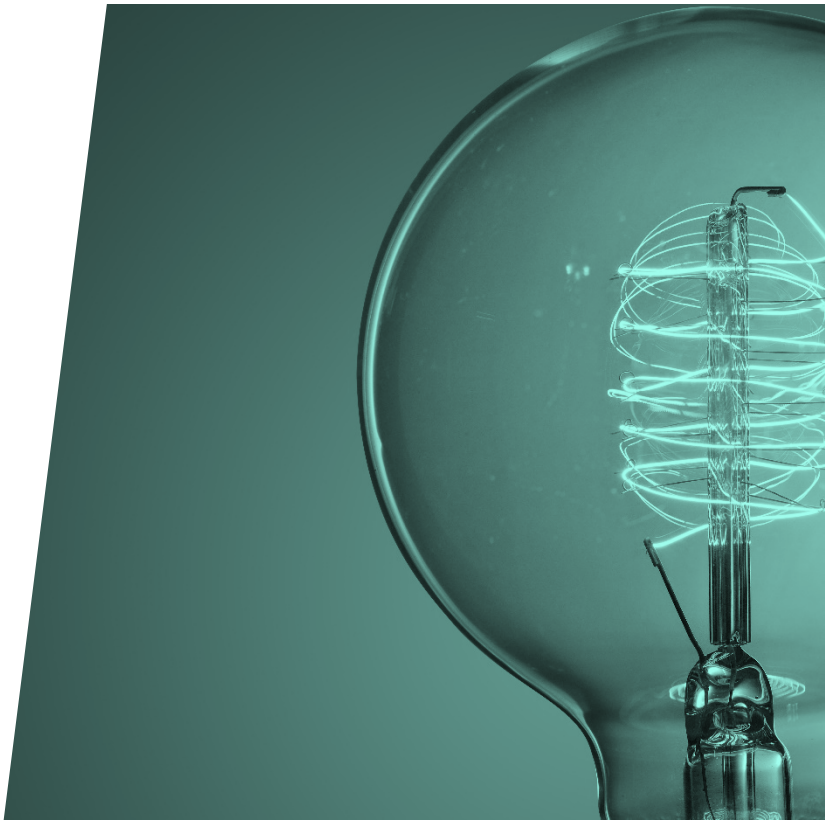
The discovery of electricity

SPEAKING

LEVEL	NUMBER	LANGUAGE
Advanced	C1_2038S_EN	English

Goals

- Can read, listen to and understand a complex text about the discovery of electricity.
- Can discuss past inventions in depth and convincingly make speculations about the future.



How many times a day do you use something electrical without even realising it? Even though we **take it for granted**, electricity is all around us. Let's take a moment to find out about its history.

The world around you

How many items can you see around you that use electricity?

Make a list with your teacher or the other students.

What would life be like without these items?

What would you use instead?

Check your knowledge

List 5 things you already know about the discovery of electricity. Are you able to answer any of the questions who, what, when, where and why?

Electricity

Electricity is a form of energy that occurs in nature. Many people say that the 18th century scientist Ben Franklin invented electricity by flying a kite in a lightning storm and collecting the electrical charge in a special jar. Franklin did invent several words we still use today, including **battery**, **conductor** and **electrician**. However, electricity has always existed. Franklin should be given credit for discovering certain things about electricity, not inventing it.

Electricity

There is historical evidence that ancient **civilisations** knew about, and used electricity. Egyptian texts from 2750 BCE write about getting shocks from electric fish. They thought that these electric fish were protectors of all other fish. In 600 BCE, ancient Greeks rubbed fur on amber, creating what we now know as static electricity (exactly the same as rubbing a balloon on your hair and letting it stick to the wall). Copper-lined pots, believed to have been batteries used to produce light, have been discovered at ancient Roman and Persian **archaeological** sites.

Electricity

Many well-known scientists besides Franklin contributed to the **body of knowledge** about electricity. For example, Italian physicist Alessandro Volta built a device called a voltaic pile in 1800. This was an early form of the electric batteries we use today. His work was so influential that the standard unit for measurement of electric potential, a volt, is named after him.

