian atmosphere containing Carbon-14 marked CO<sub>2</sub>. Then the sample was heated to break down- or pyrolytize- any organic material that'd been produced, and again the gases were tested for Carbon-14. And finally, the Gas Exchange experiment put a

Martian soil sample into an organic "chicken soup" of marked chemicals, and if any of these were consumed by micro-organisms, the Carbon-14 would again be detected in the released gases.

None of these experiments were successful. That is, none of them produced clear results detecting life forms. Most scientists now agree that the experiments were flawed- all of the results can be explained as purely chemical processes that do not require the presence of life. However, there is now evidence, as I said, that Mars once had significantly more water, and now scientists are considering the possibility that the planet once has life- but that it went extinct when conditions on Mars got worse.

A meteorite called ALH84001- catchy name, eh?- was discovered in Antarctica in 1984, and it is one of a dozen meteorites that scientists believe, because of their age and composition, came from Mars. But ALH84001 is special- it carries with it three pieces of evidence for life on Mars. First, it carries polycyclic aromatic hydrocarbons, which is something that dead organisms often decompose into. And second, it has tiny carbonate globules that resemble mineral alterations that primitive Earth bacteria cause. And then third, it carries very tiny- 10- to 100-nanometer- ovoids that may actually be fossil bacteria. And all three of these pieces of evidence lie within a few micrometers of each other in a crack in the meteorite's surface. Together they are strong evidence for the existence of life in Mars's past.

But the real research on this is just beginning. Maybe we'll learn more when we've heard back from NASA's Phoenix mission.

1. What are "canali"?

- (A) canyons (B) canals
- (C) carbonates (D) channels

2. What is this lecture mainly about?

- (A) Exploring life on Mars
- (B) Proving there's life on Mars
- (C) Testing for life on Mars
- (D) Disproving there's any life on Mars

3. Judging from the lecture, how would you describe the results of the Viking biological experiments?

- (A) Inconclusive (B) Exciting
- (C) Inaccurate (D) Too complex

4. Which is NOT true of meteorite ALH84001?

- (A) It was discovered by Schiaparelli.
- (B) It fell in Antarctica.
- (C) It has the composition of Mars.
- (D) It contains evidence for micro-organisms.

5. What are scientists now focussing their research on?

- (A) Meteorites
- (B) Better experiments
- (C) Extinct life
- (D) Polycyclic aromatic hydrocarbons

6. According to the lecture, why is it difficult to disprove the existence of life on Mars?

- (A) Test results are always ambiguous.
- (B) Scientists can never completely agree.
- (C) The climate of Mars is always changing.
- (D) Definitive research is always incomplete.

# TOEFL Listening Lecture 41

Listen to part of a university lecture by a professor in the College of Fine Arts.

Professor: Good morning, everyone. Today, I want to start with a look at perspective, visual perspective. First, we'll look briefly at the kinds of perspective, and then we'll look very quickly at its history in art. Just in case you don't know what we're discussing- perspective in art is the way that artists represent three-dimensional objects on the two dimensions of their canvas.

There are two basic sorts of visual perspective- aerial perspective and linear perspective. Aerial perspective- and 'aerial' just means 'air' or 'atmospheric', not your view from an airplane!- aerial perspective is the way that the atmosphere affects how we see things, especially distant things. I won't try to go into the laws of physics that are involved here, but it is aerial perspective that makes a mountain in the distance appear to be a different color, that makes it seem hazier- less distinct- than closer objects. These are effects that realistic artists attempt to reproduce carefully, and that impressionists use to create their own effects. Just think of many of Turner's landscapes- or cityscapes like his "Dido Building Carthage"- to get an idea of how the air can affect what we see.

The other perspective, linear perspective, is the way that things seem to get smaller the farther away they get. A classic example of this is the way we perceive railroad tracks or a line of telephone poles running away from us. They seem to get smaller and smaller

as they recede- until they vanish in a point on the horizon- and this point is appropriately called 'the vanishing point'. This effect happens whenever there are parallel lines, like the two train tracks, or the tops and bottoms of the telephone poles.

Now, an object or a scene may have more than one vanishing point. A cube with one of its faces squarely perpendicular to us has a single vanishing point, directly behind it and on the horizon. But a cube with one of its vertical edges facing us has two vanishing points instead- one for the right-hand face and one for the left-hand face, and these points are off to the right and left respectively, on the horizon, where the parallel lines of the faces seem to converge. And then, if this same cube is viewed from somewhat above or below, it will have three vanishing points- one to the right, one to the left, and a third one behind it and below or above the horizon. This is easy to visualize if you look up at a corner building from its street intersection. You can look down one street to see the right-hand vanishing point, look down the cross-street to see the left-hand vanishing point, and then look up along the corner of the building to visualize the third vanishing point.

These kinds of perspective are easy to see if we view geometrical shapes or manmade structures, but of course natural scenes don't have any sets of parallel lines, so they have no vanishing points- but that doesn't mean that they don't exhibit perspective.

The laws of optics were not understood at all in early Western art. Artists recognized the effect, of course, but they were unable to figure out how to represent it accurately. From the paintings

inside the Egyptian pyramids to the illustrations in medieval Christian churches, nearer people were simply drawn larger, or drawn lower in the picture, or drawn so as to cover the people farther away. There was no real understanding of how the physics of perception worked- they never got a grasp on the idea of the vanishing point.

And then came the Renaissance, the rebirth of learning and the sciences. This was a hotbed of scientific thought- da Vinci, Galileo, Newton... and Filippo Brunelleschi. Brunelleschi was a fifteenth century Florentine architect who conducted several optical experiments and discovered the rules of perspective. With what he'd learned, he drew a very accurate picture of San Giovanni Bapistry in Florence, and then he made a small peep hole in the middle of it. He carried it into the street and amazed all his acquaintances by having them look through the peep hole from the back of his picture- first, at a mirror which reflected the image into the viewer's line of sight. Then, Brunelleschi would quickly withdraw the mirror- leaving the viewer peeping at the real Bapistry, whose perspective had been replicated perfectly!

Other Italian artists, notably Donatello, began using Brunelleschi's methods for accurate linear perspective and his ideas soon spread throughout Europe. The development of effective aerial perspective, on the other hand, was developed by the Flemish and Dutch masters of this same period, and can be seen at its best in works like Jan van Eyck's "The Virgin of Chancellor Rolin". But that's another story.

