

## Comet NEOWISE Visible Throughout July

### What are comets?

- Comets are balls of mostly ice and dust in orbit around the Sun.
- The heat from the Sun melts the ice on the comet. This then causes gases and dust to be released. As a result, a long tail is created.

### Comet NEOWISE is visible throughout July from anywhere in the UK.

Astronomers were **hesitant** to predict that it would become visible with the naked eye after the disappointments of comets SWAN and ATLAS.

However, it has survived its encounter with the Sun and can now be seen low on the northern **horizon**.

Although binoculars will help, many people have reported being able to see it with just their eyes.

Comet NEOWISE is currently near the bright star Capella in the **constellation** of Auriga.

It will be closest to Earth on 23<sup>rd</sup> July. At that point, you will be able to see it underneath the constellation Ursa Major - also known as the Big Dipper or the Plough.

It's long path through our Solar System looks a bit like putting an elastic band over your finger and pulling it tight.

The comet's **trajectory** had it zooming straight past the Sun. It then curved sharply round the star, as it got caught in the Sun's gravity, and is now flying back off into outer space.

It is at this point, after being flung off away from the Sun, that we can now see it.

Previous comets have broken up during their close brushes with our life giving star. But, comet NEOWISE is obviously made of tougher stuff.

It survived temperatures of up to 593°C as it

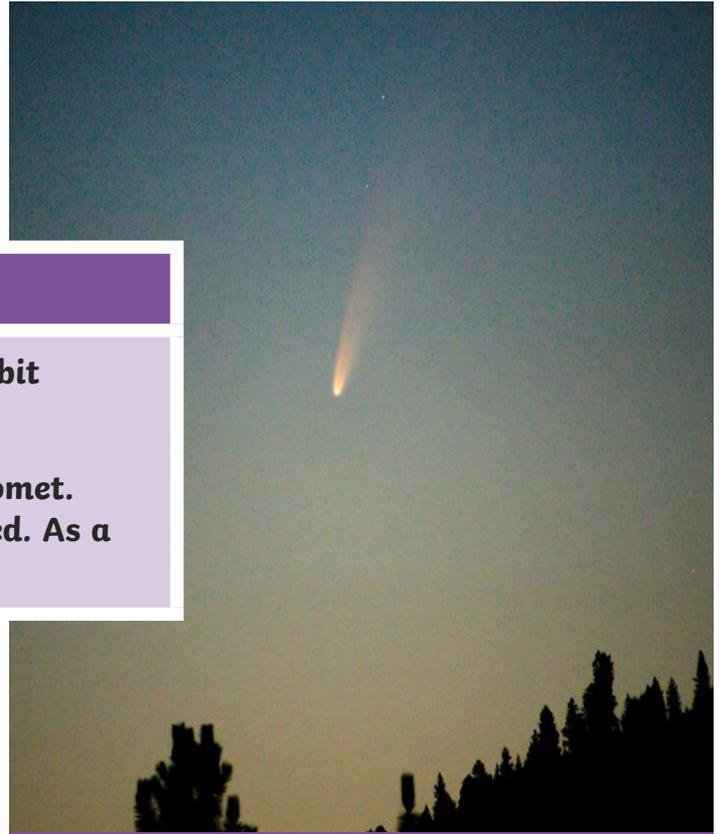


Photo: NEOWISE seen from Earth.

got to within 27.3 million miles from the Sun.

That might sound like a great distance but, by contrast, we only orbit the Sun at roughly 93 million miles.

Just in case you might be worried, it poses no danger to us. At its closest, the comet will still be 64 million miles away.

### Glossary

<b>hesitant</b>	Tentative, unsure, or slow in acting or speaking.
<b>horizon</b>	The line at which the Earth's surface and the sky appear to meet.
<b>constellation</b>	A group of stars forming a recognisable pattern.
<b>trajectory</b>	The path followed by a flying object.

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# Questions

- On 23<sup>rd</sup> July, how far away from Earth will comet NEOWISE be?
  - 27.3 million miles
  - 64 million miles
  - 93 million miles
  - 400 million miles
- “Astronomers were hesitant to predict that it would become visible with the naked eye after the disappointments of comets SWAN and ATLAS” This suggests that...
  - They thought neither of the other comets would be visible.
  - They didn't know if comet NEOWISE would be visible from Earth.
  - They were keen to say that comet NEOWISE would be visible from Earth.
  - The scientists are just guessing everything.

- Tick to show whether the statement is true or false according to the article.

	True	False
Comet NEOWISE is currently near the big dipper.		
We couldn't see comet SWAN and ATLAS with the naked eye.		
The comet survived temperatures of up to 27.3 million°C as it went near the sun.		
Comets are balls of mostly ice and dust.		

- Which of the following definitions is closest in meaning to the word 'poses' as it is used in the final paragraph?
  - A way of standing or sitting.
  - Places someone in a particular position to be photographed.
  - Raises attention.
  - Ask someone a question.

- Why do you think the author chose to use the term 'made of tougher stuff'?

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- Summarise the key information in the article using 15 words or fewer.

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# Answers

1. On 23<sup>rd</sup> July, how far away from Earth will comet NEOWISE be?
- 27.3 million miles
  - 64 million miles**
  - 93 million miles
  - 400 million miles
2. "Astronomers were hesitant to predict that it would become visible with the naked eye after the disappointments of comet SWAN and ATLAS" This suggests that...
- They thought neither of the other comets would be visible.
  - They didn't know if comet NEOWISE would be visible from Earth.**
  - They were keen to say that comet NEOWISE would be visible from Earth.
  - The scientists are just guessing everything.

3. Tick to show whether the statement is true or false according to the article.

	True	False
Comet NEOWISE is currently near the big dipper.		✓
We couldn't see comet SWAN and ATLAS with the naked eye.	✓	
The comet survived temperatures of up to 27.3 million°C as it went near the sun.		✓
Comets are balls of mostly ice and dust.	✓	

4. Which of the following definitions is closest in meaning to the word 'poses' as it is used in the final paragraph?
- A way of standing or sitting.
  - Places someone in a particular position to be photographed.
  - Raises attention.**
  - Ask someone a question.
5. Why do you think the author meant by the phrase 'made of tougher stuff'?
- Accept any answer that refers to the phrase meaning that the comet has survived the high heat of the Sun.**
6. Summarise the key information in the article using 15 words or fewer.
- Accept a summary which includes the key information from the article and uses 15 words or fewer, e.g. Comet NEOWISE can be seen from the UK in July.**