Electricity

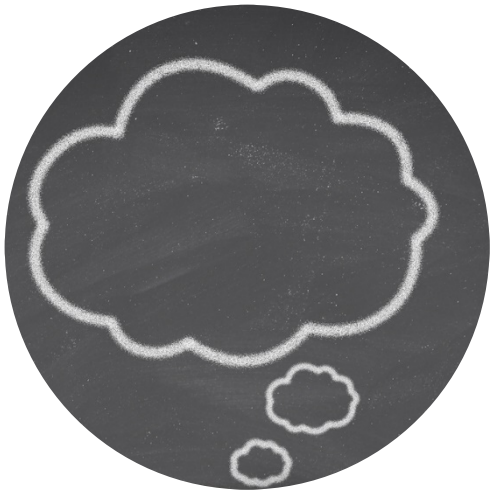
Other scientists who contributed to our knowledge of electricity include Nikola Tesla, Thomas Edison and Andre Ampere. This knowledge eventually combined in the late 19th century to make electricity available for **residential** and **industrial** use. The widespread use of electricity quickly changed society, allowing huge changes to take place in the way people lived and the way industry worked.

Vocabulary: do you know the meanings of these words and phrases?

to take something for granted

industrial

residential



battery

body of knowledge

conductor

archaeological

electrician

civilisation

Read the statements. Is each statement true or false?

	TRUE	FALSE
1. Electricity was invented by Ben Franklin.	☐	☐
2. Copper-lined pots were found in ancient Persia.	☐	☐
3. Ancient Egyptians used electricity.	☐	☐
4. Allesandro Volta invented the telephone.	☐	☐
5. The widespread use of electricity didn't have much effect on society.	☐	☐
6. Ben Franklin invented the word electrician.	☐	☐

Look back through the text. What happened at these times? Make sure to use a full sentence in your answer.

1. 18th century →
2. 2750 BCE →
3. 600 BCE →
4. The year 1800 →
5. 19th century →

Discussion

Discuss these questions with your group or teacher.

1 If you could study (or are studying) any branch of science, what would it be? Why?

Discussion

Discuss these questions with your group or teacher.

1 If you could study (or are studying) any branch of science, what would it be and why?

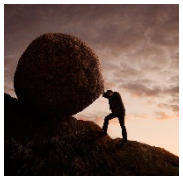
2 What changes have taken place as a result of widespread use of electricity? How has society developed?

Discussion

Discuss these questions with your group or teacher.

1 If you could study (or are studying) any branch of science, what would it be and why?

2 What changes have taken place as a result of widespread use of electricity?



3 In which situations do people have to live without electricity?

Improvise

Imagine that the electricity in your home has been suddenly cut off. Imagine a dialogue with your friend. You are calling her with the last 2% of your phone's battery life. Read the lines below and then role play the rest of the conversation!

Sarah! Are you there?

Oh, hey John! What's up?

Listen, I need your help – it's an emergency!

Oh?

Debate

Do you agree or disagree with the sentence below? Why or why not? Discuss with your teacher or group.

> “The world would be better off without such widespread reliance on electricity.”

Get ready to listen

The next few slides will focus on training your listening comprehension

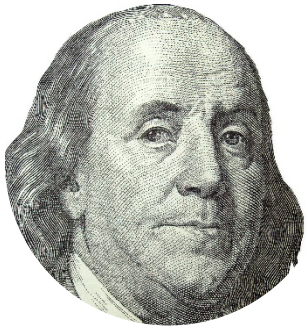
Listen and answer

Answer these questions as you listen to the text.

1. Which parts of the world do not have consistent access to electricity?
2. What are the two alternative sources of electricity production mentioned?
3. What percentage of Quebec's electricity comes from water?
4. What aspect of electricity production is a matter for concern?

Dialogue

Create a dialogue between Ben Franklin and a typical young person. How would their ideas about electricity be different?



You are Ben Franklin. You are just discovering the properties of electricity.