1. What is this lecture mainly about?

- (A) An interesting observation
- (B) An optical effect
- (C) An artistic viewpoint
- (D) An historical evolution

2. Which is a characteristic of realistic landscape paintings?

- (A) They have many vanishing points.
- (B) They appear unclear from a distance.
- (C) They show atmospheric effects.
- (D) They appeared in the Renaissance.

3. Why does the professor mention Turner's painting, "Dido Building Cathay"?

- (A) As an example of aerial perspective
- (B) As an example of a single vanishing point
- (C) As an example of linear perspective
- (D) As an example of multiple vanishing points

4. According to the professor, why was the Renaissance conducive to art?

- (A) It created an atmosphere of scientific curiosity.
- (B) It opened the Classics to European thought.

(C) It debunked earlier theories of perspective.

(D) It permitted the Dutch Masters to develop linear perspective.

5. "Foreshortening" is a way of representing an object so that it conveys the illusion of depth, and its success often depends upon a point of view in which the sizes of near and far parts of a object contrast greatly. Foreshortening is an instance of what?

(A) Aerial perspective

(B) Brunelleschi's demonstration

(C) Multiple vanishing points

(D) Linear perspective

# TOEFL Listening Lecture 42

*Listen to part of a university science lecture on **Island Biogeography**.*

Professor: Today I'd like to look at the topic of island biogeography- the study of plant and animal distributions on islands. Studies in this field ballooned soon after the publication of MacArthur and Wilson's seminal Theory of Island Biogeography in 1967.

Their theory is a simple, elegant bit of reasoning that was a major breakthrough in modern ecological thought. The Theory of Equilibrium in Island Biogeography says that the number of kinds of plants and animals on an undisturbed island- that is, a natural island unaffected by man or other calamity- is determined by two processes, immigration and extinction. In other words, the number of species on an island is the sum of the species that arrive, breed and live there successfully, minus the number of species that arrive but fail to breed or that eventually become extinct.

If a new island starting with zero kinds of birds lies near a mainland that has 100 kinds of birds, then a certain percent of those mainland species are eventually going to find their way to the island. When the first species arrives and establishes itself, the potential number of immigrants decreases by one, since there are now only 99 potential immigrant species available from the

mainland. At the same time, the potential for extinctions increases by one, because with the arrival of the first species, there is now also one species that could become extinct, where at first there was none.

You may have heard of Krakatoa, which was famously all but destroyed by a volcanic explosion, exterminating every living thing on it, back in 1883. Well, between 1883 and 1933, 34 species of birds became established there, but 5 of them also became extinct. Then, from 1933 to 1985, 14 more species established themselves, while 8 went extinct. As the theory predicts, the rate of immigration declines as the island avifauna matures. As equilibrium approaches, turnover continues, but the total number of different species levels off. When the overall bird population finally reaches a mature equilibrium- when the arrival rate of new species balances the extinction rate of unsuccessful species- the island may host anywhere from only a few to almost all of those 100 mainland species, depending on the island's overall receptivity.

Papua New Guinea has a very rich avifauna- almost 800 species of birds- while nearby Bali only has about 300 species. Why? There are several factors that determine these numbers, and we now need to consider them.

The most obvious factor is island size. Papua New Guinea is over fifty times the area of Bali. There's just more space available on a bigger island, so there's more food, more places to hide, bigger territories- simply speaking, room for more birds. And the more individuals of a species there are, the bigger the gene pool, the

greater the breeding opportunities, and the less danger of extinction.

But size alone is not the whole story. Just as important is the variety of habitats. A larger island is likely to have more different habitats- forest, grassland, scrub, lakes, marshes- while a small island may offer only a single habitat of sand and palm trees. Islands with multiple habitats, multiple niches, can maintain more species. With just one or two habitats available, the species list is going to be very short.

This can be seen by comparing islands that are otherwise the same size- as between coral atolls and volcanic islands, for instance. The Tuamotos Islands and the islands of Tonga both lie in the middle of the south Pacific. Both comprise many small islands with a total land area of about 800 square kilometers, but while the Tuamotos are all coral atolls with a maximum altitude of seven meters, Tonga also includes a couple of volcanic islands, one rising to 1033 meters, offering montane habitat in addition to lowlands. As we'd expect, the bird variety on Tonga- 75 species- is somewhat higher than the 57 species on the Tuamotos.

Another important factor is the island's distance from the mainland or other species sources. Its colonists will have to come from whatever lands are nearby- and oceanic islands, islands farther away from these sources, will receive fewer species- though hardier ones- than will coastal islands closer to species sources, simply because it's harder, even for a bird, to get to a more distant location. This is why the Hawaiian Islands, ten times the area of the Louisiade Archipelago, has fewer native birds. The

Louisiades lie only 200 km from species- rich New Guinea, while the Hawaiian Islands are 3,000 km from anywhere.

So these are the main determinants of island species capacity- size, habitat diversity, and degree of isolation. And it turns out that MacArthur and Wilson's theory can be applied to other sorts of "islands", to other geographical areas that are isolated in some way by their surroundings. Just as an island is separated from other land by the ocean, lakes are isolated from other lakes by dry land, so that fish have as great a challenge in colonizing lakes as, say, rodents do in colonizing islands. Mountain tops are islands, separated from other mountain tops by ecologically quite different plains and valleys. And national parks are islands of original habitat isolated by the human developments around them.

Today, such areas as national parks, forest preserves and other protected natural areas are increasingly becoming isolated fragments in a clipped and cultivated world. And it with these that lessons learned from the studies of island biogeography are being applied. In our western parks, for instance, the successful re-introduction and management of large mammals like the wolf and birds like the California condor depend on research into territorial demands and ecological requirements, crucial population sizes, and individual emigration to surrounding areas, where the impact on humans can be significant.

1. What is this lecture mainly about?

- (A) How islands develop and mature
- (B) How species migrate to islands
- (C) How islands vary in species diversity
- (D) How many species islands can accommodate

2. Which of these is most likely NOT an island in the broader sense?

- (A) A pond (B) A city park (C) An oasis (D) A valley

3. Why does the Louisiade Archipelago host more bird species than the Hawaiian Islands?

- (A) It is closer to New Guinea
- (B) It is composed of coral atolls
- (C) It is larger in area
- (D) It is more natural and undisturbed

4. Why does the lecturer introduce Krakatoa?

- (A) As an example of a new island
- (B) As a proof of MacArthur and Wilson's theory
- (C) As a representative of a mature island
- (D) As an exception to MacArthur and Wilson's theory

5. Which is NOT a significant determinant of island species density?

- (A) Surface area
- (B) Recent geology
- (C) Habitat variety
- (D) Proximity to other islands

6. Why does the lecturer mention other concepts of "island"?

- (A) To show practical uses for MacArthur and Wilson's theory
- (B) To demonstrate MacArthur and Wilson's insight
- (C) To suggest more fields of research
- (D) To augment the basic theory

# TOEFL Listening Lecture 43

*Listen to part of a lecture from a **social studies** class.*

Prof: Students today learn how to use computers as early as age 5 or 6. They are also spending more time online, surfing the web, e-mailing, twittering, playing games, using Face Book, etc. Rumor has it some even use the Internet to research term papers [laughter]. The question I'd like us to consider is, are people spending too much time on their computers? Many, er, some doctors believe that people can misuse the Internet, the same way people drink too much or gamble too much. They call this problem Internet Addiction Disorder, or IAD for short..

