

Małgorzata Karczewska

# **TED** **to fight** **tedious** **classes**

**TED-based activities  
for practical English classes**

Uniwersytet Zielonogórski



To all of you  
who are my everyday inspiration.  
Thank you for your support.  
M.



**Małgorzata Karczewska**

# **TED to fight tedious classes**

**TED-based activities  
for practical English classes**

Zielona Góra 2024

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# Table of contents

Introduction .....	7
--------------------	---

## Part I

### Language and communication

The benefits of a bilingual brain .....	11
How languages evolve .....	14
How interpreters juggle two languages at once .....	17
The language of lying .....	20
Do animals have language? .....	23

## Part II

### The animal world

Why do cats act so weird? .....	29
How do dogs “see” with their noses? .....	32
Why elephants never forget .....	35
Why the octopus brain is so extraordinary .....	38
Sex determination: more complicated than you thought .....	41

## Part III

### Medical issues

How mucus keeps us healthy .....	47
Why are some people left-handed? .....	50
How do cigarettes affect the body? .....	53
The benefits of good posture .....	56
Learning from smallpox: how to eradicate a disease? .....	59

Part IV  
**Psychology and well-being**

How stress affects our body .....	65
How stress affects our brain .....	68
How sugar affects the brain .....	71
What would happen if you didn't sleep? .....	74
Three tips to boost your confidence .....	77
References .....	81

# Introduction

The present ebook, titled *TED to fight tedious classes. TED-based activities for practical English classes*, is a fruit of my experience in teaching practical English classes at the University of Zielona Góra, Poland. One of the components of the practical English classes I teach is listening, in some cases combined with speaking.

As my students major in English, and most of them are at a high level of competence in English, it was clear to me that I had to find an interesting source of inspiration to make my classes engaging. This is why I decided to use TED talks and lessons. As explained in my article *TED to fight tedious classes: the use of TED talks and TED-ED lessons in the (online) English classroom* (2021), the TED website offers a wide range of talks while the TED-Ed website provides lessons on different topics.

TED talks and lessons have many advantages: the content is available online, both during an English class and for individual use by students. Also important is that the website offers recordings which range in terms of duration (from three to over forty minutes) and topics (psychology, history, medical studies, social issues, etc.), which makes it easier to adjust the material to the actual class. From the point of view of teaching and learning English as a foreign language, a useful tool is the option of subtitles available in English as well as in a series of other languages.

TED content has further advantages: it fits into the trend of edutainment combining education and entertainment which is popular with students, it enhances learner autonomy and offers interesting topics to discuss. As TED presenters are (mostly) native speakers of English, students have exposure to a variety of English accents. As these are authentic materials, students can see how they cope with materials not originally meant to be used in education.

For me, a very important feature of TED is the fact that it gives access to knowledge about the world. In this way, my students observe that being able to understand English is not an abstract ability, but it gives access to all the knowledge in this language

available online. They learn English indirectly while exploring a world of ideas, almost as a kind of a by-product of listening to the recordings.

TED is useful in teaching vocabulary, but also for pronunciation, and spelling (if English subtitles are used), it can also be a source of inspiration for speaking or even grammar exercises. The ebook can be used with students with at least B1+ level competence in English.

In the present ebook, I offer several exercises based on the TED-Ed material, i.e., twenty lessons on the topics which belong to four categories: Language and communication, the Animal world, Medical issues and Psychology and well-being. The acronym created, LAMP, is a great metaphor for what TED might be in education: a source of light bringing joy and happiness to the study of English. In this way, the *Technology, Education and Design* conference in 1984 was a spark which led to the creation of the TED website promoting *ideas worth spreading*.

I hope that the TED material will be a valuable tool in teaching and learning English and I would like to wish you all, both teachers and students, a fruitful use of this ebook.

Good luck!

## Part I

# Language and communication

The benefits of a bilingual brain  
How languages evolve  
How interpreters juggle two languages at once  
The language of lying  
Do animals have language?



# The benefits of a bilingual brain

(Mia Nacamulli)

[https://www.ted.com/talks/mia\\_nacamulli\\_the\\_benefits\\_of\\_a\\_bilingual\\_brain](https://www.ted.com/talks/mia_nacamulli_the_benefits_of_a_bilingual_brain)

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please answer the following questions in pairs:

- The key term of the lesson is bilingualism. Do you understand this term? If not, try to find a definition of this phenomenon.
- In your opinion, what are the benefits of being bilingual?
- Are there any disadvantages of it?
- Are you bilingual? Why? Why not?

**Task 2** In the talk, there are some medical terms used:

*brain image technology*

*hemisphere*

*lateralization*

*grey matter*

*dorsolateral prefrontal cortex*

Make sure you understand them prior to listening to the talk.

## LISTENING

**Task 3** Listen to the talk and answer the following questions:

Are there more monolinguals or bilinguals in the world?

.....

What are the benefits of being bilingual or multilingual?

.....

What is language ability?

.....

What types of bilingualism are mentioned in the talk? What are their features?

.....

.....

Why was bilingualism perceived as a handicap in the past?

.....

FURTHER DISCUSSION

**Task 4** Think about a bilingual person you know. Discuss these issues in pairs:

- What is their experience with bilingualism?
- What is their linguistic performance like?
- Is one of the languages they speak more dominant?

VOCABULARY

**Task 5** The words and expressions in bold are used in the talk.

Try to figure out their meaning from the context:

A balanced bilingual has near-equal abilities **across the board** in two languages

Most bilinguals around the world know and use their languages **in varying proportions**

Gabriella develops two linguistic codes **simultaneously** (...) learning both English and Spanish

She begins to **process** the world around her

To learn a secondary language by **filtering it through** one's primary language

The difference may not be **apparent to a casual observer**

recent advances in brain imaging technology have given neurolinguists a **glimpse** into how specific aspects of language learning affect the bilingual brain

this is a matter of degree, not an absolute **split**

learning a language in childhood may give you a more holistic **grasp** of its social and emotional contexts.

higher **density** of the grey matter

To delay the **onset** of diseases

a view based largely on **flawed** studies

the effort and attention (...) **triggered** more activity

the part of the brain that plays a large role in **executive functions**

make the linguistic **leap**

## GRAMMAR

**Task 6** When describing an imaginary situation, you can use conditionals, wishes and various expressions such as *I would like to*, *it would be useful/wonderful/good to do*, etc.

Think about the languages you would like to learn or the ones which are believed to be useful nowadays. Express your ideas in five sentences supporting your opinion with your own arguments.

1. ....  
.....
2. ....  
.....
3. ....  
.....
4. ....  
.....
5. ....  
.....

**Task 7** Fill in the gaps with the words used in the talk:

1. If you are watching this in English, ..... are you belong to the world's bilingual and multilingual .....
2. Language ability is typically ..... in two ..... parts and two.....parts.
3. They can be ..... in three general types.
4. Gabriella develops two linguistic codes simultaneously, with a ..... set of .....
5. Gabriella's parents are ..... to be subordinate bilinguals.
6. All types of bilingual people can become fully ..... in a language ..... of accent or .....
7. The brain's ..... hemisphere is more ..... and ..... in ..... processes.
8. The ..... hemisphere is more ..... in ..... and ..... ones.
9. Lateralization develops ..... with .....
10. But ..... of when you.....additional languages, being multilingual gives your brain some ..... advantages.

Now listen to the talk again and check your answers.

# How languages evolve

(Alex Gendler)

<https://ed.ted.com/lessons/how-languages-evolve-alex-gendler>

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please discuss the following issues in pairs:

- What are the most characteristic features of your mother tongue?
- What languages is your mother tongue related to?
- Can you, to some extent, understand these languages being spoken?
- Can you spot any similarities in vocabulary between your mother tongue and English? Do you know what the reason for these similarities is?
- What languages are the most popular nowadays? Why?
- Can you name any language which is extinct or endangered?
- What is the reason for that?

## LISTENING

**Task 2** Listen to the talk and answer the following questions:

What is the history of languages according to the Bible?

.....

What does linguistic research claim on that matter?

.....

Why did the number of languages rise?

.....

How are languages related to each other?

.....

How do linguists study relations between languages?

.....

What else can be revealed in linguistic studies?

.....

What problems do linguists face in their studies?

.....

How many languages are there? How can dialects be distinguished from languages?

.....

.....

### FURTHER DISCUSSION

**Task 3** Answer the following questions:

- Are there any dialects in your mother tongue?
- Are these dialects mutually intelligible?

