



# STORMS ON SATURN



Scan to review worksheet

Expemo code:  
144E-PEAQ-XX4

## 1

### Warm up

Complete the quiz about extreme conditions on Earth.

1. The lowest winter temperature ever recorded was  $-89.2^{\circ}\text{C}$ , in **Siberia, Russia / Greenland / Antarctica**.
2. A **hurricane** is powerful tropical storm. In a category 5 hurricane, winds reach a speed of **155 km per hour / 252 km per hour / 358 km per hour**.
3. The centre of a hurricane is called the **eye / calm / mouth** of the storm.
4. A **dust devil** is a type of dust storm that occurs in very dry places. The largest dust devils can be **10 m / 100 m / 1000 m** tall.
5. The **jet stream** is a strong wind that moves from west to east. Because of the jet stream, flights from New York to London are usually around **30 minutes / 1 hour / 2 hours** faster than flights from London to New York.
6. **Radiation** is energy which comes from nuclear reactions. The town of Ramsar, in Iran, has dangerously high levels of radiation which come from a **local nuclear power plant / the rocks in the area / space**.
7. Lemon juice is an **acid** with a pH value of 2; water has a pH value of 7. Scientists have discovered life in an acidic hot spring (pH 0.2) in **Ethiopia, East Africa / Death Valley, California, USA / Alice Springs, Australia**.

Have you ever experienced extreme weather or conditions?





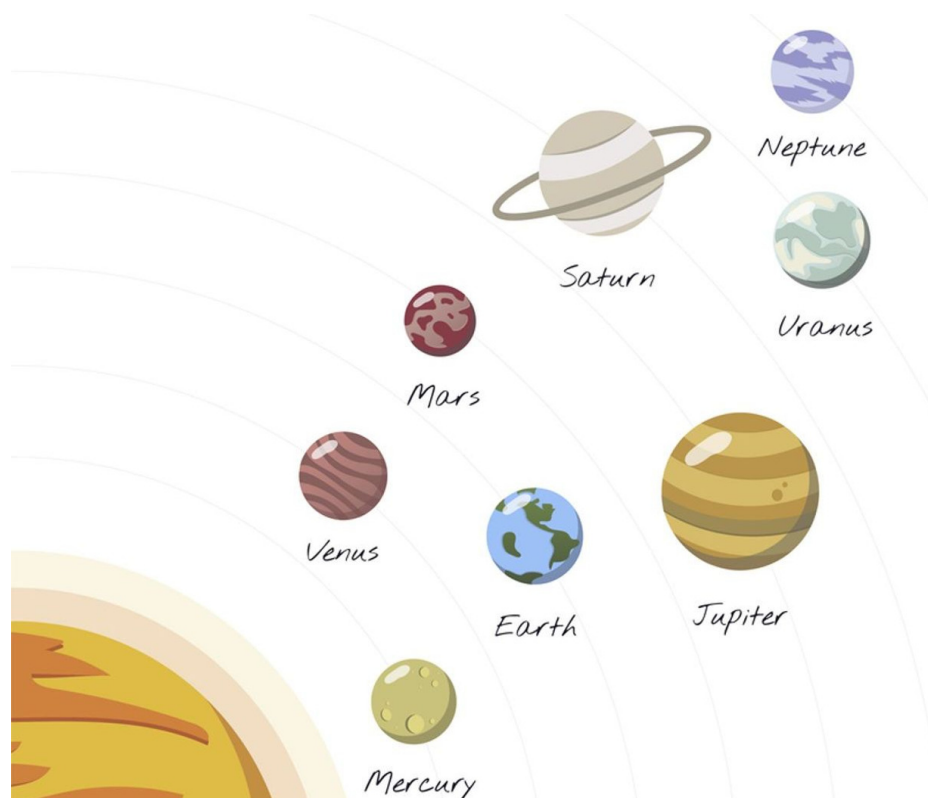
## 2

**Watch for main idea**

You are going to watch a video called **Extreme Weather on Other Planets**. Before you watch, match the planets with the extreme weather condition that you think occurs there. Then watch to check your ideas.



