

## Developing ideas ◀

- 1 Read the short introduction to Benjamin Franklin and share any other information you know about him.



Benjamin Franklin (1706–1790) was one of the Founding Fathers of the United States and helped draft the Declaration of Independence and the US Constitution. Apart from being a successful statesman, he was also well known as a leading American author, printer and publisher, successful diplomat, creative scientist and inventor.

- 2 Read the passage and find out what Franklin's experiment aimed to prove.

### □ Learning to learn

An essay title often contains an explicit or implicit question which your essay should focus on answering. For example, the title "Franklin's Experiment: How Much Is True?" makes it clear what question is being answered within the essay.

# FRANKLIN'S EXPERIMENT: How Much Is True?

- 1 Benjamin Franklin's famous experiment with lightning has introduced generations of children to science. However, new research suggests that the story may be fiction instead of fact.
- 2 The well-known story is that the American Founding Father and scientist flew a kite during a storm in 1752. At that time, there was much interest in electricity. People wanted to know if lightning was really produced by electricity or something else. Franklin was one of them. He raised the kite with a piece of string tied to it. A metal key was attached to the string. A flash of lightning hit the kite, and electricity was conducted through the string to the key. Franklin then touched the key with his finger and got an electric shock. This, he said, proved that lightning was a form of electricity.

3 For many years, schools have taught the story of Franklin's lightning experiment. More than one generation of schoolchildren has been amazed by his bravery and his scientific approach to looking for the truth. Franklin, along with many other scientists, has inspired us and taught us that scientific experiments are important in order to establish the truth and to contribute

towards later scientific discoveries and inventions.

4 However, neither the story nor the details of the experiment are entirely true. Although it has been proved that Franklin's experiment took place, more than one scientist has questioned what really happened. The detail about the string and the key is true.



But scientists all agree that if Franklin had actually touched the key, he would certainly have died from the electric shock.

- 5 Scientists often question accepted ideas because they want to establish the facts. Some have even questioned the story about the apple that fell on Newton's head and led him to come up with his theory of gravity. In fact, more than one account suggests that while Newton was certainly inspired by a falling apple, there is no proof that it hit him on the head.
- 6 Admittedly, fiction is often more interesting than the truth. People have been more inspired by Franklin's spirit of scientific exploration than by the facts themselves. But in science, facts should be proved by experiments and research, and we should not always believe everything we read or hear – even if it is a great story.



- 3** Number the statements to show how people's attitudes towards Franklin's experiment have changed.
- Franklin's spirit of scientific exploration is still considered an inspiration.
  - People are amazed at and inspired by Franklin's experiment.
  - Scientists question what really happened in Franklin's experiment.

Think & Share

- 1 Do you think it matters that Franklin's experiment might not be true? Why?
- 2 What is your opinion about the statement "... we should not always believe everything we read or hear – even if it is a great story"?
- 3 What qualities do you think a great scientist should have?
- 4 In what ways do scientists contribute to society?

4 Work in groups. Explain your understanding of the saying "Seeing is believing", and then give a talk about it. You may use information in the passage as examples.

- 1 Make notes about your understanding of the saying and list supporting details.

Your understanding	Supporting details

- 2 Organise your talk following the steps below.
  - Start your talk by explaining how you understand this saying.
  - Explain why you think this way. Use the notes you have made to support your ideas.
  - End your talk by summarising your points.
- 3 Give your talk to the class.

## Understanding ideas ▼

- 1 Work in pairs and complete the quiz. Try to guess if you are not sure of the answers.



- 1 Where is the Louvre Museum?
  - a In London.
  - b In Paris.
  - c In Berlin.
- 2 When was the original castle of the Louvre built?
  - a The 12th century.
  - b The 15th century.
  - c The 18th century.
- 3 How many works of art are there in its collection?
  - a Around 180,000.
  - b Around 400,000.
  - c Around 480,000.
- 4 Which work of art is among the "Big Three" attractions of the Louvre?
  - a The Code of Hammurabi.
  - b *Liberty Leading the People*.
  - c *Venus de Milo*.

- 2 Read the passage and find out what Zack is doing in the Louvre.

- 1 Hi, it's Zack! Greetings from Paris, everyone! This broadcast is being brought to you from one of the largest museums on Earth – the Louvre! Today we're going to find out about some of the Louvre's most amazing treasures. Here we go!
- 2 Now, at the top of these stone stairs... get a load of that! That huge sculpture you can see is the *Winged Victory of Samothrace*, or *Nike of Samothrace*! I can't even begin to tell you how amazing this is! It looks like she has





# Live from the Louvre

just flown down out of the sky and is standing on a ship. Her head and arms are missing, but you can imagine her holding her arms up high, celebrating the result of an ancient battle. And just look at how her dress is being folded by the wind! I really can't believe she's made of stone. The skill of the sculptor is just incredible.