In the talk, the following notions are used: borrowing, cognate, false cognate. Make sure you understand them, if not, ask your teacher for help.

Try to find examples of borrowings, cognates and false cognates from English in your mother tongue.

### VOCABULARY

**Task 4** The words and expressions in bold are used in the talk.

Try to figure out their meaning from the context. You can use a dictionary if necessary.

The thousands of languages existing today can be **traced back** to a much smaller number

.....  
in search of fresh **game** and **fertile** land

.....  
They settled in new places

.....  
**encountering** different neighbours

.....  
Modern linguists (...) **trace** multiple languages (...) to their common **ancestor**

.....  
They are **derived from** a common **root**

.....  
basic vocabulary such as pronouns, numbers or **kinship terms**

.....  
looking for **correspondence** between languages

.....  
earlier languages without **written records**

.....  
its dialects **vary** to the point of being **mutually unintelligible**

.....  
to determine how languages **came about**

.....

## GRAMMAR

**Task 5** In the talk, several irregular verbs are used. Fill in the gaps with their past simple and past participle forms:

to come	– .....	– .....
to grow	– .....	– .....
to read	– .....	– .....
to rise	– .....	– .....
to speak	– .....	– .....
to split	– .....	– .....
to spread	– .....	– .....
to write	– .....	– .....

**Task 6** In English, there are countable and uncountable nouns. Below you can find some nouns, please check in an English monolingual dictionary if they are countable or uncountable:

evidence –  
 furniture –  
 advice –  
 information –  
 news –

If they are uncountable, check how to render the idea of plurality.

In the talk, the form peoples was used. Check its meaning and usage.

**Task 7** Below you can find some extracts from the talk. Fill in the gaps with prepositions:

..... the biblical story ..... the Tower ..... Babel; all ..... humanity;  
 they suddenly split ..... many groups unable ..... understand each other;  
 languages existing today can be traced ..... ..... a much smaller number;  
 how did we end ..... ..... so many? ..... the early days ..... human migration;  
 going separate ways ..... search ..... fresh game; they became isolated ..... one another  
 and developed ..... different ways; centuries ..... living ..... different conditions turned  
 similar dialects ..... varied pronunciation and vocabulary ..... radically different lan-  
 guages; tracing languages ..... far ..... they can ..... their common ancestor;

Now listen to the talk again and check your answers.

# How interpreters juggle two languages at once

(Ewandro Magalhaes)

[https://www.ted.com/talks/ewandro\\_magalhaes\\_how\\_interpreters\\_juggle\\_two\\_languages\\_at\\_once](https://www.ted.com/talks/ewandro_magalhaes_how_interpreters_juggle_two_languages_at_once)

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please answer the following questions in pairs:

- Would you like to be an interpreter? Why? Why not?
- In your opinion, what qualities should a good interpreter have?
- What are potential difficulties which an interpreter may encounter?
- What solutions to these problems could you suggest?

**Task 2** Prior to listening to the talk, find information on the Cold War.

What do you know about the Soviet Union? Who was Nikita Khrushchev?

## LISTENING

**Task 3** Listen to the talk and answer the following questions:

What problem in interpreting is described?

.....

What consequences could have that caused?

.....

How did interpretation take place in the past before the radio era?

.....

How is it done nowadays?

.....

How much time does it take to become a conference interpreter?

.....

How are interpreters trained?

.....

What are the tricks used by interpreters in the face of difficulties?

.....

What problems may interpreters face at work? How do they solve them?

.....

FURTHER DISCUSSION

Task 4 Answer the questions in small groups:

- What is the difference between interpreters and translators?
- If you wanted to become an interpreter, how would you practice to be a good one?
- Have you ever tried to work as an interpreter? What might be the most difficult aspect of this activity?
- Can you think of any untranslatable expression or word in your mother tongue? How would you render it in English?

Name five situations in which interpreters' and/or translators' work is necessary.

VOCABULARY

Task 5 The words and expressions in bold are used in the talk. Try to figure out their meaning from the context:

Interpreters **juggle** two languages at once .....  
The statement **sent shockwaves** through the Western world .....  
The tension between the Soviet Union and the US who **were in the thick of** the Cold War .....  
This incident alone **set East/West relations back a decade** .....  
.....  
Communism would **outlast** capitalism .....  
The impact of Krushchev's apparent words **put the world on a path** that could have led to a nuclear armageddon .....  
A new simultaneous interpretation system was developed **in the wake of** World War II .....  
.....  
**On the Surface**, it all looks **seamless** .....  
**but behind the scenes** .....  
human interpreters work **incessantly** .....  
to ensure every idea **gets across** as intended .....  
the interpreter masters a **vast array of tricks to keep up with speed** .....  
.....  
they may **resort to** acronyms to shorten long names .....  
They **refer to** slides and other **visual aids** .....  
Interpreters are also skilled at **keeping aplomb** in the face of chaos .....

## GRAMMAR

**Task 6** To refer to imaginary past situations, the third conditional is used if there is a condition which would have made it possible. If one clause describes an imaginary present situation, a mixed conditional is used. For imaginary present or future situations, the second conditional is used. Possible future situations are rendered with the first conditional while general truths are expressed with zero conditional.

Below, there are five situations described. Use conditionals to describe a reverse imaginary situation:

1. I do not speak German, so I did not get that job.

.....

2. The interpreter made a serious mistake which ruined the negotiations.

.....

3. Sue does not speak French, so she does not understand the lyrics of this song.

.....

4. People who are able to communicate in Chinese get well-paid jobs.

.....

5. You will improve your English skills and you will pass your exam.

.....

**Task 7** Fill in the gaps with prepositions:

1. Much ..... the answer lies ..... the skill and training ..... interpreters.
2. .... most ..... history, interpretation was mainly done consecutively.
3. speakers and interpreters making pauses ..... allow each other ..... speak
4. after the advent ..... radio technology
5. .... pauses, those ..... the audience can choose the language
6. .... get used ..... the unnatural task ..... speaking while they listen
7. Students shadow speakers and repeat their every word ..... heard ..... the same language.
8. .... some point, a second language is introduced.

Now listen to the talk again to check your answers.

# The language of lying

(Noah Zandan)

[https://www.ted.com/talks/noah\\_zandan\\_the\\_language\\_of\\_lying](https://www.ted.com/talks/noah_zandan_the_language_of_lying)

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please answer the following questions in small groups:

- What is your definition of lying?
- Are you able to realise that someone is lying to you? How is it possible?
- In what situations do people usually lie?
- Are there any situations in which lying can be justified?
- Are there any groups or types of people who lie more often than others? Why?
- Do you know any politicians who were caught lying? Why did they do that?

## LISTENING

**Task 2** Listen to the talk and answer the following questions:

How many lies do we hear every day?

.....

What devices have been used in human history to detect lies?

.....

.....

Are they reliable?

.....

Why do people lie?

.....

Is the language of truth different from the language of lying?

.....

What technique is used to analyse the language of lies?

.....

What are the linguistic features of lies?

.....

What famous people are mentioned in the talk?

.....

In what everyday situations can detecting lies be helpful?

.....

### FURTHER DISCUSSION

**Task 3** Search the Internet and find some information to present the stories of the famous people mentioned in the talk.

- Why did they lie?
- Is it easier to lie in one's mother tongue or in a foreign language? Why?
- Do you remember any situation in which someone was lying to you? How did you feel then?

### VOCABULARY

**Task 4** The words and expressions in bold are used in the talk.

Try to figure out their meaning from the context. You can use a dictionary if necessary.

My phone **died**

These **allegations** are completely **unfounded**

The company was not aware of any **wrongdoing**

We spend much of our history **coming up** with ways to **detect** them

Most can be **fooled** with enough preparation

None is reliable enough to even be **admissible in court**

the underlying assumption that lying **spurs** physiological changes

they **disassociate** themselves from the lie

they tend to use longer and more **convoluted** sentences

using **factual sounding** details in order to **pad the lie**

**performance-enhancing** drugs

a pretty **long-winded** way to say

to **admit paternity**

## GRAMMAR

**Task 5** Write five sentences using modal verbs (a different one in each sentence) to give advice on correct communication without lies.

1. ....  
.....
2. ....  
.....
3. ....  
.....
4. ....  
.....
5. ....  
.....