The doctors have identified seven signs of Internet Addiction Disorder. The number...first sign is that a person wants more and more time on the Internet. One hour is not enough; it's got to be two or three. The second sign relates to what happens to people if they cannot get on the Internet. They might, um, dream about the Internet. During these dreams their bodies might tremble, and their fingers might move as if they were typing. The third sign is that they need to use the Internet to stop these things from happening to their bodies. In the same way that a few drinks will steady an alcoholic, being on the Internet actually improves the way their bodies feel. Fourth, people with IAD use the Internet more often and stay on line longer than they intended. For example, they might go online to check e-mail, but three or four

hours later, they are still there, chatting or surfing the web, or whatever. Fifth, people spend a large amount of time doing things related to the Internet. They might, oh, read books about the Internet, for instance, or download new Internet programs, or attend Internet-related conferences. The sixth sign of IAD is that people substitute online time for social activities. Frankly, they prefer communicating electronically rather than face-to-face. The seventh and last sign is that Internet use becomes more important than almost anything else -- showering, schoolwork, losing a job, feeding children, even eating yourself. They will also lie about how much time they are spending online, and they will keep using the Internet even if they are punished for it.

Any of this sound familiar? well, if so, don't panic. Some doctors discount the notion of IAD. They claim that IAD is not equal [false start] is not the same as drug addiction, because the Internet is a useful tool for getting information, and also a multi-faceted tool for communication. In other words, um, there is so much to do online that it takes a lot of time. If we think about that for a minute, it makes some sense. My, um, my wife, for example, uses the Internet for just about everything. The computer for her is a communications center, television, office, store, and music player. Yet still, most people agree that it's not good to spend too much time on the Internet. Everything in moderation, right? One US newspaper told about a woman who was on the Internet so often that her husband left her, and she forgot to buy food for her children. She, uh, also forgot to buy enough oil to heat her house. A Chinese magazine told about a teen-age boy who jumped off a roof and died, because he had said he wanted to be with the

characters in his favorite computer game. The same magazine told stories of other children who skip school and go to Internet bars all day. It said that some of them can't sleep, and that their hands become numb.

What can be done to help people like this? Well, doctors aren't sure. IAD is new, so they do not have much experience treating it. Some are trying programs similar to those that help people stop smoking and gambling. Ivan Goldberg, the doctor who invented the term IAD, says people who think they might be addicted to the Internet should try to help themselves. First, Goldberg advises them to examine their pattern of Internet use. They should know how much time they spend at the computer, and also should ask themselves how often they think about the Internet. Then they should ask why they use the computer so much? Are they escaping from a problem? The third step is to make a plan to solve the problem, as opposed to just ignoring it. Finally, they should make a plan to reduce their Internet use, such as trying to reduce their computer time a little bit each day. This, incidentally, raises the question of how much daily time someone should spend on the Internet. Doctors say there is perfect amount of time that is right for everyone. One doctor who has studied IAD says it's important to keep a balanced life. Time on the Internet should not distract people from doing other things they like, and it should not cause people to miss time with their family and friends.

1. What is the lecture mainly about?

- (A) Abuse of the Internet (B) Internet versatility  
(C) A physical disease (D) A type of mental illness

2. According to the professor, what is one way that Internet Addiction Disorder affects sleep?

- (A) It improves rest by making Internet users tired.  
(B) It promotes a faster onset of the REM sleep stage.  
(C) It causes people to dream about being online.  
(D) It interferes with Internet users' brain waves.

3. According to the lecture, which of the following statements is NOT true?

- (A) A new drug has proven successful in helping people with IAD.  
(B) Some doctors are treating IAD the same way as drinking and gambling addictions.  
(C) Ivan Goldberg says internet addicts cannot help themselves.  
(D) There are several successful cases of people overcoming IAD.

4. According to the professor, what is a sign of Internet Addiction Disorder?

- (A) A craving for more time online  
(B) Chronic back pain from sitting down too long  
(C) A preference for increased social interactions  
(D) Disinterest in books and information about the Internet

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: Students today learn how to use computers as early as age 5 or 6. They are also spending more time online, surfing the web, e-mailing, twittering, playing games, using Face Book, etc. Rumor has it some even use the Internet to research term papers [laughter].

5. What does the professor imply when he says this: Rumor has it some even use the Internet to research term papers [laughter].

- (A) He believes most students use the Internet for school assignments.
- (B) He suspects that many of his students do not use the Internet for serious study.
- (C) He knows that few of his students would use the Internet for term papers.
- (D) He thinks that a majority of his students do not know how to use a computer.

# TOEFL Listening Lecture 44

*Listen to part of a lecture from a **life sciences class**.*

Prof: Raise your hand if you're right-handed. Yep, that looks typical. Most of us -- about ninety percent -- are right-handed. It's been that way throughout history. In ever...In nearly every culture, right has been associated with positive qualities, while the left has been associated with negative, or even evil, ones. In Latin, left means "sinister." In ancient Japan, men could reject, er, refuse, to marry women who were left-handed. Um, in modern China, teachers try to force left-handed students to learn to write with their right hands. And, as I'm sure all lefties know, everyday items, like, can openers, uh, scissors, and uh, computer keyboards, are designed for righties. In short, left-handers have been made to feel "left" out ... [pause]. Get it? (sound of groans).

It might seem straightforward to you and I, but scientifically speaking, the basis of handedness is not well understood. Most scientists define right-handed or left-handed on the basis of a person's preferred writing hand. [Coughs] But some scientists claim it should be based on the hand that is, um, faster and more accurate in performing manual activities, like tightening a screw or, uh, tying a knot. Still others claim that ability doesn't matter; in other words, that handedness should denote only preference. Yes, question?

S1: What about people who are anti, um, ambi, uh...who use both hands?