- 3 Okay, I'd better move on. You can see there are so many people here. I'm being pushed around quite a bit, in fact. And you're really going to love what's coming up next. It's the one and only *Mona Lisa*! The painting is a lot smaller than you would expect, and is protected by glass. But from here I can get a good view to show you. When I look into her eyes it seems she has a mind of her own!



One moment she seems to be laughing at me, but then again I catch a sense of sadness in her smile. I guess that's why she attracts so many visitors every day.

- 4 And now, it's time to get up close and personal with one of history's greatest artists – Rembrandt! He painted this self-portrait about 400 years ago. Throughout his life, he made over 90 self-portraits!





No one really knows why. Perhaps it was his way of taking a 17th-century selfie? Or was it simply cheaper to paint himself than to pay for a model?

- 5 About 35,000 works are currently being displayed in over 300 rooms in the Louvre, and it would take a lifetime to see everything! I'll say bye for now, and hope you can all visit this fantastic place one day to feel the power of these great works of art for yourselves. They really do reach out to us across the centuries as if time itself were nothing. By the way, if you have enjoyed this live broadcast, subscribe to find out where I'm visiting next!



- 3 Choose three tags that best describe the main idea of the passage and give reasons for your choices.

Louvre

art

museum

*Mona Lisa*

tour guide

history

selfie

exhibition

fantastic

live broadcast

4 Complete the route with expressions from the passage.



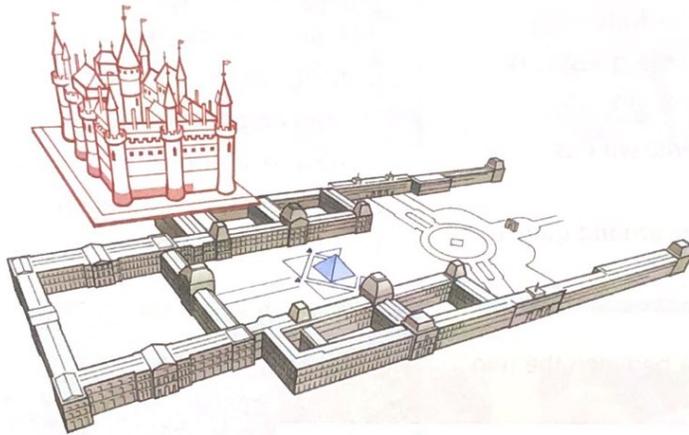
**Winged Victory of Samothrace**

Here at the top of the stairs is this <sup>1</sup> \_\_\_\_\_. Although <sup>2</sup> \_\_\_\_\_, you can still imagine her posture. The folded dress shows incredible <sup>3</sup> \_\_\_\_\_.



**Mona Lisa**

This is perhaps the most famous painting here, protected by glass. It's smaller than <sup>4</sup> \_\_\_\_\_. The lady in the painting seems to have <sup>5</sup> \_\_\_\_\_, which makes her so interesting!



**Rembrandt's self-portrait**

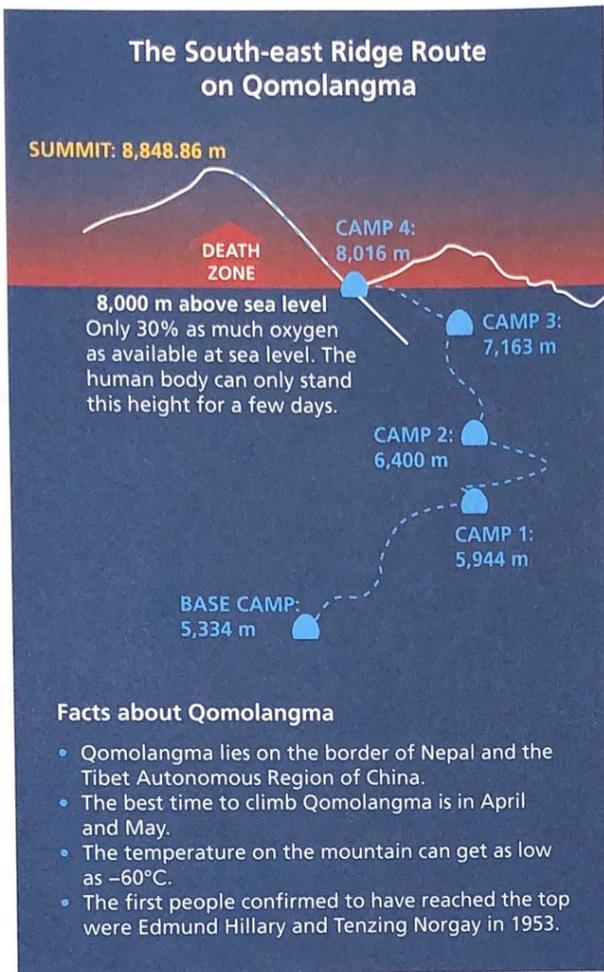
This is one of the 90 or more self-portraits Rembrandt made in his lifetime. We don't know why he made so many – perhaps it was his way of <sup>6</sup> \_\_\_\_\_! Or maybe it was just <sup>7</sup> \_\_\_\_\_?