**Task 6** Some words used in the lesson are given below. Please add the missing verbs, nouns or adjectives:

- |           |             |              |
|-----------|-------------|--------------|
| to .....  | – deception | – .....      |
| to detect | – .....     | – .....      |
| to .....  | – .....     | – admissible |
| to .....  | – .....     | – reliable   |
| to .....  | – denial    | – .....      |

**Task 7** Fill in the gaps with appropriate prefixes:

- |                 |                   |                |
|-----------------|-------------------|----------------|
| .....admissible | .....founded      | .....conscious |
| .....associate  | .....red          | .....necessary |
| .....reliable   | .....valued stock | .....relevant  |

**Task 8** Fill in the gaps with correct verb forms:

- He denied ..... (steal) the car.  
 She admitted ..... (lose) money in the lottery.  
 They confessed ..... (cheat) during the exam.  
 You promised ..... (go) to the cinema with me.  
 I refused ..... (work) on Sundays.  
 We decided ..... (fly) to Paris tomorrow.

# Do animals have language?

(Michele Bishop)

<https://ed.ted.com/lessons/do-animals-have-language-michele-bishop>

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please answer the following questions in pairs:

- How would you define human language?
- Do you know anything about animal communication?
- How do cats or dogs communicate?
- Can you communicate with animals? How?
- Do you think that animals can understand human language? Why/why not?

**Task 2** Prior to listening to the talk, please make sure that you are familiar with the names of animals mentioned in the lesson: a cuttlefish, a badger, a coyote, a hawk, a prairie dog, and an ape. You can look for their pictures online.

## LISTENING

**Task 3** Listen to the talk and answer the following questions:

How do animals communicate?

.....  
.....

Are these communication systems a language? Why/why not?

.....

What are the four qualities of language? Please explain what they are.

.....  
.....

What are the subjects of animal communication?

.....  
.....

Can any traits of language be found in animal communication systems?

.....

How does human language work?

.....  
.....

FURTHER DISCUSSION

**Task 4** Work in pairs or small groups. Try to find other examples of animal communication and present them to other pairs/groups.

- What is a common feature of prairie dogs and bees? How is it related to having a developed system of communication?
- What seems to be the most important aspect of animal existence?
- Try to find some information about Coco the gorilla.

VOCABULARY

**Task 5** The words and expressions in bold are used in the talk.  
Try to figure out their meaning from the context. You can use a dictionary if necessary.

Crabs **wave** their **claws** at each other  
.....  
They are healthy and ready to **mate**  
.....  
To act as **camouflage**  
.....  
Bees use the moves, **angle**, **duration**, and intensity of their **waggle dance**  
.....  
Some have even learned a modified **sign language**  
.....  
Coco **referred to** a beloved kitten  
.....  
**sophisticated** animal communication  
.....  
a **gestural** language  
.....  
their impressive abilities are still **outpaced** by the language skills of most three-year-old humans  
.....  
we can **craft** and understand complex sentences  
.....

**Task 6** Many animals live in groups or families. Find the names of these groups of animals:

fish –  
wolf –  
bee –  
bird –  
lion –  
ant –  
cow –  
whale –

### GRAMMAR

**Task 7** Some plural forms of names of animals are irregular. Check in a monolingual English dictionary what plural forms the following names of animals have:

goose –  
calf –  
deer –  
fish –  
trout –  
buffalo –  
mouse –  
louse –  
ox –  
sheep –  
swine –  
shrimp –  
moose –  
octopus –  
hippopotamus –  
wolf –

Some of these animal names remain invariable in the plural. What might be the reason?



## Part II

# **The animal world**

Why do cats act so weird?  
How do dogs “see” with their noses?  
Why elephants never forget  
Why the octopus brain is so extraordinary  
Sex determination: more complicated than you thought



# Why do cats act so weird?

(Tony Buffington)

[https://www.ted.com/talks/tony\\_buffington\\_why\\_do\\_cats\\_act\\_so\\_weird](https://www.ted.com/talks/tony_buffington_why_do_cats_act_so_weird)

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please answer the following questions in pairs:

- Do you like cats? Why/why not?
- How do they differ from dogs?
- Have you observed any weird cats' behaviour?
- Is there anything we could learn from cats?
- Why are they so popular nowadays?

**Task 2** In the talk the following verbs are used: to pounce, to bounce, to cram, to stalk, to claw, to chatter and to purr. Make sure you understand them.

## LISTENING

**Task 3** Listen to the talk and answer the following questions:

What is the attitude of people towards cats? How do we know that?

.....  
.....

What was cats' life like in the past?

.....  
.....

What cat abilities are particularly important in the wild?

.....  
.....

How are these abilities manifested nowadays?

.....  
.....

Why do cats purr?

.....  
.....

How do cats perceive human beings?

.....  
.....

FURTHER DISCUSSION

Task 4 Discuss the following issues in groups:

- In the talk, some explanation of weird cat behaviour is given. Is there still any type of their behaviour which you find incomprehensible?
- How do cats communicate with human beings and with each other?
- Can you understand the messages sent by cats? Is it more difficult to understand them than dogs?

VOCABULARY

Task 5 The words and expressions in bold are used in the talk.  
Try to figure out their meaning from the context. You can use a dictionary if necessary.

These somewhat strange **feline** behaviours, both amusing and **baffling**

.....  
Cats were **simultaneously solitary predators** of smaller animals and **prey** for larger **carnivores**

.....  
.....  
Cats climbed to high **vantage points** to **survey** the territory

.....  
Cats are **opportunistic**

.....  
Grizmo's **propensity** to **reach into** containers

.....  
She is **compelled** by the same **curiosity**

.....  
She is **ripping** these things **to shreds** and keeping her claws in **tip-top shape**

.....  
This is exactly what her **ancestors** did in order to survive

.....  
The cats which were the best at avoiding predators **thrived**

**Task 6** Cats appear in English in phrases and idioms. Check the meanings of the following examples provided by the *Cambridge Dictionary*:

A fat cat –

A cool cat –

A scaredy-cat –

Cat's eyes –

To bell the cat –

To be the cat's whiskers/pyjamas/meow –

To play cat and mouse with –

Curiosity killed the cat –

To fight like cat and dog –

To let the cat out of the bag –

Like a cat on a hot tin roof/on hot bricks –

Not enough room to swing a cat –

To put/set the cat among the pigeons –

Like the cat that got the cream –

While the cat's away, the mice will play –

Can you find any equivalent phrases in your mother tongue?

Are there any other examples typical of your language with the *cat* component?

### GRAMMAR + WRITING

**Task 7** Try to imagine your life as a cat. Describe it giving information on the food, everyday activities, interests, etc. Create at least a five-sentence description starting with

If I were I a cat .....

.....

.....

.....

.....

Would you like to be a cat for one day? Why/why not?

# How do dogs “see” with their noses?

(Alexandra Horowitz)

[https://www.ted.com/talks/alexandra\\_horowitz\\_how\\_do\\_dogs\\_see\\_with\\_their\\_noses](https://www.ted.com/talks/alexandra_horowitz_how_do_dogs_see_with_their_noses)

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please answer the following questions in pairs:

- What do you know about dogs’ perception of the world?
- How do dogs communicate with each other and with human beings?
- Do you understand dog communication?
- Why are dogs believed to be man’s best friends?

## LISTENING

**Task 2** Listen to the talk and answer the following questions:

How do dogs perceive the world?

.....

.....

.....

What is so particular about dog olfaction?

.....

.....

.....

What information can dogs collect by smell?

.....

.....

.....

## FURTHER DISCUSSION

**Task 3** Discuss the following issues in groups:

- How can dog incredible olfaction be used by people?
- Can dogs understand human language? Try to find some examples among dog owners.
- Have you ever tried to teach a dog any tricks? How did it work?
- Do you have any favourite breed or type of dog? Why is it your favourite one?

## VOCABULARY

**Task 4** The words and expressions in bold are used in the talk.

Try to figure out their meaning from the context. You can use a dictionary if necessary.

As your dog catches the first **hints** of fresh air

.....

Her nose’s **moist, spongy** outside helps **capture** any **scents** the breeze carries

.....

.....

The ability to smell separately with each **nostril**

.....

Highly specialized **olfactory receptor cells**

.....

Our **clumsy** way of breathing in and out through the same **passage**

.....

Dogs **exhale** through **slits** at the side of their nose

.....

**Swirls of air**

.....

Something to **process** the loads of information the nose **scoops up**

.....

This allows dogs to distinguish and remember a **staggering** variety of specific scents

.....