P: You mean ambidextrous. Actually, most scientists agree that genuine ambidexterity is rare, and several of them believe it even rates its own special category as a distinct type of handedness. Uh, the reason for this is that most people can perform several functions relatively equally with either hand, which causes another scientific faction to argue that there are actually only two types of handedness - right and non-right. This group advocates measuring handedness on a continuum, from 100-percent right-handed to 100-percent left-handed. On this scale, we'd say something like, "I'm 60-percent right-handed," or "I'm eighty-two-point-five-percent right-handed" -- though how we'd determine who's more right-handed than another would open a whole new can of worms. OK, um, yes?

S2: How do people become right-handed or left-handed in the first place? Does it come from your genes?

P: Mostly, yes. Research shows that handedness is largely genetic. Er, interestingly, though, even when both parents are left-handed, the odds are no better than 50-50 that their children will be lefties. Some scientists believe there is a specific gene that determines right-handedness, but the, uh, trouble is that they can't pinpoint it. They think this gene also aids the development of speech and language comprehension. Many researchers believe that handedness is a result of something called brain lateralization, which is the, uh, concept that each hemisphere of the brain controls different bodily functions. Researchers have long been

believed that a person's dominant hand is on the side opposite the brain hemisphere that controls their language specialization, so that right-handed people use the left half of their brain for processing language. But brain lateralization, is, um, not well documented, and there is evidence that seems to contradict this concept. For instance, while it's true that more than 90 percent of right-handed people do process language in their left hemisphere, recent research shows that about 40 percent of left-handed people also process language primarily in the left side of their brain. Additionally, only 10 percent of lefties rely primarily on their right brain to process language.

So, um, what can we make of this? Though genetics clearly plays a vital role in determining handedness, environment also seems to be a factor [false start] an important factor. A recent archaeological study compared a group of modern Canadians with 1,000-year-old skeletons from a British farming community. The Canadians showed right-handed dominance by a nine-to-one ratio of larger right elbows than left ones. In the ancient skeletons, however, most right and left elbows were equal. Now, this doesn't prove that the British farmers were ambidextrous, but researchers say it does suggest that handedness can be subject to societal influence. So for many, the best hypothesis at this time is that handedness results from a complex interaction of nature and nurture.

1. What is the main topic of the lecture?

- (A) The definition of handedness
- (B) Right-handed dominance
- (C) Handedness genetics
- (D) The scientific basis of handedness

2. Why does the professor mention Japan and China?

- (A) In reference to an archaeological study
- (B) To explain a recent scientific theory
- (C) As examples of handedness prejudices
- (D) To counter a point about handedness genetics

3. According to the professor, what is the problem with the concept of brain lateralization?

- (A) Different parts of the brain control different body functions.
- (B) The same part of the brain controls all bodily functions.
- (C) It has been disproven by a recent archaeological study.
- (D) It does not seem to apply to determining handedness.

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: In Latin, left means "sinister." In ancient Japan, men could reject, er, refuse, to marry women who were left-handed. Um, in modern China, teachers try to force left-handed students to learn

to write with their right hands. And, as I'm sure all lefties know, everyday items, like, can openers, uh, scissors, and uh, computer keyboards, are designed for righties. In short, left-handers have been made to feel "left" out ... [pause]. Get it? (sound of groans).

4. Why does the professor say this: Get it?

- (A) He wants to know if students read their assignment.
- (B) He wants to direct students' attention to a pun.
- (C) He wants to know if the students can hear him.
- (D) He wants to see if the students are paying attention.

5. In the lecture, the professor mentions problems scientists have in determining handedness. Indicate which of the following statements is true.

- (A) Some scientists claim the only handedness is right and non-right.
- (B) Most scientists define handedness by manual performance accuracy.
- (C) Only 2 percent of all people are genuinely ambidextrous.
- (D) About 90 percent of left-handers process language in the left side of their left brains.

# TOEFL Listening Lecture 45

*Listen to part of a lecture from a **social sciences** class.*

Prof: Have you ever heard something like this on the news: "Air Force One has landed, and the president and first lady are now walking across the tarmac"? Ever wonder what tarmac is? If so, take heart: you're not alone. Tarmac, it turns out, is a type of surface pavement that is short for [enunciates slowly and clearly] tar-penetration macadam. Got that? It's a mouthful. Actually, here in the United States we don't use Tarmac much anymore, because it's been supplanted -- that is, upstaged, by asphalt. But we still use the term when referring to the pavement at airports.

The "macadam" part of Tarmac refers to a Scotsman named John McAdam. McAdam, in the early nineteenth century, invented a method to strengthen paved roads and increase the way water drains off roadways. He named his technique, modestly, "macadam roads" [laughter]. Macadam roads had a sloped roadway covered with three layers of gravel [false start] angular gravel, which was compacted by a heavy roller. These roads were undoubtedly stronger than previous ones, but they posed a new difficulty: dust. When automobiles began using them, the cars raised swirling clouds of debris, making it, shall we say, daunting to see. So, as early as the 1830s, people started experimenting by covering macadam roads with tar and sand, in an attempt to solve this problem.

In 1901, a man named E. Purnell Hooley [pause] really [laughter] invented a mixture of tar and a furnace waste material called slag, to come up with the infamous tar-penetration macadam -- Tarmac -- that improved the dust resistance on macadam roads. Soon, roads throughout England were resurfaced with Hooley's invention, and the company he founded, Tarmac Limited, became very profitable. During World War II, the British used Tarmac to build airstrips for jet fighters, which is why we still use the term Tarmac today as a synonym for runways and other paved airport areas. OK. Now from Britain, Tarmac spread to the United States, but Americans preferred asphalt, which is a substance that occurs naturally in lakes and rocks, as well as synthetically as a byproduct of petroleum production. Asphalt is more resilient than tar, and holds up better in a wider range of temperatures. Its first recorded use dates back to about 3,000 BC, when the Sumerians used it to, uh, preserve mummies, waterproof ships, and cement bricks. Hot-mix asphalt, or HMA, is a combination of aggregates - like sand, gravel or, um, crushed stone minerals - and an asphalt binder, like coal tar. It was first used in the US for crosswalks and sidewalks in the late 19 --er, 1860s. The first road was paved with HMA in 1870, in New Jersey.