You are a typical young person in the 21st century. Many aspects of your life rely on electricity.

Reflect and discuss

Many popular hobbies nowadays are reliant upon electricity. Imagine humankind had never discovered electricity. What kind of pastimes do you think would be popular instead?

Reflect on the lesson

Take a moment to review any new **vocabulary**, **phrases**, **language structures** or **grammar points** you have come across for the first time in this lesson.

Review them with your teacher one more time to make sure you don't forget!

Reflect on the goals

Go back to the second slide of the lesson and check if you have achieved all the goals of the lesson.

yes

no

Reflect on this lesson

Think about everything you have seen in this lesson.
What were the most difficult activities or words? The easiest?

If you have time, go over
the most difficult slides again

Transcription

Today, most people in the world only have to go without electricity in the instance of a **natural disaster** or other emergency. According to recent data, nearly everyone in the world has access to electricity all or most of the time, with the exception of some countries in Southeast Asia and Africa.

Many people now have serious concerns about our use of **fossil fuels** to produce electricity, and are looking for other more **sustainable** ways of creating electricity. For example, the province of Quebec in Canada gets 96% of its electricity from water. Particularly unusually, the city of Albertville, in France, uses the gas created by ageing cheese to produce electricity!

Answer Key

Activity p. 11

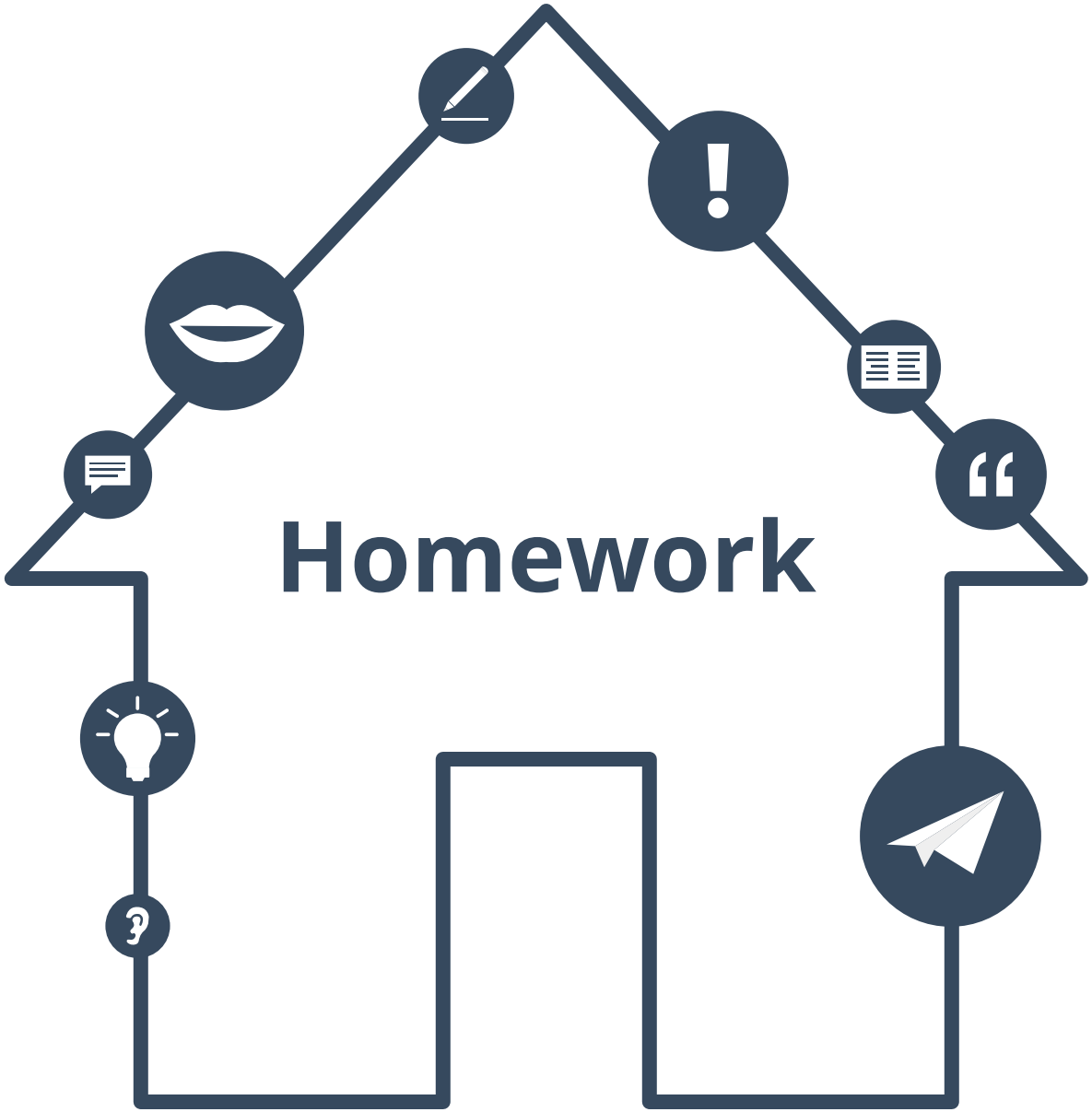
1f, 2t, 3f, 4f, 5f, 6t.