If you can smell a **spritz** of perfume in a small room, a dog would have no trouble smelling it in an enclosed stadium and distinguishing its ingredients, **to boot**

.....

Olfaction is more **primal** than other senses

.....

A dog’s perception is more **immediate** and **visceral** than ours

.....

They can **respond** with **kindness** to people **in distress**

.....

They can even **alert** us to invisible **threats ranging from** bombs **to** cancer

.....



# Why elephants never forget

(Alex Gendler)

<https://ed.ted.com/lessons/why-elephants-never-forget-alex-gendler>

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please answer the following questions in pairs:

- What animals are believed to be smart?
- What great skills do they have?
- What do you associate elephants with?
- What are possible threats to elephants?

## LISTENING

**Task 2** Listen to the talk and answer the following questions:

What proofs of good elephant memory are given?

.....

.....

.....

Why do they have such a good memory?

.....

.....

.....

What is so unusual about these animals?

.....

.....

.....

What problems do they suffer from?

.....

.....

## FURTHER DISCUSSION

**Task 3** Find some information on the Internet about elephants: their habitat, behaviour, etc. What is the most extraordinary information you found?

Please check the meaning of the terms *hippocampus* and *cerebral cortex*.

VOCABULARY

**Task 4** The words and expressions in bold are used in the talk.  
Try to figure out their meaning from the context. You can use a dictionary if necessary.

These **magnificent** animals are more than **giant** walking **hard drives**

.....

**Benevolent** creatures

.....

Unlike many **proverbs**, the one about elephant memory is scientifically **accurate**

.....

Elephants know every member of their **herd**, able to recognize as many as 30 **companions**

.....

**Encountering** other potentially **hostile** elephants

.....

They also remember and distinguish particular **cues** that signal danger

.....

Two elephants **rejoiced** when **crossing paths** 23 years later

.....

They recognized humans they have **bonded with** after decades apart

.....

Elephant memory **goes beyond responses** to **stimuli**

.....

The elephant **boasts** the largest brain of any land **mammal**

.....

An impressive **encephalization quotient**

.....

**Convergent** evolution has made it **remarkably** similar to the human brain

.....

It is the hippocampus, strongly **associated with** emotion, that **aids recollection** by **encoding** important experiences into **long-term memories**

.....

.....

A complex and adaptable **faculty** beyond **rote memorization**

.....

Clans with older **matriarchs** have higher **survival rates**

.....

To suffer from **post-traumatic stress disorder**

.....

They **tackle problems cooperatively**, sometimes even **outwitting** the researchers

.....

They've **grasped** basic arithmetic, **keeping track of** the relative amounts of fruit

.....

**Infrared rumbles** which can be heard kilometers away

.....

Elephants are the only non-human animals to **mourn** their dead and perform **burial rituals**

.....

One elephant **refused** to **set** a **log** down into a hole where a dog was sleeping

.....

They **stood guard** and gently **comforted** them with their **trunk**

.....

Elephant attacks **occurred** right after massive **poaching** or **cullings**, suggesting **deliberate revenge**

.....

They continue to suffer from **habitat destruction**, **ivory poaching** and **mistreatment in captivity**

.....

It is more important than ever to **ensure** that the "nature's greatest **masterpiece**" does not **vanish** from the world's **canvas**

.....

.....

**Task 5** Below there are two idioms with the word *elephant*. Please check their meaning:  
to have a memory like an elephant –  
there is an/the elephant in the room –

# Why the octopus brain is so extraordinary

(Cláudio L. Guerra)

[https://www.ted.com/talks/claudio\\_guerra\\_why\\_the\\_octopus\\_brain\\_is\\_so\\_extraordinary](https://www.ted.com/talks/claudio_guerra_why_the_octopus_brain_is_so_extraordinary)

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please answer the following questions in pairs:

- Are you familiar with the animal names *octopus*, *mollusk* and *cephalopod*?
- Make sure you know them before you listen to the lesson.
- What do you know about octopuses?
- Have you ever heard about their abilities?
- What animals are believed to be intelligent creatures?

## LISTENING

**Task 2** Listen to the talk and answer the following questions:

In what way are octopuses different from human beings?

.....

Do we have anything in common with them?

.....

Are octopuses intelligent creatures?

.....

What makes octopus intelligence so extraordinary?

.....

.....

How is their nervous system built? How does it function?

.....

.....

How is their body built?

.....

.....

What are the results of this body structure?

.....

.....

What practical applications does it have also for human beings?

.....

### FURTHER DISCUSSION

**Task 3** Find some information on the Internet about octopuses: their habitat, behaviour, etc. What is the most extraordinary information you found?

In the talk, it was stated that there is not “a plural noun we can all agree on”. Please check in a monolingual English dictionary all plural forms of *octopus*.

### VOCABULARY

**Task 4** The words and expressions in bold are used in the talk.

Try to figure out their meaning from the context. You can use a dictionary if necessary.

There are 200 or so **species** of octopuses

.....  
A brain to body **ratio**

.....  
These 500 million **neurons** are spread out in a **network** of **interconnected ganglia**

.....  
Two huge optic **lobes**

.....  
**Vertebrates** like us have a **rigid** skeleton (...) with **joints** that allow us to move

.....  
You can't **bend** your knee backwards, or bend your **forearm** in the middle

.....  
Allowing them to bend their **limbs** at any point and in any direction

.....  
**Shaping** their **tentacles** into any one of the **virtually limitless** number of possible **arrangements**

.....  
The arm neurons **pick up** the message and **jump into action** to **command** the movement

.....  
This gives it amazing **flexibility** and creativity when **facing** a new situation or problem

Escaping through a **maze**

Changing the **texture** and the color of its skin to **blend into the scenery**

Autonomously thinking **appendages** have inspired new research

Studying how intelligence can **arise** along such a **divergent** evolutionary path

Who knows (...) how they **process** the world around them

### GRAMMAR

**Task 5** Here are some extracts from the lesson. Please fill in the gaps with appropriate prepositions:

What could octopuses possibly have ..... common ..... us? After all, they don't have lungs, spines, or even a plural noun we can all agree ..... But what they do have is the ability ..... solve puzzles, learn ..... observation, and even use tools, just like some other animals we know.

And what makes octopus intelligence so amazing is that it comes ..... a biological structure completely different ..... ours. The 200 or so species octopuses are mollusks belonging ..... the order cephalopoda, Greek ..... head-feet.

Those heads contain impressively large brains, ..... a brain ..... body ratio similar ..... that ..... other intelligent animals, and a complex nervous system about as many neurons as that ..... a dog. But instead ..... being centralized ..... the brain, these 500 million neurons are spread ..... a network ..... interconnected ganglia organized ..... three basic structures.

Vertebrates like us have a rigid skeleton ..... support our bodies, ..... joints that allow us ..... move. But not all types ..... movement are allowed. You can't bend your knee backwards, or bend your forearm ..... the middle, for example. Cephalopods, the other hand, have no bones at all, allowing them ..... bend their limbs ..... any point and ..... any direction.

So shaping their tentacles ..... any one ..... the virtually limitless number ..... possible arrangements is unlike anything we are used .....

Now listen to the talk again and check your answers.

# Sex determination: more complicated than you thought

(Aaron Reedy)

[https://www.ted.com/talks/aaron\\_reedy\\_sex\\_determination\\_more\\_complicated\\_than\\_you\\_thought](https://www.ted.com/talks/aaron_reedy_sex_determination_more_complicated_than_you_thought)

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please answer the following questions in pairs:

- What do you know about human biological sex determination?
- Have you ever heard about other types of sex determination in animals?
- Please check the meaning of the following terms: *chromosomes*, *haploid*, *diploid*, *embryo*.

## LISTENING

**Task 2** Listen to the talk and answer the following questions:

What is the most frequent question asked to pregnant women?

.....

How is sex determined in human beings?

.....

How is sex determined in birds?

.....

How is sex determined in ants?

.....

.....

How is sex determined in turtles?

.....

.....

How is sex determined in spoonworms?

.....

.....

How is sex determined in some species of fish?

.....

.....

What is so particular about some types of lizards?

.....

### FURTHER DISCUSSION

**Task 3** Discuss these issues in groups:

- Why, in your opinion, people are so interested in the sex of a baby to be born?
- What information delivered in the lesson do you find the most intriguing? Why?
- Can you think of any sex-based differences in animals?

### VOCABULARY

**Task 4** The words and expressions in bold are used in the talk.

Try to figure out their meaning from the context. You can use a dictionary if necessary.