Until about 1900, US producers used natural asphalt, which they got mainly from two large lakes in Venezuela. Refined petroleum asphalt first appeared in the 1870s, and by 1907 its production out-paced natural asphalt. HMA pavement took its modern form in the early twentieth century, when Frederick Warren earned patents for a hot-mix asphalt paving that he termed "bitulithic." That's B-I-T-U-L-I-T-H-I-C. Typically, bitulithic mix contains

ingredients that make it more "fluid" than sheet asphalt. Laura Ingalls Wilder, a noted American author, described this fluidity upon her first encounter with asphalt, as she watched ladies walk across the asphalt pavement. "Their heels dented the street, and while we watched, these dents slowly filled up and smoothed themselves out," she wrote. "It was like magic."

Warren's patents expired in 1920, and since then asphalt mixes have improved. As the popularity of motor vehicles skyrocketed, local governments scrambled to construct more and better roads, leading to technological innovations in both asphalt production and spreading techniques. Today, HMA covers almost 95 percent of America's paved roadways, as well as most of its sidewalks, runways, driveways, parking lots and tennis courts.

1. What is the lecture mainly about?

- (A) The history of road paving (B) The creation of Tarmac  
(C) The life of John McAdam (D) Hot-mix asphalt

2. What resulted from the invention of Tarmac?

- (A) Modern airports (B) Stronger roadways  
(C) Asphalt paving (D) Petroleum production

3. Why does the professor discuss World War II?

- (A) To tell the students a personal anecdote
- (B) To contrast Allied and Nazi strategies
- (C) To explain the origin of a modern synonym
- (D) To refute a point about hot-mix asphalt

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: The "macadam" part of Tarmac refers to a Scotsman named John McAdam. McAdam, in the early nineteenth century, invented a method to strengthen paved roads and increase the way water drains off roadways. He named his technique, modestly, "macadam roads" [laughter].

4. What can be inferred about the professor when he says this: He named his technique, modestly, "macadam roads"?

- (A) He believes that John McAdam was a bit egotistic.
- (B) He thinks John McAdam did not take himself seriously.
- (C) He respects John McAdam's humility.
- (D) He feels resentment toward John McAdam.

5. According to the lecture, indicate which of the following is true.

- (A) John McAdam invented Tarmac.
- (B) Asphalt can be found in lakes and rocks.
- (C) Hot-mix asphalt was used by ancient Sumerians.
- (D) Most US roadways today are paved with Tarmac.

# TOEFL Listening Lecture 46

*Listen to part of a lecture from an **Art History** class.*

Prof: Good morning. Ready to begin? Today I'd like to complement our study of Romanticism by examining more closely the life of Charles Fourier. That's four like the number, then i-e-r. But, before we study Mr. Fourier, let's review what we know about Romanticism. Who can tell me what Romanticism was, and when it lasted? Yes, Mr. Stiles.

S: Romanticism was a cultural and, um, artistic movement in Europe. It lasted for the first quarter of the 18th - no, I mean 19th -- Century.

P: Very nice, Mr. Stiles. Who would like to summarize the main message of Romanticism? Let's see...Mr. Brown?

S: The main message was probably, um, that artists should, uh, that individuals should, use their imagination to choose the form and content of all art. The Romantics thought that the Enlightenment had kind of choked off imagination, and feeling, and creativity, and, um, like stifled all individual freedom.

P: Well put, Mr. Brown. The Romantics loathed any type of rationalism. The Enlightenment had emphasized rationality and reason so much that the Romantics felt the individual had been demolished, reduced to an automated robot. It was time to liberate the soul, to break away and stand out, to reclaim

individual freedom. Rousseau penned the rallying cry in the beginning of his *Confessions*: "...I am not made like any of those I have seen. I venture to believe that I am not made like any of those who are in existence. If I am not better, at least I am different."

So then, it was against this backdrop that Charles Fourier appeared on the historical stage. Mr. Fourier was what Karl Marx would later dub a utopian socialist. He was one of three main utopian socialists, along with Robert Owen and Henri de Saint-Simon. A utopian socialist, broadly speaking, was someone who employed socialist principles to create hypothetical versions of perfect utopias - um, societies that were egalitarian or communal, in which people would live in perfect fairness and harmony. Utopian philosophers believed these kinds of societies could be achieved in the immediate future. They thus planted the first seeds of the early 20th Century socialist movement.

Monsieur Fourier was born in northeast France on April 7, 1772, and he died in Paris on October 10, 1837. He was widely regarded as the most utopian of the utopian socialists. He argued vigorously, for instance, that women should have equal rights with men - and actually coined our modern word feminism. Also, he thought the industrial revolution that was then taking place in England was simply a passing phase; that mankind would move beyond industrialism to something better. As to what that something better would be, Fourier had some rather unusual ideas. He was born into a well-to-do family of cloth merchants, and after he inherited his mother's estate in 1812, he had the money - and time - to pursue these notions. In his four published

works, Fourier laid out a vision of a future community built on emotional bonds, fueled by what he called the laws of "passional attraction." Basic human passions and drives had been repressed for too long, he argued. Now these emotions needed to be openly expressed and harnessed. Men and women would live in self-contained housing units with 1,620 members. Why 1,620? Because Mr. Fourier had determined that people could be classified into 810 different psychological types. If you multiply this by two, for men and women, you get 1,620. With such precise pairing, he was certain that the laws of passional attraction would produce ideal, harmonious relationships.

Many of Fourier's ideas, to be frank, were perfect nonsense. He projected that his new world would last for 80,000 years, the last 8,000 of these in an era of perfect harmony. In this period he predicted, among other things, that six moons would orbit the earth, and the seas would become oceans of lemonade (laughter). But sprinkled amidst his nonsense were enough kernels of fresh thought to qualify Fourier as an instrumental influence on later socialist thinkers, such as Marx and Engels. Many think the most valuable of these kernels was Fourier's idea that work, especially heavy manual labor, could be turned into play: something deeply satisfying both mentally and physically. That was probably the one vision of Fourier's that most captivated later socialist thinkers.

1. What aspect of Fourier's life is the professor mainly discussing?

- (A) His philosophy
- (B) His genealogy
- (C) His personality
- (D) His historical impact

2. What does the professor say about utopian socialists?

- (A) Most of their ideas were nonsense.
- (B) They were characteristic of the Enlightenment.
- (C) They envisioned future societies.
- (D) They had little historical impact.

3. According to the professor, what is a feature of Romanticism?

- (A) Emphasis on reason
- (B) Individual liberation
- (C) Embrace of industrialization
- (D) Focus on rationalism

4. Why does the professor mention moons and lemonade?

- (A) To remind students of a fact
- (B) To make a comparison
- (C) To describe a movement.
- (D) To illustrate a point

5. What can be inferred from the lecture about Charles Fourier?

- (A) He was egotistical.
- (B) He hated women.
- (C) He was eccentric.
- (D) He was a manual laborer.

