



How to sleep

Lesson code: K6CG-J65B-8PVX-U

ADVANCED

1 Warm-up

Do you get enough sleep every night?

2 Before you watch

Match the underlined words to their definitions below:

1. When the tide rises at night the water can get quite close to the entrance of the restaurant.
 2. I watched the crabs scramble up the beach.
 3. When the tide is low, the crabs skitter down the beach towards the water.
 4. Marty's behaviour is getting very strange. I think he's losing the plot.
 5. They really enjoyed the party. They've been raving about it all day.
 6. Janet is very atypical. She hates shopping, flowers and chocolate.
 7. Our internal body clock is a huge driver for culture.
 8. The website problems were caused by a surge in users.
 9. When I flew from London to Los Angeles, I suffered from jet lag.
- a. a sudden increase
 - b. a tired feeling because you have travelled in a plane across different time zones.
 - c. climb quickly using arms and legs
 - d. lose your ability to understand or cope with what is happening
 - e. not representative of a type, group, or class.
 - f. run lightly
 - g. something that creates activity
 - h. talking in an excited way about something
 - i. the alternate rising and falling of the sea



3 Listening and Watching

You are going to watch Jessa Gamble talk about our natural sleep cycle. Put T (True) or F (False) next to each statement below and then watch the talk to check your answers.

1. Every plant and animal has its own chemical clock.
2. If you take a horseshoe crab off the beach, it will change its behaviour.
3. If you live underground without a watch for two months, you will get up earlier than usual.
4. When there is 24 hours of darkness in winter, people are very productive .
5. Under natural conditions, humans sleep twice every night.

4 Checking understanding

What do you remember? Choose the correct answer for each question below, and then check by reading the transcript of the talk.

1. Why do horseshoe crabs continue to behave as though they are on the beach?
 - a. They have internal cycles.
 - b. They have good memories
 - c. they can smell the beach
2. How do humans know when to sleep when they are underground without a watch?
 - a. we can count
 - b. have internal body clocks
 - c. we can speak
3. Why are people very active in the summer in Arctic Canada?
 - a. because it's warmer
 - b. because there it is never dark
 - c. because they eat more
4. What do people in natural sleep studies experience for the first time in their lives?
 - a. deep sleep
 - b. cleaner air
 - c. true wakefulness
5. Why are our body clocks disturbed?
 - a. because of modern culture
 - b. because of climate change
 - c. because of watches



5 Find the words

Find a word or phrase in the transcript which means...

1. something that exists (*noun, P1*) _____
2. very strange and not able to be explained by what scientists know about nature and the world (*adj., P2*) _____
3. a strong building that is mostly below ground and that is used to keep soldiers, weapons, etc., safe from attacks (*noun, P3*) _____
4. to live or behave without a clear purpose or goal (*verb, P3*) _____
5. valued too low (*adj., P4*) _____
6. never-ending natural light (*phrase, P4*) _____
7. extremely busy and active (*adjective, P4*) _____
8. not sleeping (*noun, P5*) _____

Complete the sentences below with the above words in the appropriate form:

1. Some scientists believe that there are other intelligent _____ in the universe.
2. Moscow's metro stations were built so deep underground — they were designed to function as _____ in the event of a nuclear attack.
3. In the Arctic, _____ lasts from May to August. The sun never sets during this period.
4. It is difficult to force yourself to sleep during a period of _____.
5. After Joe lost his job and his wife, he didn't know what to do in his life, so he just _____ from place to place.
6. This film is very _____ — it should have won an Oscar.
7. Many people believe in _____ phenomena such as ghosts and aliens.
8. People who show signs of _____ behaviour are excessively cheerful and they can go for days without sleep and without feeling tired.

6 Talking point

Discuss any of the following questions:

1. Do you think our culture has a negative impact on our natural body clocks?
2. Do you find it difficult to get up in the morning?

7 Flashcard review

Don't forget what you learned in this lesson! Go to www.linguahouse.com/ex.



3 Listening and Watching

- 1 Let's start with day and night. Life evolved under conditions of light and darkness, light and then darkness. And so plants and animals developed their own internal clocks so that they would be ready for these changes in light. These are chemical clocks, and they're found in every known being that has two or more cells and in some that only have one cell.
- 2 I'll give you an example -- if you take a horseshoe crab off the beach, and you fly it all the way across the continent, and you drop it into a sloped cage, it will scramble up the floor of the cage as the tide is rising on its home shores, and it'll skitter down again right as the water is receding thousands of miles away. It'll do this for weeks, until it kind of gradually loses the plot. And it's incredible to watch, but there's nothing psychic or paranormal going on; it's simply that these crabs have internal cycles that correspond, usually, with what's going on around it.
- 3 So, we have this ability as well. And in humans, we call it the "body clock." You can see this most clearly when you take away someone's watch and you shut them into a bunker, deep underground, for a couple of months. (Laughter) People actually volunteer for this, and they usually come out kind of raving about their productive time in the hole. So, no matter how atypical these subjects would have to be, they all show the same thing. They get up just a little bit later every day -- say 15 minutes or so -- and they kind of drift all the way around the clock like this over the course of the weeks. And so, in this way we know that they are working on their own internal clocks, rather than somehow sensing the day outside.
- 4 So fine, we have a body clock, and it turns out that it's incredibly important in our lives. It's a huge driver for culture and I think that it's the most underrated force on our behavior. We evolved as a species near the equator, and so we're very well-equipped to deal with 12 hours of daylight and 12 hours of darkness. But of course, we've spread to every corner of the globe and in Arctic Canada, where I live, we have perpetual daylight in summer and 24 hours of darkness in winter. So the culture, the northern aboriginal culture, traditionally has been highly seasonal. In winter, there's a lot of sleeping going on; you enjoy your family life inside. And in summer, it's almost manic hunting and working activity very long hours, very active.
- 5 So, what would our natural rhythm look like? What would our sleeping patterns be in the sort of ideal sense? Well, it turns out that when people are living without any sort of artificial light at all, they sleep twice every night. They go to bed around 8:00 p.m. until midnight and then again, they sleep from about 2:00 a.m. until sunrise. And in-between, they have a couple of hours of sort of meditative quiet in bed. And during this time, there's a surge of prolactin, the likes of which a modern day never sees. The people in these studies report feeling so awake during the daytime, that they realize they're experiencing true wakefulness for the first time in their lives.
- 6 So, cut to the modern day. We're living in a culture of jet lag, global travel, 24-hour business, shift work. And you know, our modern ways of doing things have their advantages, but I believe we should understand the costs.
- 7 Thank you.



2 Before you watch

1. i 2. c 3. f 4. d 5. h 6. e 7. g 8. a 9. b

3 Listening and Watching

1. T 2. F 3. F 4. F 5. T

4 Checking understanding

Hand out the transcript page. If you are teaching online, you can use a pdf file splitter (e.g. www.splitpdf.com) to extract the transcript page from the key version of the worksheet.

1. a 2. b 3. b 4. c 5. a

5 Find the words

1. being	2. paranormal	3. bunker	4. drift
5. underrated	6. perpetual daylight	7. manic	8. wakefulness
1. beings	2. bunkers	3. perpetual daylight	4. wakefulness
5. drifted	6. underrated	7. paranormal	8. manic