The first question people ask, **almost without fail**

.....  
There are some **assumptions behind** this question that we **take for granted**

.....  
The answer depends on the sex **determination** system that has **evolved** for our **species**

.....  
**Mammals** have a pair of sex chromosomes, one **passed down** from mom and one from dad

.....  
In an **ant colony**, there are dramatic **divisions of labour**

.....  
The queen will **mate** and then store sperm from the **males**

.....  
If she **lays an egg** without **fertilizing** it

.....  
Who **came up** with this **mnemonic**, but (...) they are all **hot chicks** and **cool dudes**

.....  
The question isn't **settled** until even later in life

.....  
It is a matter of where a larva happens to **randomly** fall on the **sea floor**

.....  
These eggs **hatch out** female **clones** of themselves

.....

### Names of males and females and their offspring

**Task 5** In the table below you can find names of animals, please fill in the gaps with names for males, females and offspring of the species given. In some cases more than one answer is possible.

Species	Male	Female	Offspring
Dog	Male dog		
Cat		Female cat	
Horse			
Pig			
Cow		Cow	
Sheep			
Hen		Hen	
Bee		Bee	XXXXXXXXXXXX
Goose		Goose	
Duck		Female duck	
Swan			
Deer			
Fox	Male fox		Young fox

Now answer additional questions:

- What do we call a young seal or otter?
- What is a joey?
- What is a colt?
- What is spawn?
- What is a heifer?
- What is a leveret?
- What is a nestling?
- What do we call a group of dogs or cats born at the same time from the same mother?
- What is a hatchling?
- What is a peachick (not to confuse with chickpea)?



## Part III

# **Medical issues**

How mucus keeps us healthy  
Why are some people left-handed?  
How do cigarettes affect the body?  
The benefits of good posture  
Learning from smallpox: how to eradicate a disease?



# How mucus keeps us healthy

(Katharina Ribbeck)

<https://ed.ted.com/lessons/how-mucus-keeps-us-healthy-katharina-ribbeck>

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please answer the following questions in pairs:

- Are you familiar with the term *mucus*? If not, please check its meaning as it is the key term in this lesson.
- What is the most annoying symptom of a cold for you? Why?
- Do you have any remedy to fight a cold?

## LISTENING

**Task 2** Listen to the talk and answer the following questions:

How much mucus does our body produce every day?

.....

Where in the human body can we find mucus?

.....

What role does it play?

.....

.....

What are its components?

.....

.....

How does mucus work? Try to explain the mechanisms described.

.....

.....

What happens when we are ill?

.....

## FURTHER DISCUSSION

**Task 3** Find some more information on the Internet on the role of mucus when one is ill. Try to find some traditional ways of fighting a cold. Describe them.

VOCABULARY

**Task 4** The words and expressions in bold are used in the talk.  
Try to figure out their meaning from the context. You can use a dictionary if necessary.

If you've got a cold, **mucus is hard to miss**

.....

All the wet surfaces of your body get a **liberal coating**

.....

They are known as **mucus membranes**

.....

It keeps your delicate **tissues** from **drying out** and **cracking**

.....

It would **expose** them **to** infection

.....

It **lubricates** your eyes so you can **blink**

.....

It protects your stomach **lining** from acid

.....

It **houses** and keeps your body's **trillions** of bacterial **inhabitants** (...) **under control**

.....

A **key component** of mucus **versatility**

.....

They are **essential** for giving mucus its **slippery feel**

.....

The (...) sugar chains help mucin **dissolve** in your body's **watery fluids**

.....

It's continuously produced to clear them from the **respiratory track** like a **slimy conveyor belt**

.....

This keeps bacteria from getting a **solid purchase** on delicate lung tissue or **making it to the bloodstream**

.....

They **cluster** into slimy **growths** called biofilms

.....

Mucus contains **antibodies**

.....

The body **ramps up** mucus production to try to quickly **flush out** the **offenders**

.....

The **immune system floods** your mucus with extra **white blood cells**

.....

This **multi-pronged** approach to bacterial **management**

.....

**Suppressing** harmful **inflammation**

.....

To **domesticate** a **teeming** bacterial population

.....

### GRAMMAR

**Task 5** In English, there are some irregular plural noun forms. *Bacteria* is one of them as it follows the Latin pattern. Below you can find nouns originating from Latin and Greek which have irregular plural forms (some of them may also have the regular plural ending -s). Fill in the gaps with appropriate singular (left column) or plural (right column) forms:

.....	– bacteria
.....	– data
.....	– media
curriculum	– .....
appendix	– .....
index	– .....
phenomenon	– .....
.....	– criteria
analysis	– .....
crisis	– .....
thesis	– .....

(based on: <https://www.grammarly.com/blog/irregular-plural-nouns/>)

# Why are some people left-handed?

(Daniel M. Abrams)

[https://www.ted.com/talks/daniel\\_m\\_abrams\\_why\\_are\\_some\\_people\\_left\\_handed](https://www.ted.com/talks/daniel_m_abrams_why_are_some_people_left_handed)

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please answer the following questions in pairs:

- Do you know any left-handed person? Do they have any issues with that?
- Have you ever tried to use the non-dominant hand? How was it?
- Do you know any famous left-handed people?

## LISTENING

**Task 2** Listen to the talk and answer the following questions:

What used to happen, and sometimes still does, to left-handed children?

.....

What is the percentage of lefties?

.....

Is left-handedness a recent phenomenon? How do we know that?

.....

What factors determine handedness?

.....

.....

When is left-handedness an advantage? Why?

.....

.....

When is it a disadvantage? Why?

.....

.....

## FURTHER DISCUSSION

**Task 3** Discuss the following issues in groups:

- Can you explain the reasons for the treatment of left-handed children described?
- Do left-handed people have any particular skills?
- Try to find some information about the relationship between brain lateralization and handedness.

## VOCABULARY

**Task 4** The words and expressions in bold are used in the talk.

Try to figure out their meaning from the context. You can use a dictionary if necessary.

The **associated** differences in arm length and bone **density**

.....

It can be **predicted** even before birth based on the **fetus's** position in the **womb**

.....

This happens as often as it does with any other **sibling** pair

.....

The chances of being right or left-handed **are determined by** the **handedness** of the parents in surprisingly **consistent ratios**

.....

.....

Handedness seems to be determined by a **roll of the dice**, but **the odds are set** by your genes

.....

About 50% of **top hitters** in baseball have been left-handed

.....

It was no longer a rare **asset**

.....

Young potential golfers can more easily find a set of right-handed **clubs**

.....

The **persistence** of lefties as a small but stable **minority** reflects an **equilibrium**

.....

.....

The **skewed distribution** of **pawedness** in **cooperative** animals

.....

.....

The answers to some **puzzles** of early human evolution **are already in our hands**

.....

### WORD FORMATION

**Task 5** Derivation is a process of creating new words with the use of prefixes and suffixes.

Below you can find some examples of words which can serve as stems for derivatives. Please fill in the gaps with appropriate noun forms created from the verbs and adjectives provided. You can use a dictionary if necessary.

dense – .....	rich – .....
able – .....	minor – .....
to hit – .....	to develop – .....
to persist – .....	to predict – .....
mature – .....	poor – .....

### VOCABULARY

**Task 6** In English, there are some idioms with the word *hand*. Below you can find some examples provided by the *Cambridge Dictionary* online.

Make sure that you are familiar with their meaning:

- by hand (2 answers possible) –
- to give/lend someone a hand –
- to strengthen someone's hand –
- to lay a hand on someone –
- to go hand in hand with sth –
- to keep a firm hand on sth –
- an iron hand/fist in a velvet glove –
- to have someone eating out of your hand –
- to know sth like the back of your hand –
- in the palm of your hand –

What does the hand represent according to these idioms?

Try to find idioms with the hand in your mother tongue.

Can you find any equivalents in form and/or meaning?

# How do cigarettes affect the body?

(Krishna Sudhir)

[https://www.ted.com/talks/krishna\\_sudhir\\_how\\_do\\_cigarettes\\_affect\\_the\\_body](https://www.ted.com/talks/krishna_sudhir_how_do_cigarettes_affect_the_body)

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please answer the following questions in pairs:

- Why is smoking harmful? What damage can it cause to the human body?
- Why is it difficult to quit smoking?
- Do you know anyone who succeeded in quitting smoking? What method did this person use?

## LISTENING

**Task 2** Listen to the talk and answer the following questions:

How does smoking affect the body?