# TOEFL Listening Lecture 47

*Listen to part of a lecture from an **American History** class.*

Prof: Most scholars agree that women have been short-changed in United States history textbooks. Because a woman has never been a, uh, US president or a commander -- a major commander, anyway -- in a war, these scholars argue that historians have, um, overlooked or ignored the contributions women have made to US history. In recent years, though, a new view of women's history has emerged. It's called "women-centered history," and it's forcing historians to re-interpret traditional pictures of key historical events. Now they're looking at ways women contributed to history "behind the scenes," if you will. For instance, though they didn't fight in wars or occupy the political stage, women formed organizations in places such as churches and clubs, where they discussed ideas and learned skills that would later lead to their emergence in the historical spotlight. Um, Jane Addams is one good example of this. She founded houses for poor people in Chicago, and was an original member of the American Civil Liberties Union, or ACLU. She lobbied government for the rights of workers and women, which paid off in 1920 when women received the right to vote. In 19... uh, 1931, she became the first American woman to win the Nobel Peace Prize.

Women-centered history starts with the premise that females played an important part in shaping US history, and that gender is

a, um, worthy historical distinction. This perspective is different from past models of studying women in US history. One of the first models is called the contribution approach, which concedes that men played the leading historical roles but demonstrates that women were vital "supporting actresses" at every landmark historical event. While this was certainly true, the contribution approach has been criticized because it highlights only the bravest and brightest women, and it also neglects the social role of women in everyday family life. Another [false start] a second historical model is called the victim approach, which emphasizes how men have oppressed women throughout history. Um, although obviously true, it tells only part of the story. It also tends toward emotionalism, overly dramatizing women's plight. Critics charge that under the victim approach, the only women who stand out are the unusual ones, such as the famous Salem "witches" of the seventeenth century. The rest are weak, helpless victims of a male-dominated world.

Women-centered history tends to balance the contribution and victim approaches. Instead of asking, "How have women have helped men?" or "how have men oppressed women?", it asks simply, "What have women done?" Now, in one sense it still gives only a partial picture, because it examines history from only one perspective, but in another sense it gives a fairer and more complete portrait of US women's past than the previous two models. One historian, named Gerda Lerner, says women-centered history tells how women have survived and contributed in a male world "on their own terms." Ms. Lerner claims that women-centered history best portrays the balance of interaction

between women's oppression and women's power. I'm not sure about that, but I do know one thing. It has compelled historians to see certain historical processes in a new light, such as the, eight -- er, nineteenth century temperance movement, and the prohibition movement of the twentieth century.

As feminist scholars keep studying the history of US women, more new approaches are likely to develop. For example, there are still several sub-categories of women's history to consider, such as labor history, social status, the history of women in minority cultures, and so on. There are also class divisions, race divisions, ethnic divisions and religious divisions. Finally, there is the history of women's interactions with other women, not just with men.

1. What is the main topic of the lecture?

(A) Women-centered history (B) The contribution approach

(C) The victim approach (D) Historical models

2. Why does the professor mention Jane Addams?

(A) To argue against traditional US historical models

(B) To correct a misimpression about the Nobel Peace Prize

(C) To illustrate an example of female roles on US history

(D) To demonstrate his knowledge of historical trivia

3. According to the professor, what is one problem with contribution approach?

- (A) It makes the plight of women seem overly dramatic.
- (B) It ignores the most outstanding women.
- (C) It overemphasizes men's oppression of women.
- (D) It does not factor in women's familial social roles.

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: One historian, named Gerda Lerner, says women-centered history tells how women have survived and contributed in a male world "on their own terms." Ms. Lerner claims that women-centered history best portrays the balance of interaction between women's oppression and women's power. I'm not sure about that, but I do know one thing. It has compelled historians to see certain historical processes in a new light, such as the, eight -- er, nineteenth century temperance movement, and the prohibition movement of the twentieth century.

4. What does the professor imply when he says this: "I'm not sure about that...?"

- (A) He thinks that women-centered history is ridiculous.
- (B) He believes that women-centered history is unbalanced.
- (C) He does not fully concur with Gerda Lerner's analysis.
- (D) He knows that Gerda Lerner has changed history.

5. Which of the following describes the victim approach to US History?

(A) It asks, "What have women done?"

(B) It asks, "How have men oppressed women?"

(C) It asks, "How have women helped men?"

(D) It claims that gender is an important historical distinction.

# TOEFL Listening Lecture 48

*Listen to part of a lecture from a **science** class.*

Prof: Many people, including scientists, are confused about the distinction between nuts and seeds. Some dictionaries say a nut is also a seed, others say a nut is a fruit, and still others say a nut can be both a fruit and a seed. How can an average person tell the difference? Well, in a nutshell, nuts are seeds but seeds cannot be nuts. Clear as a bell, right?

Part of the confusion stems from the fact that seeds and nuts are classified differently for botanical purposes and culinary ones. Botanists -- that is, scientists who study plants -- define a seed as part of the, er, a flowering plant or tree that will grow into a new plant or tree if it's, uh, buried in the ground and germinated. In this respect it's similar to a human egg, which becomes an embryo when fertilized by sperm. Sometimes the plant embryo becomes enclosed in a covering, called an integument: I-N-T-E-G-U-M-E-N-T. The embryo plus its integument, therefore, constitute a seed. Um, sunflower seeds are good examples of this. You've got to crack open the black outer part, the integument, to eat the white embryo inside, right? That's why we call them sunflower seeds, and not sunflower nuts.

However, it's possible for an embryo to have no type of integument at all. As these embryos grow, the tissue surrounding them develops into a fruit. We see this form in many berries, as well as tomatoes, and in peanuts and beans. So an embryo, or seed, doesn't need a covering to be called a fruit. Now, some plants produce a type of fruit called nuts. A nut is a plant fruit containing a single seed (with or without integument) that does not attach itself to the ovary, or, uh, inside wall of the nut. Nuts have a dry, tough outer shell that doesn't crack open when the seed becomes mature. Acorns, chestnuts, and walnuts are good examples of nuts. In the botanical sense, a nut is a seed because it is a compound ovary; it contains both the seed and the fruit of a plant. Oft [false start] Usually, a plant's seed can be separated from its fruit, like when you poke seeds from a watermelon. But with nuts, the part inside the outer shell contains both the seed and the fruit, and these can't be pulled apart.

