



First Person to Visit Space and Deepest Point in the Ocean

What is the Mariana Trench?

- The Mariana Trench is a crescent-shaped trench in the West Pacific. It is roughly 1580 miles long and 43 miles wide.
- The trench is near to the Mariana Islands, in the Pacific Ocean, and the deepest known point in it (around 11 000m) is called Challenger Deep.

Over 550 people have been into space; only eight have been to Challenger Deep, the deepest known point in the ocean. Now, though, Kathy Sullivan has become the first person to do both!

Kathy Sullivan visited Challenger Deep in the Mariana Trench. The trench lies about 200 miles from the small island of Guam, in the west of the Pacific Ocean. In doing so, Kathy becomes the first person to have done so who has also been into space.

As only the eighth person to ever reach the deepest part of the ocean, she was also the first woman to do so. However, Kathy is used to breaking records.

In 1978, she was in the first NASA class of women astronauts. Then, in 1984, she became the first American woman to complete a spacewalk.

However, rather than a spacecraft, she set her most recent record in a specially built **submersible** called Limiting Factor.

Kathy slowly **descended** for almost 11 000m into the Mariana Trench. The trench is so deep that if you were to drop Mount Everest down to Challenger Deep, the mountain's peak would still be more than 2000m below the surface of the water!

The journey down took around four hours. But, they couldn't stay for long because of the

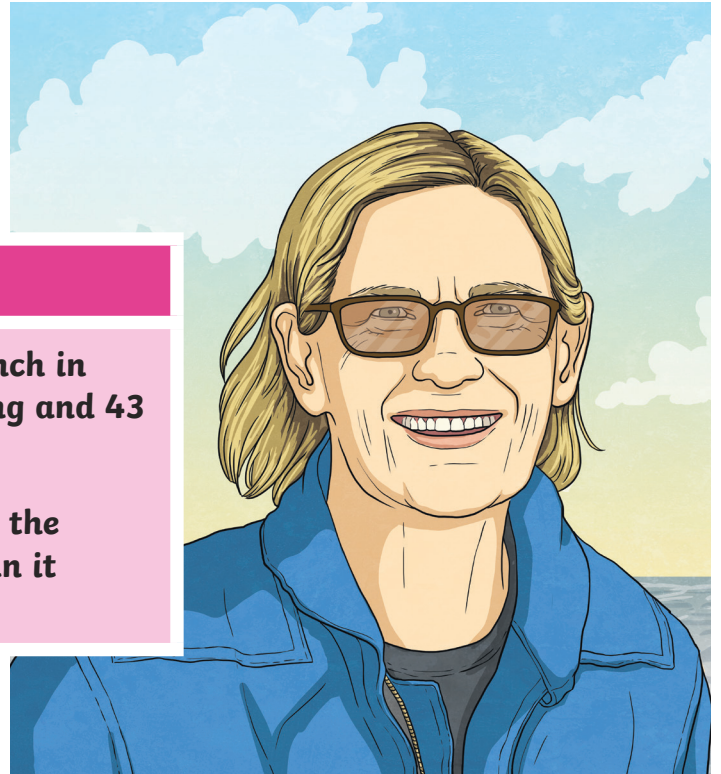


Illustration: Kathy Sullivan.

enormous water pressure down there. At that depth, it is like having 2200 tonnes of pressure pushing down on the small underwater vehicle.

Kathy said that as an **oceanographer** and astronaut, this was an extraordinary day". She went on to say it was, "a once in a lifetime day, seeing the moonscape of the Challenger Deep and then comparing notes with my colleagues on the ISS [International Space Station]".

This is because after making an equally slow **ascent** back to the ship on the surface, Kathy put in a call to the International Space Station!

Glossary

submersible	A small craft designed to operate under water.
descended	To have fallen, moved or gone down.
oceanographer	Someone who studies the marine environment.
ascent	To have climbed, risen or gone up.

Questions

1. How long did it take for the Limiting Factor to reach the deepest point in the ocean?

2. When Kathy said, “a once in a lifetime day, seeing the moonscape of the Challenger Deep and then comparing notes with my colleagues on the ISS”, what do you think she meant by the word ‘moonscape’?

3. Number these events 1 to 4 in the order they happened. One has been done for you.

- Kathy Sullivan reached Challenger Deep.
- Kathy Sullivan became the first American woman to do a spacewalk.
- Kathy Sullivan phoned the astronauts on the International Space Station.
- 1 Kathy Sullivan began astronaut training.

4. In the paragraph beginning ‘The journey down took...’, find and copy a word that means ‘very large’.

5. Why do you think the author chose to use an exclamation mark at the end of this sentence: “Because after making an equally slow ascent back to the ship on the surface, Kathy put in a call to the International Space Station!” **Tick two.**

- They wanted to show anger.
- They wanted to show astonishment.
- Because this is a silly thing for her to have done.
- Because this is an exciting thing for her to have done.

6. Summarise the key information in this story in 15 words or fewer.

Answers

1. How long did it take for the Limiting Factor to reach the deepest point in the ocean?
It took around four hours.
2. When Kathy said, “a once in a lifetime day, seeing the moonscape of the Challenger Deep and then comparing notes with my colleagues on the ISS”. what do you think she meant by the word ‘moonscape’?
Accept an answer which refers to either that the ocean floor must have looked similar to the surface of the Moon or that it must be rocky and empty down there (similar to the Moon).
3. Number these events 1 to 4 in the order they happened. One has been done for you.
 - 3 Kathy Sullivan reached Challenger Deep.
 - 2 Kathy Sullivan became the first American woman to do a spacewalk.
 - 4 Kathy Sullivan phoned the astronauts on the International Space Station.
 - 1 Kathy Sullivan began astronaut training.
4. In the paragraph beginning ‘The journey down took...’, find and copy a word that means ‘very large’.
enormous
5. Why do you think the author chose to use an exclamation mark at the end of this sentence: “Because after making an equally slow ascent back to the ship on the surface, Kathy put in a call to the International Space Station!” **Tick two.**
 - They wanted to show anger.
 - They wanted to show astonishment.**
 - Because this is a silly thing for her to have done.
 - Because this is an exciting thing for her to have done.**
6. Summarise the key information in this story in 15 words or fewer.
Accept an answer which includes the main facts from the story, e.g. Kathy Sullivan is the only person who has been to space and Challenger Deep.