.....

.....

.....

.....

What are the advantages of quitting smoking?

.....

.....

.....

.....

What tools are at our disposal to facilitate the process?

.....

.....

.....

## FURTHER DISCUSSION

**Task 3** Please find statistics on nicotine-related deaths in your country and worldwide and answer the following questions:

- Why do some people still smoke knowing what consequences this addiction may have?
- What are popular associations with cigarettes? Are they positive or negative? Why?
- Why smoking may seem attractive to young people?

### VOCABULARY

**Task 4** The words and expressions in bold are used in the talk.

Try to figure out their meaning from the context. You can use a dictionary if necessary.

With each **inhalation**, smoke brings its more than 5000 chemical substances into contact with the body's **tissues**.

.....  
**Tar**, a black, **resinous** material, begins to **coat** the teeth and **gums**, damaging tooth **enamel** and eventually causing **decay**.

.....  
.....  
Inside the **airways** and lungs, smoke increases the **likelihood** of infections, as well as chronic diseases like **bronchitis** and **emphysema**

.....  
.....  
A toxic gas called **carbon monoxide** crosses that **membrane** into the blood, **binding** to hemoglobin and **displacing** the oxygen

.....  
.....  
Smoking can lead to **oxygen deprivation** and **shortness of breath**

.....  
.....  
The **bloodstream** carries a stimulant (...) to the brain, **triggering** the **release** of dopamine and other **neurotransmitters**

.....  
.....  
Endorphins that create the **pleasurable sensations** which make smoking **highly addictive**

.....  
.....  
Nicotine and other chemicals (...) **simultaneously** cause **constriction** of **blood vessels** and damage their delicate (...) **lining**, **restricting blood flow**

.....  
.....  
These **vascular** effects (...) **enhance blood platelet stickiness**

**Clots** will form and **trigger** heart attacks and **strokes**

Ingredients (...) may **disrupt** the process of DNA repair, thus **compromising** the body's ability to fight many cancers

For those who quit smoking, there is a huge positive **upside**

**Blood pressure** and **heart rates** normalize.

by the one-year **anniversary** of quitting, heart disease risk **plummets** to half

**skin patches**, **lozenges**, and sprays may help **wean** smokers **off** cigarettes

**counselling** and **support groups** (...) and **moderate**-intensity exercise also help

### PHRASAL VERBS I

**Task 5** Phrasal verbs are an important part of English, especially its informal register, so a learner of English should learn them and use them.

Below you can find definitions to which you have to match appropriate phrasal verbs: to carry on, to come up with, to get across, to get down to, to give up, to pay back, to take after, to think up, to turn down.

to stop doing sth – to .....

to continue doing sth – to .....

to look like one's parent or grandparent or another older relative – to .....

to begin to do sth seriously (e.g. work) – .....

to suggest a solution or plan – .....

to communicate idea/message successfully – .....

to take revenge – .....

to invent sth – .....

to reject an offer – .....

to meet unexpectedly – .....

Now, please choose five of the phrasal verbs above and create your own sentences with them.

# The benefits of good posture

(Murat Dalkilinc)

[https://www.ted.com/talks/murat\\_dalkilinc\\_the\\_benefits\\_of\\_good\\_posture](https://www.ted.com/talks/murat_dalkilinc_the_benefits_of_good_posture)

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please answer the following questions in groups:

- Do you pay attention to the position of your body when you are standing or sitting?
- Why do so many people suffer from medical issues related to bad posture?
- Can you give any tips on how to look after posture?

## LISTENING

**Task 2** Listen to the talk and answer the following questions:

Is correct posture important? Why?

.....  
.....

What kinds of stress does our body experience?

.....  
.....

What happens if one's posture is inappropriate?

.....  
.....

Describe correct posture.

.....  
.....

What can we do to have good posture?

.....  
.....

## FURTHER DISCUSSION

**Task 3** Try to find some information on the incorrect posture in children and its reasons. Then, answer the following questions:

- Why is today's lifestyle unhealthy for our bodies?
- Have you ever experienced any of the problems mentioned?
- If yes, what can you do to improve your situation?

## VOCABULARY

**Task 4** The words and expressions in bold are used in the talk.

Try to figure out their meaning from the context. You can use a dictionary if necessary.

Has anyone **scolded** you for **slouching** at a family dinner?

.....

.....  
itting in an **awkward** position (...) and **gravity**

.....

Some muscles will become tight and **inflexible**. Others will be **inhibited**.

.....

These dysfunctional adaptations **impair** your body's ability to deal with the forces on it.

.....

Poor posture **inflicts** extra **wear and tear** on your **joints** and **ligaments**

.....

.....

Researchers have **linked** poor posture to **scoliosis**, **tension headaches**, and **back pain**, though it isn't the **exclusive** cause of any of them

.....

.....

Posture can even influence your emotional state and your **sensitivity to pain**

.....

When you look at the **spine** from the front or the back, all 33 **vertebrae** should appear **stacked** in a straight line

.....

To move efficiently with the least amount of **fatigue** and muscle **strain**

.....

Your neck should be **vertical**, not **tilted** forward

.....

Your shoulders should be relaxed with your arms close to your **trunk**

.....

Wear shoes with low **heels** and good **arch support**, and use a **headset** for phone calls

.....

Being **stationary** for long periods can be worse than regular movement with bad posture

.....

GRAMMAR + WRITING

**Task 5** To give advice, one can use the imperative mode (*Do sth!*), the second conditional (*If I were you, I would...*), impersonal phrases (*It is necessary to*) as well as phrases (*Why don't you...*) or opinions with modal verbs (*I think you should do...*) and subjunctive (*I suggest that you do...*). Create at least five sentences in which you will give advice to your friend who lives an unhealthy lifestyle.

.....

.....

.....

.....

.....

PHRASAL VERBS II

**Task 6** In the talk, the verb to scold was used. Can you find a phrasal verb with the same meaning?

Now, match the phrasal verbs with the meanings given below:

to break down, to call off, to carry out, to give away, to let down, to look after, to look up to, to take over, to tell off, to think over

- to scold – .....
- to disappoint – .....
- to cancel (e.g. a meeting) – .....
- to donate, give for free – .....
- to admire sb – .....
- to consider – .....
- to take care of sb – .....
- to stop working – .....
- to gain control of – .....
- to complete a plan – .....

Now, please choose five of the phrasal verbs above and create your own sentences with them.

# Learning from smallpox: how to eradicate a disease?

(Julie Garon & Walter A. Orenstein)

<https://ed.ted.com/lessons/learning-from-smallpox-how-to-eradicate-a-disease-julie-garon-and-walter-a-orenstein>

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please answer the following questions in pairs:

- Have you ever heard of any diseases which were eradicated, i.e., eliminated completely?
- Can you name any particularly fatal diseases?
- What are possible ways to eliminate or at least restrict them?

## LISTENING

**Task 2** Listen to the talk and answer the following questions:

How did people cure diseases in the past?

.....  
.....

What happened in the 19th century?

.....

What happened in the 20th century?

.....

What is the history of smallpox?

.....

.....

How many people died of smallpox in the 20th century?

.....

What was done to prevent smallpox from spreading?

.....

.....

Why was it possible to eradicate it?

.....

.....

What other diseases can be eradicated as well?

.....

### FURTHER DISCUSSION

**Task 3** Try to find some information on the smallpox in Poland in the 1970s. What was done to fight it?

Find some information about Edward Jenner and Louis Pasteur and their work.

What diseases can be prevented by vaccination?

Find information on the bubonic plague and the number of its victims in Europe throughout history. Can you find any traces of this epidemic in the place where you live?

### VOCABULARY

**Task 4** The words and expressions in bold are used in the talk.

Try to figure out their meaning from the context. You can use a dictionary if necessary.

The rise of vaccination in the 19th century **enhanced** the **potential** to prevent people from **contracting** illnesses in the first place

.....  
**Smallpox emerged** in human populations thousands of years ago as a **contagious** virus that **spread rapidly primarily** through close, face-to-face contact causing (...) **rashes**

.....  
Often left **survivors** with **life-long disfiguring** scars

.....  
Several cultures had religious **deities** specifically **dedicated** to it

.....  
With the **effective deployment** of vaccination, the number of **cases** began to decrease

.....  
The spread of the disease could be **halted**

.....  
Smallpox could only survive in human **hosts**

.....  
Vaccinating all of an infected person's (...) **contacts** would stop the virus dead **in its tracks**

.....  
This strategy has succeeded in **ridding** most **industrialized** countries **from** disease

Eradicating it worldwide was **within reach**

.....