This inside part of the nut, the part inside the outer shell, is called a kernel. The kernel is definitely not a nut. It's a fruit. People often eat the kernel, and when they do this, they say that they are eating a nut -- for example, "I'm eating a pecan," or "I'm eating a chestnut." What they should be saying, technically, is "I'm eating pecan meat," or "I'm eating a chestnut kernel." In the same sense, a peanut typically refers to the entire package of seed-slash-fruit encased in its outer shell, as well as to the edible inner seed-slash-fruit. So, while a nut is botanically classified as a seed, it is primarily in this culinary sense that people confuse nuts and seeds.

Because a nut in cuisine is more, uh, loosely defined than a nut in botany, the term "nut" gets slapped on many seeds that are not true nuts. Almonds, for example, are mistakenly called nuts, even though they are actually the edible seeds of plants called drupes, as are coconuts and pistachio nuts. Cashews are another example of nuts that are really seeds, along with Brazil nuts, which are seeds that come from capsules. In culinary language, any kernel used in cooking that is found within a shell may be labeled as a nut. One attribute nuts and seeds have in common is that both are highly nutritious. Nuts are a great source of energy because they have lots of oil, and are also an excellent source of protein, fiber, magnesium and zinc. Additionally, recent [false start] recent studies have also shown they are beneficial for the blood and heart. Many seeds are packed with vitamin E, which is touted for its anti-aging properties. Nuts and seeds are good not only for humans, but also for wildlife, a fact confirmed each fall when animals such as squirrels, chipmunks and jays can be seen busily storing nuts to avoid starvation in the coming winter cold.

1. What is the lecture mainly about?

- (A) The history of integuments
- (B) The distinction between seeds and nuts
- (C) The botanical definition of a nut
- (D) The nutritional value of nuts and seeds

2. According to the professor, how do botanists define a seed?

(A) It is the part of a plant that will reproduce itself when germinated.

(B) It is any kernel used in cooking that is found within a shell.

(C) It is a plant fruit that does not attach itself to the ovary of a nut.

(D) It is a plant embryo completely encased in an integument.

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: Many people, including scientists, are confused about the distinction between nuts and seeds. Some dictionaries say a nut is also a seed, others say a nut is a fruit, and still others say a nut can be both a fruit and a seed. How can an average person tell the difference? Well, in a nutshell, nuts are seeds but seeds cannot be nuts. Clear as a bell, right?

3. What does the professor mean when he says this: "Clear as a bell, right?"

(A) He thinks the explanation is self-apparent.

(B) He is expressing irritation at the students' stupidity.

(C) He suspects that the scientists are playing a joke.

(D) He is acknowledging that the issue is confusing.

4. Why does the professor mention kernels?

(A) To compare chestnut seeds with watermelon seeds

(B) To highlight the confusion between nuts and seeds

(C) To argue against the botanical definition of a nut

(D) To illustrate a point about compound ovaries

5. What is true of both nuts and seeds?

(A) They have an embryo plus an integument.

(B) They have a plant fruit unattached to an ovary.

(C) They are extremely nutritious.

(D) They will grow into new plants when buried.

# TOEFL Listening Lecture 49

Listen to part of a lecture from a marine biology class.

Prof: You've been reading this month about food chains and food webs. Today we'll discuss these in relation to seafood. How many of you like seafood? Mmm, most of you. So do I. In fact, I'm on a seafood diet. I see food, I eat it. (weak laughter; perhaps some groans or hissing). Get it? Ha ha. OK. But seriously folks...Today we're going to talk about trophic relationships in marine food chains and webs. Who can remind us what a trophic relationship is? Yes, Mr. Li?

S: It's what an organism eats, and uh, the things that eat that organism.

P: Very good. Trophic relationships describe the relationship between producers and consumers, so they help us diagram food chains and food webs. Now, in marine ecosystems, like other ecosystems, food is needed for matter - growth and reproduction - and for energy - metabolic processes within the body. Also like other ecosystems, marine ecosystems have producers, consumers and decomposers. The primary producers are autotrophic plankton. Auto trophic means these plankton can synthesize their own food. Autotrophs are consumed by heterotrophic organisms. "Hetero" means other; so in this case, heterotrophic means organisms that can't synthesize their own food. They must rely on autotrophs for food energy. The primary consumers in marine food chains are the plant eaters -- herbivores -- and the secondary

consumers are both the meat eaters - carnivores - and predators that eat both meat and plants: omnivores. The decomposers are heterotrophic bacteria, which get energy from body wastes and dead tissue, thus cycling it back to the producers.

A simple marine food chain, then, might look like this (sound of writing on board): the top predator, trophic level number 4, is a herring. Herring fish eat level 3, carnivorous zooplankton. The carnivorous zooplankton eat trophic level 2, herbivorous zooplankton. And herbivorous zooplankton eat level number 1, phytoplankton, which is a type of autotroph. In marine food chains, energy transfer is not very efficient. Phytoplankton utilize only about one percent of the energy available from the sun. Between 70 and 90 percent of the energy made by producers or eaten by heterotrophs is used in their bodies or expelled as waste. This leaves only 10 to 30 percent that's retained in the body's biomass and available for consumers at the next highest trophic level. Thus, the biomass at each trophic level is controlled by the efficiency of the energy transfer. At the lowest trophic level, animals will generally have high biomass, and there will be lots of small producers. At the highest trophic level, animals will generally have low biomass, and there will be only a few large animals.

Now, let's expand our simple food chain into a food web. In this web, a herring is no longer a trophic-4 predator. There is a bigger fish, um...a tuna, that eats the herring. But there is an even bigger animal that eats the tuna. And that is...?

S: Us!

P: Yes. And there's something else from the seas that will even eat us. S: Sharks!

P: Correct. A food web is more complex than a food chain. And then there are gigantic animals, like whale sharks and baleen whales, that are herbivores and only eat plankton. But let's focus for a few moments on us. What are the implications of trophic levels for the fish we eat? Well, looking at the fish harvest worldwide, 88 percent of the fish we catch are fish with fins. Eight percent are shellfish, and four percent are crustaceans. Fish caught in the open ocean, such as tuna, are high-level predators on an inefficient food chain. Fish caught in coastal areas, such as cod, herring and haddock, are at the top end of shorter, more efficient food chains. This is because there is a high density of phytoplankton, so consumers expend less energy catching food. These fish, then, provide more energy and better nutrition for us. In "upswelling" areas, off the west coasts of America and Africa, the fish are even healthier. Here there are small, very efficient food chains, and the fish are small, fast-growing, eat lots of phytoplankton and travel in dense schools. Two examples of such fish are anchovies and sardines.