- |            |                        |
|------------|------------------------|
| 1. Mercury | a. acid rain           |
| 2. Venus   | b. dust storms         |
| 3. Mars    | c. giant hurricanes    |
| 4. Jupiter | d. long winters        |
| 5. Saturn  | e. powerful jet stream |
| 6. Uranus  | f. radiation storms    |
| 7. Neptune | g. strong winds        |



Is there anything in the video which surprised you?



## 3

**Vocabulary**

Match these words from the video with their definitions.

- |               |  |
|---------------|--|
| 1. astronomer | a. a person who studies stars, planets and moons                           |
| 2. atmosphere | b. be greater than   |
| 3. exceed     | c. dangerous to your health  |
| 4. phenomenon | d. something unusual or interesting that we can experience with our senses |
| 5. rotate     | e. the material on the ground in which plants grow                         |
| 6. soil       | f. the mixture of gases around a planet                                    |
| 7. spin       | g. turn in a circle  |
| 8. toxic      | h. turn in a circle, especially at high speed                              |

**phenomenon** has an irregular plural form – do you know what it is?

Can you think of more examples of:

1. Things which spin or rotate?
2. Things which can be toxic?
3. Gases which are part of the earth's atmosphere?



**4 Watch for detail**

Read the questions and try to remember the answers. Then watch the video again to check your ideas.

Why doesn't Mercury have real weather?

1. \_\_\_\_\_

How long would it take for the acid rain on Venus to eat through your skin?

2. \_\_\_\_\_

How long can dust storms last on Mars?

3. \_\_\_\_\_

What is the minimum age of the Red Spot on Jupiter?

4. \_\_\_\_\_

When did astronomers discover The Little Red Spot (Oval BA) on Jupiter?

5. \_\_\_\_\_

On Saturn, a giant cloud system is rotating at the North Pole. How does the size of this system compare to a similar structure on Earth?

6. \_\_\_\_\_

Why does Uranus have the most extreme weather in the solar system?

7. \_\_\_\_\_

What is the maximum wind speed on Neptune?

8. \_\_\_\_\_



## 5

**Language point**

When a text is very rich in information, punctuation and intonation help to stage the delivery and support the reader or listener in understanding.

Read the information about Jupiter from the video and add **capital letters**, **commas** and **full-stops** to organise the information into sentences. Remember that a sentence usually expresses one idea, and occasionally two.

and the weather on Jupiter isn't any better of course there's the Great Red Spot a hurricane-like storm that's been raging for at least 300 years but there's another storm on Jupiter that's equally powerful with wind speeds twice as fast as a category 5 hurricane its name is Oval BA otherwise known as the little red spot but it's hardly little it's actually about the size of earth and it's been growing in size since astronomers discovered it in 2000

Use the transcript to check your answers.

Listen to the speaker in this part of the video (01:15-01:45).

1. What does the speaker do when she reaches a comma or a full-stop?
2. Does the speaker's voice go up or down when she finishes explaining one piece of information?

Read the sentences out loud, copying the intonation from the speaker in the video.

What rules of formal writing does this text ignore?

## 6

**Talking point**

Answer these questions in pairs or small groups.

1. Which planet do you think has the most extreme conditions compared to Earth? Which planet is the most similar?
2. Why do humans want to explore other planets?
3. How can scientists plan to overcome the technical problems posed by the extreme conditions on other planets?
4. In the video, Earth is described as "just right". How does it make you feel when you consider the extreme conditions on other planets in our solar system and beyond?
5. Is it worth spending a lot of money on space exploration or do you think there are other things we should spend money on?
6. What's the difference between **astronomy** and **astrology**? Are you interested in either of these subjects? Why/not?



## 7

**Optional extension**

A mnemonic /nɪˈmɒn.ɪk/ is a pattern of words or letters which assists in remembering difficult information.

For example, you could use this sentence to remember how plants and animals are classified (kingdom, phylum, class, order, family, genus, species): **K**angaroos **p**lay **c**hess **o**n **f**uzzy **g**reen **s**quares.

1. How does this technique help people remember difficult information?
2. Invent a mnemonic sentence in English to help you remember the order of the planets moving out from the Sun: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune and Pluto.