This was not an easy process (...) in places suffering from poor infrastructure or **civil wars**

.....

In India, one of the last **strongholds** of the disease

.....

Through this **unprecedented** worldwide effort (...) smallpox was (...) **declared** eradicated

.....

**Pathogenes** like ebola or the **bubonic plague** can survive in animal **carriers**

.....

The bacteria that cause **tetanus** can even live in the **soil**

.....

Several other pathogens can be next **in line**

.....

Disease eradication is the **ultimate** gift we can give to everyone alive today as well as all future generations of humanity

.....

## GRAMMAR

**Task 5** The passive voice is used when the agent of the action is either unknown or unimportant or just represents people as a whole; it is often used in formal language. The sentences below are in the active voice, please transform them into the passive voice:

1. Maria bought that car two years ago.

.....

2. The police have arrested Jim.

.....

3. Sue will send the letter tomorrow.

.....

4. They knew the winner before they announced the results.

.....

5. We can find this recipe in that old cookery book.

.....



## Part IV

# Psychology and well-being

How stress affects our body  
How stress affects our brain  
How sugar affects the brain  
What would happen if you didn't sleep?  
Three tips to boost your confidence



# How stress affects our body

(Sharon Horesh Bergquist)

[https://www.ted.com/talks/sharon\\_horesh\\_bergquist\\_how\\_stress\\_affects\\_your\\_body](https://www.ted.com/talks/sharon_horesh_bergquist_how_stress_affects_your_body)

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please answer the following questions in pairs:

- In what situations do you feel stressed?
- What symptoms of stress do you experience?
- Is there any remedy which could reduce stress?

## LISTENING

**Task 2** Listen to the talk and answer the following questions:

When is stress dangerous?

.....  
.....

What happens then?

.....  
.....

What are the negative consequences of stress for our health?

.....  
.....

What should we do to live longer?

.....  
.....

## FURTHER DISCUSSION

**Task 3** Discuss the following issues in groups:

- How is it possible that nowadays people are more stressed than in the past when life was much more difficult and dangerous?
- What could we do to feel less stressed nowadays?
- Find some more information on the Internet about the impact of stress on our body. What medical issues can it cause?
- Do you see any relation between the level of stress we experience and the amount of time we spend online?

VOCABULARY

**Task 4** The words and expressions in bold are used in the talk.  
Try to figure out their meaning from the context. You can use a dictionary if necessary.

**Cramming** for a test? Stress is a feeling we all experience when we are **challenged** or **overwhelmed**.

.....  
Stress is a **hardwired** physical **response**.

.....  
Your **adrenal gland** releases the stress hormones

.....  
As these hormones travel through your **bloodstream**, they easily reach your **blood vessels**

.....  
Adrenaline (...) raises your **blood pressure**, over time causing **hypertension**

.....  
Scientists now know that this is an early step in **triggering** the process of **atherosclerosis** or cholesterol **plaque** build up in your **arteries**

.....  
These changes increase your chances of a **heart attack** or **stroke**

.....  
This brain-gut connection can disturb the natural rhythmic **contractions** that move food through your **gut**, leading to **irritable bowel syndrome** and can increase your gut sensitivity to acid, making you more likely to feel **heartburn**

.....  
Speaking of **digestion**, does chronic stress affect your **waistline**?

.....  
It tells your body to **replenish** energy **stores** with energy-dense foods and **carbs**, causing you to **crave comfort foods**

.....  
.....

Chronic stress can **dampen** the function of some **immune cells**, make you more **susceptible** to infections, and slow the **rate** you **heal**

.....

.....

You may have to **curb** your chronic stress

.....

Chronic stress has even more ways it can **sabotage** your health, including **acne**, **hair loss**, sexual dysfunction, headaches, **muscle tension**, difficulty concentrating, **fatigue**, and **irritability**

.....

.....

If you can **view** those situations as challenges you can control and **master**, rather than as threats which are **insurmountable**

.....

You will perform better **in the short run** and stay healthy **in the long run**

.....

### SPEAKING + WRITING

**Task 5** Think of one of the exams you will need to take during your University studies, one which you perceive as particularly stressful. First, in two-three sentences describe your feelings related to this exam and your worries or doubts about a favorable result. What are you really afraid of?

.....

.....

.....

**Task 6** Now, prepare a list of five things which you could do to reduce the amount of stress you feel.

1. ....
2. ....
3. ....
4. ....
5. ....

# How stress affects our brain

(Madhumita Murgia)

[https://www.ted.com/talks/madhumita\\_murgia\\_how\\_stress\\_affects\\_your\\_brain](https://www.ted.com/talks/madhumita_murgia_how_stress_affects_your_brain)

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please answer the following questions in pairs:

- In what situations do you feel stressed? Why?
- Do you notice any influence of stress on the functioning of your brain?
- Do you learn or work better when you are stressed or relaxed?

**Task 2** In the talk, there are some medical terms used such as the *hypothalamus*, *pituitary gland*, *hippocampus*; in order to better understand the idea please check what these are prior to listening to the talk.

## LISTENING

**Task 3** Listen to the talk and answer the following questions:

What are the symptoms of being stressed out?

.....

.....

Can stress be positive?

.....

.....

What are the effects of negative chronic stress?

.....

.....

What happens in a stressful situation?

.....

.....

Is stress inherited? What experiment is mentioned?

.....

.....

How can we avoid the negative consequences of stress?

.....

.....

## FURTHER DISCUSSION

**Task 4** Discuss the following issues in groups:

- What are your tips to reduce stress?
- Which one is worse for you: psychological stress or physical tiredness?

## VOCABULARY

**Task 5** The words and expressions in bold are used in the talk.

Try to figure out their meaning from the context. You can use a dictionary if necessary.

Are you sleeping **restlessly**, feeling **irritable** and **moody**, forgetting little things and feeling **overwhelmed** and isolated

.....  
You're probably just **stressed out**

.....  
It can be **handy** for a **burst** of extra energy and focus

.....  
A hormone called cortisol which **primes** your body **for instant** reaction

.....  
High levels of cortisol over long periods of time **wreak havoc** on your brain

.....  
Electric signals in your hippocampus **deteriorate**

.....  
The hippocampus also **inhibits** the activity of the HPA **axis**

.....  
Cortisol can **literally** cause your brain to **shrink** in size

.....  
Chronic stress might (...) also **set the stage for** more serious mental problems

.....  
The amount of **nurturing** a mother rat **provides** its newborn baby

.....  
The **pups** of nurturing mums **turned out** less **sensitive** to stress

.....  
Cortisol **receptors**, which stick to cortisol and **dampen** the stress **response**

.....

The pups of **negligent** mums had the opposite **outcome**

These changes can be **reversed** if the moms are **swapped**

The epigenetic changes (...) were **passed down** to many generations of rats after her

The results of these actions were **inheritable**

There are many ways to **reverse** what cortisol does to your stressed brain

Don't feel **defeated** by the **pressures** of daily life

VOCABULARY – WORD FORMATION

**Task 6** Fill in the table with appropriate adjectives, verbs and nouns.  
Use a dictionary if necessary. Sometimes more than one form is possible.

Adjective	Verb	Noun
	dampen	
inheritable		
negligent		
nurturing		
sensitive		
irritable		
	inhibit	
	reduce	
	reverse	
		change
		response
isolated		
		energy
		reaction

# How sugar affects the brain

(Nicole Avena)

[https://www.ted.com/talks/nicole\\_avena\\_how\\_sugar\\_affects\\_the\\_brain](https://www.ted.com/talks/nicole_avena_how_sugar_affects_the_brain)

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please answer the following questions in pairs:

- Have you ever heard about addiction to sugar?
- Why can it be as dangerous as other addictions, if not more?
- Have you ever tried to limit the amount of sugar you consume? How was it?

**Task 2** In the talk, there are some medical terms used such as the *brain stem*, *cerebral cortex*, *neurotransmitters*. In order to better understand the idea please check what these are prior to listening to the talk.

## LISTENING

**Task 3** Listen to the talk and answer the following questions:

Why is it so difficult to resist sugar?

.....  
.....

In what types of food can sugar be found?

.....  
.....

What happens when we consume sugar?

.....  
.....

Is this reaction typical of food only?

.....  
.....

Why do we pay special attention to new foods?