1. What aspect of marine food chains does the professor mainly discuss?

- (A) food webs (B) energy transfer  
(C) trophic relationships (D) seafood harvesting

2. According to the professor, why is herring healthier for us than tuna?

(A) Herring have a more efficient food chain.

(B) Tuna eat more phytoplankton.

(C) Herring live in coastal areas.

(D) Tuna are predators of herring.

3. In the lecture, the professor describes a simple marine food chain. Which of the following is mentioned in the lecture as part of this chain?

(A) cod fish (B) whales (C) phytoplankton (D) sharks

4. How does the professor introduce the topic of seafood?

(A) He gives an example. (B) He tells a joke.

(C) He asks a question. (D) He quotes an expert.

Narrator: Listen again to part of the passage and answer the following question(s).

P: Correct. A food web is more complex than a food chain. And then there are gigantic animals, like whale sharks and baleen whales, that are herbivores and only eat plankton.

5. Why does the professor say this: "And then there are gigantic animals, like whale sharks and baleen whales, that are herbivores and only eat plankton."?

(A) to explain food chains

(B) to remind students of a previous point

(C) to raise a question

(D) to highlight complexity

# TOEFL Listening Lecture 50

*Listen to part of a lecture from **an arts class**.*

Prof: Hello again. [ahem] Well, we're near the end of our unit on newspapers. I'm going to talk about our national newspaper, USA Today. Some of you might recognize it as the topic of this week's reading assignment. US [chuckles; false start] USA Today is now more than 25 years old. When it began, few expected it would last this long. Well, not only has it lasted, it has thrived. USA Today is the largest-selling daily newspaper in America. It is also distributed in many countries around the world. But that's only part of the story. The real success of USA Today is the way it changed the newspaper industry. USA Today changed the way papers look. It changed the way reporters write. And it changed the way papers gather and deliver news.

USA Today set out to be different. Newspapers at that time were, um, in trouble. Fewer people were reading them. The papers were full of bad news about crime and killing. They had long stories. They didn't have color photos and graphics., and many could not include the latest sports scores. USA Today changed all that. It had shorter stories, most of which did not jump, or continue, from one page to another. It used color photos, and colorful charts and graphics. It did not have much international news, but it did have lots of sports, entertainment and human-interest stories. It was trying to appeal to younger readers. These readers had been

raised watching television, so they had trouble, uh, paying attention to longer stories. They wanted, erm, to be entertained, not informed. At first, many people laughed at USA Today. Other newspapers called it "McPaper." They were comparing it to McDonald's fast food, which isn't, um, very healthy. It fills you up, but it doesn't have much nutrition. They said McPaper was the same way -- it looked good, but the news it had wasn't very important. People said USA Today "dumbed down" the news. Does anyone know what "dumb down" means?

S1: Yeah, I think it means to make things too simple. Like, you want to make it easy to understand, but you make it too easy. So it's like writing for a little child.

P: That's exactly right. If you make something too simple, people get mad. They think that the writer thinks they're stupid. But a funny thing happened. More and more people started reading USA Today. About a year after it started, it had a circulation of more than one million. Today, its circulation is past two million. Question?

S2: Yo, what does circulation mean?

P: Circulation is the number of papers that are read each day. It means [false start] It means that USA Today distributes more than two million copies of each issue. When other papers saw this circulation grow, they became worried. So, they started to, uh, copy USA Today's style. Their stories got shorter, and they started using lots of color photos and charts. They replaced quote unquote serious news with feature stories. Soon, it became normal for newspapers to look like USA Today. But it wasn't only

appearance that made USA Today so popular. One very big reason for its success was timeliness. Timeliness means its ability to report the latest news. Daily newspapers have a deadline, which is the time they have to stop writing and start printing the paper. The deadline often caused papers to leave out news. This was especially true of East Coast papers and, erm, West Coast sports scores. Basketball, football and baseball games would end on the West Coast at 11 p.m. But that's 2 a.m. Eastern time. This was too late to put the score of the game in the next day's paper. USA Today, however, used satellites to transmit news. It could set later deadlines, so it could include the West Coast scores. This, alone, caused many people to buy the paper. Yes?

S3: But today most papers use satellites. So why has USA Today's circulation kept growing?

P: Excellent question. Uh, actually, USA Today has changed. It still looks colorful, but it's started to become more like traditional papers. It's stories are getting longer, and it has more international news. It changed because people are changing. The paper needed to appeal to more, um, educated readers, because they're the ones with money. Also, it needed to sell more papers overseas. International readers don't want "dumbed down" news.

1. What aspect of USA Today does the professor mainly discuss?

(A) how it changed the newspaper industry

(B) why its circulation has kept growing

(C) the type of people who read the paper

(D) how the paper gets late sports scores

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: I'm going to talk about our national newspaper, USA Today. Some of you might recognize it as the topic of this week's reading assignment. US [chuckles; false start] USA Today is now more than 25 years old.

2. What can be inferred about the professor when he says this: "Some of you might recognize it as the topic of this week's reading assignment."?

- (A) He knows that all the students are familiar with the subject.
- (B) He is angry at the students because he thinks they are lazy.
- (C) He thinks many students have not yet read the assignment.
- (D) He doesn't think that any students have read the assignment.

3. Why does the professor mention McDonald's?

- (A) to compare the quality of its food with the quality of USA Today's stories
- (B) to compare the design of its restaurants with the look of USA Today's pages
- (C) to compare the great success of McDonald's with the success of USA Today

(D) to compare the early years of McDonald's with the early years of USA Today

4. What is a key feature of USA Today mentioned in the lecture?

(A) lots of international news

(B) color photos and graphics

(C) stories about crime and killing

(D) stories that jump from page one

Narrator: Listen again to part of the passage and answer the following question(s).

Prof: Other papers saw this circulation grow. They became worried. So, they started to, uh, copy USA Today's style. Their stories got shorter. They started using lots of color. They replaced quote unquote serious news with feature stories. Soon, it became normal for newspapers to look like USA Today.

5. Why does the professor imply when he says this: "They replaced quote unquote serious news with feature stories."?

(A) that USA Today does not know what serious news is

(B) that other papers shouldn't have copied USA Today

(C) that people have different definitions of serious news

(D) that USA Today changed the style of other papers

6. What can be inferred about circulation?

(A) It measures the number of people who buy each issue of the paper.

(B) It measures the number of people who read each issue of the paper.

(C) It measures how many people buy and read each issue of the paper.

(D) It measures neither how many people buy nor read each issue of the paper.