Activity p. 12

1 Ben Franklin lived and worked. 2 Egyptians wrote about electricity. 3 Greeks discovered static electricity. 4 Volta built the volatic pile. 5 Electricity was made available for widespread use.

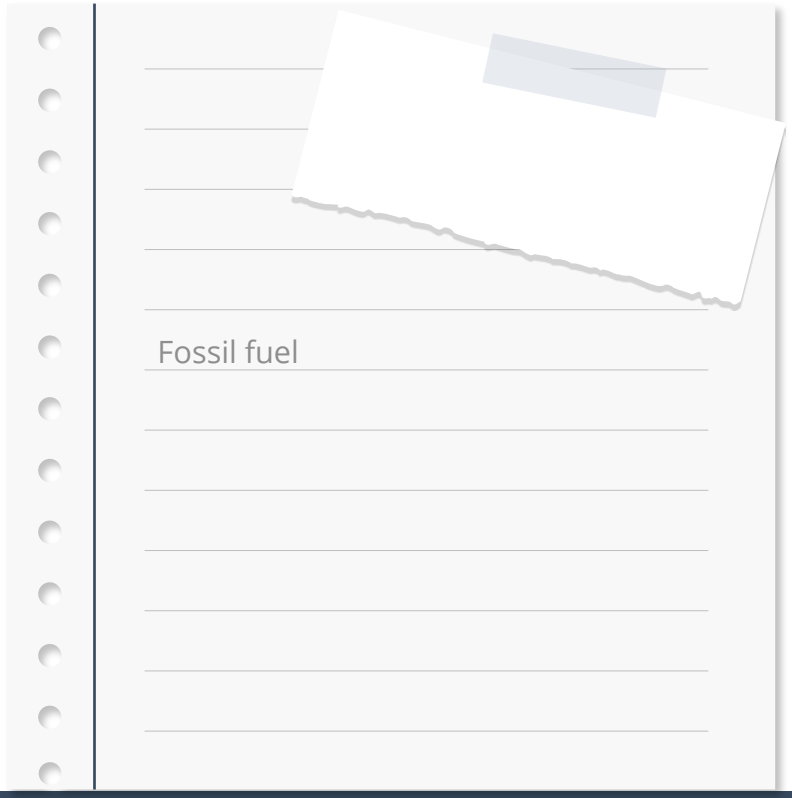
Activity p. 19

1. Southeast Asia and Africa. 2 water and gas produced by cheese. 3 96%. 4 fossil fuels.


Homework

My favourite words

Make a list of your favourite or most useful words from this lesson.



Using my favourite words

Write some sentences using the words you chose on the previous page.

For a challenge, create a story or short essay instead of individual sentences.

Fossil fuels are growing more expensive because they are so unsustainable.

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