- 1 Which of the three artworks makes the greatest impression on you? Why?
- 2 Which galleries and museums have you visited? Share your experience with the class.

Think & Share

## Understanding ideas ▼

1 Look at the map and answer the questions.



- 1 Who were the first people confirmed to have reached the top of the mountain? When did this happen?
- 2 Why do you think the climbers need so many camps along the route?
- 3 What else do you know about Qomolangma? Share the information with the class.

2 Read the passage and find out what "Type T" personalities are.

## CLIMBING QOMOLANGMA: WORTH THE RISKS?

- 1 Last year, hundreds of people spent good money on an experience that they knew would include crowds, discomfort and danger. Many would become sick, due to the extreme cold and low air pressure, and a few would even lose their lives. Yet, despite all this, by the end of

the trip many were already planning to return. For these people, climbing Qomolangma is an experience like no other, making some feel weak and others, powerful.

- 2 British mountain climber George Mallory wrote of climbing Qomolangma, "What we get from this adventure is just sheer joy... We do not live to eat and make money. We eat and make money to be able to enjoy life. That is what life means and what life is for." Sadly, Mallory would die on the mountain in 1924, although his body would not be found until many years later. It is still not known if he succeeded in reaching the top of Qomolangma before it took his life.

- 3 In 2011, words similar to those of Mallory were spoken by American mountain climber Alan Arnette, who climbed Qomolangma in that year and was going to climb other high mountains around the world. "It brings into focus what's important to you." He added, "There are a thousand reasons to turn around and only one to keep going. You really have to focus on the one reason that's most important and unique to you. It forces you to look deep inside yourself and figure out if you really have the physical, as well as mental, toughness to push when you want to stop."
- 4 With the majority of attempts to climb Qomolangma resulting either in total success or failure,



is there also a scientific reason behind this risk-taking? Recent studies indicate that risk-taking may be part of human nature, with some of us more likely to take risks than others. Psychologist Frank Farley has spent years studying people who jump out of planes and drive fast cars, as well as those who climb Qomolangma. He refers to the personalities of these people as “Type T”, with the “T” standing for “thrill”.

- 5 Speaking to the *LA Times* about the “Type T” personalities, Farley said, “They’ll say, ‘I’m not taking risks, I’m an expert...’ They don’t want to die and they don’t expect to die.”
- 6 Research also suggests that our desire to seek risks can be connected to how much we expect to benefit from the result.
- 7 With this in mind, are the benefits of climbing Qomolangma worth the risks? It’s totally up to you.



**3** Choose the author’s purpose in writing the passage.

- 1 To encourage people to climb Qomolangma if fully prepared, as risks bring many benefits.
- 2 To remind people to balance the benefits and risks before deciding to climb Qomolangma.
- 3 To suggest that people stop taking risks and climbing Qomolangma, as the risks outweigh the benefits.

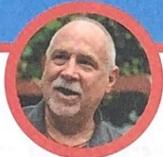
4 Complete the paragraphs with expressions from the passage.

## Why Do People Climb Qomolangma?



**George Mallory**

What people get from this adventure is just <sup>1</sup> \_\_\_\_\_. People eat and make money to be able to <sup>2</sup> \_\_\_\_\_, not the other way round.



**Alan Arnette**

Each person has a(n) <sup>3</sup> \_\_\_\_\_ reason for climbing a mountain. It forces people to <sup>4</sup> \_\_\_\_\_ themselves. To succeed, people must have the physical as well as <sup>5</sup> \_\_\_\_\_.

### Scientific reasons

Risk-taking may be part of <sup>6</sup> \_\_\_\_\_. People who are more likely to <sup>7</sup> \_\_\_\_\_ have "Type T" personalities. Research also suggests that our desire to seek risks can be connected to how much we expect to <sup>8</sup> \_\_\_\_\_.

1 Do you agree with Mallory's and Arnette's opinions? Why?

2 If you were given the chance, would you like to climb Qomolangma? Why or why not?

Think & Share