.....

## FURTHER DISCUSSION

**Task 4** Find information on the Internet about sugar content in some popular products, e.g., ketchup. What could you do to avoid excessive consumption of sugar?

VOCABULARY

**Task 5** The words and expressions in bold are used in the talk.  
Try to figure out their meaning from the context. You can use a dictionary if necessary.

Picture warm, **gooey** cookies, **crunchy** candies, **velvety** cakes, **waffle cones** piled high with ice cream.

.....  
.....

Is your mouth **watering**? Are you **craving** dessert?

.....  
Sugar is a general term used to describe a class of **molecules** called **carbohydrates**

.....  
Glucose, fructose (...) and **starch** are all forms of sugar. So are (...) **raw sugar** and honey.

.....  
The sugars it contains activate the sweet-taste **receptors**, part of the **taste buds** on the tongue

.....  
These receptors send a signal up to the **brain stem**, and from there, it **forks off** into many areas of the **forebrain**, one of which is the **cerebral cortex**.

.....  
.....

This **reward system** is a series of electrical and chemical **pathways**

.....  
**Overactivating** this reward system **kickstarts** a series of **unfortunate** events

.....  
There are many dopamine receptors in the **forebrain**, but they're not **evenly distributed**.

.....  
Certain areas contain **dense clusters** of receptors, and these dopamine **hot spots** are a part of our reward system

.....  
Drugs like alcohol, nicotine, or heroin send dopamine into **overdrive**, leading some people to constantly **seek that high**, in other words, to be addicted

.....

Dopamine levels **spike** in the reward system hot spots.

.....  
If you eat that same dish many days **in a row**, dopamine levels will spike less and less, eventually **levelling out**

.....  
The more **variety** you have in your diet, the more likely you are to get all the **nutrients**

.....  
It's one reason people seem to be **hooked on** sugary foods.

.....  
It kickstarts a domino effect in the brain that **sparks** a rewarding feeling

.....  
A **wedge** of cake once in a while won't hurt you

## GRAMMAR

**Task 6** Conditional sentences are used to indicate a possible result which depends on a condition which has to be met to bring this result. Depending on the time frame of these actions (past, present, future) and the fact of being either real or imaginary, different types of conditional sentences are used. To present general laws and truths, usually, the so-called zero conditional is used in which both the condition and the result are real. The first conditional (if + present tense / future tense) is used for real situations which will have their results in the future.

Think about five general truths (expressed with the zero conditional) and five more precise situations (expressed with the first conditional) related to health and well-being and write them in the space provided:

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

# What would happen if you didn't sleep?

(Claudia Aguirre)

[https://www.ted.com/talks/claudia\\_aguirre\\_what\\_would\\_happen\\_if\\_you\\_didn\\_t\\_sleep](https://www.ted.com/talks/claudia_aguirre_what_would_happen_if_you_didn_t_sleep)

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please answer the following questions in pairs:

- How much sleep do you need?
- Do you sleep enough? Why? Why not?
- How do you feel after a sleepless night?

## LISTENING

**Task 2** Listen to the talk and answer the following questions:

What did Randy Gardner do in 1965?

.....

What happened to him?

.....

.....

What are the possible consequences of sleep deprivation?

.....

.....

How much sleep do we need?

.....

What happens when we sleep?

.....

.....

How many Americans are regularly sleep-deprived?

.....

What happened in 2014?

.....

What is fatal familial insomnia? What are its consequences?

.....

.....

Why does sleep deprivation cause so much suffering?

.....

### FURTHER DISCUSSION

**Task 3** Discuss the following issues in groups:

- Why are so many people sleep-deprived?
- Do you know any ways to improve the quality of sleep?
- What should we avoid if we want to sleep well?

### VOCABULARY

**Task 4** The words and expressions in bold are used in the talk.

Try to figure out their meaning from the context. You can use a dictionary if necessary.

By day three, Gardner was **moody** and **uncoordinated**.

.....  
Although Gardner **recovered** without **long-term** (...) damage (...), losing **shuteye** can result in hormonal **imbalance**, illness and (...) death

.....  
The rise in **sleep-inducing** chemicals (...) sends us into a light **doze**

.....  
This non-REM sleep is when DNA is repaired and our bodies **replenish** themselves

.....  
This isn't just a **minor inconvenience**

.....  
His **untimely** death was **due to** a **stroke**

.....  
This **condition** known as **fatal familial insomnia**, places the body in a **nightmarish** state of **wakefulness**, forbidding it from entering the **sanctuary** of sleep

.....  
Scientists think the answer **lies in** the **accumulation of waste products** in the brain

.....  
As adenosine builds up, it increases **the urge to** sleep

.....  
It works by using **cerebrospinal fluid** to **flush away** toxic **byproducts**

While scientists continue exploring the **restorative mechanisms** behind sleep, we can be sure that **slipping** into **slumber** is a necessity if we want to maintain our health and our **sanity**

.....

.....

**GRAMMAR + SPEAKING**

**Task 5** In the previous lesson, the zero conditional as well as the first conditional were used. In this lesson's title the second conditional (if + past / would) is used to introduce an imaginary present situation. This hypothetical situation appears in our imagination as we try to imagine possible results of hypothetical conditions. Below is a list of conditions, try to imagine what results you would experience if they were fulfilled:

speak Chinese, be the president of the USA, meet my idol, be able to do any job you wish, know the answer to all difficult questions, have a solution to the major world problems.

Now express your ideas in the space provided using the second conditional.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Now, present your ideas to your classmates and support them with arguments to justify your choices.

Compare your ideas with the proposals of your classmates. Can you see any similarities to your ideas?

# Three tips to boost your confidence

(Amy Adkins)

[https://www.ted.com/talks/amy\\_adkins\\_3\\_tips\\_to\\_boost\\_your\\_confidence](https://www.ted.com/talks/amy_adkins_3_tips_to_boost_your_confidence)

## WARM-UP ACTIVITY

**Task 1** Before listening to the talk, please answer the following questions in pairs:

- What is self-confidence to you?
- Are there any factors determining the level of self-confidence one has?
- What situations may undermine one's self-confidence?

## LISTENING

**Task 2** Listen to the talk and answer the following questions:

What is confidence?

.....  
.....

What are the factors determining self-confidence?

.....  
.....  
.....

What tips are given in the lesson?

.....  
.....

Are these tips scientifically proven?

.....

## FURTHER DISCUSSION

**Task 3** Discuss the following issues in groups:

- What could people do to increase their level of self-confidence?
- Why is self-confidence important in life?
- How can we teach it to children? Is it possible at all?
- Can you name any groups of people who have a higher level of self-confidence than the others? How is that determined?

VOCABULARY

**Task 4** The words and expressions in bold are used in the talk.  
Try to figure out their meaning from the context. You can use a dictionary if necessary.

When **faced with** a big challenge where potential **failure** seems to **lurk** at every corner

You are valuable, **worthwhile** and capable

**Empowered** by these, act courageously to face a challenge **head-on**

There are several **factors** that **impact** confidence

How you think about and **respond to** challenges and setbacks

It isn't possible to completely **untangle** these three factors

**Tip one:** a quick **fix**

There are a few **tricks** that can give you an **immediate** confidence **boost in the short term**

You can even **strike a powerful pose** or give yourself a **pep talk**

If you have a **fixed mindset**

Doing better **in the face of** challenges

They learn how to try different strategies, ask others for advice and **persevere**

Give yourself a pep talk, stand up, and **go for it**

### SPEAKING

**Task 5** To give advice you can use the second conditional (if I were you, I would ...), suggestions (let's do ...) or simply a question (why don't you ..., what do you think about ...). You can also use adjectives, i.e. it is/would be good/advisable/reasonable to ... or use a modal verb (you should ...).

Work in pairs. Choose a real or imaginary person (a celebrity, a character in a book or film, etc.) who seems to be lacking self-confidence. Think about four to five arguments to persuade this person to feel more confident. You can write down your ideas in the space provided:

.....

.....

.....

.....

.....

Then, play out this dialogue in which one of you will be the person and the other one – their coach.

Now, think about tips which do not seem to work well. Provide some examples and explain why they are not so useful.

.....

.....

.....

.....

Can you think of any universal useful tips to give to an insecure person? If possible, please give some examples of such tips.

.....

.....

.....

To sum it all up, what factor seems to play a major role in determining one's self-confidence? Is it genes, upbringing, or maybe something else?

Please justify your opinion.



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