

# The Moon

Do you ever look up in the sky at night and see the spherical Moon lighting up the night-time town? Do you sometimes ponder what it would be like to visit the Moon or wonder why it shines so bright? Well here's some facts and figures that might interest you...

## Moon and Sun:

The Moon shines extremely brightly but is only reflecting the rays of the Sun whilst it is round the other side of the Earth. The Moon cannot make its own light as it is not a star, like the Sun. When we rotate back towards the Sun for our daytime we assume the Moon goes away but it doesn't, it's just harder to see because it is so bright. Sometimes, if you look carefully, you can see the Moon in the sky during the daytime.



## Did you know?

Average surface temperature in the day: 107°C

Average surface temperature at night: -153°C

Distance from Earth: 238,857 miles

Diameter: 2,160 miles

Length of Day: 708 hours

Selenophobia is fear of The Moon

## Orbit:

The Moon is the Earth's only satellite (an object that orbits a larger object). It takes the Moon approximately 28 days to orbit the Earth once, this is referred to as a lunar month. During this time we only ever see the same side of the Moon as it rotates slowly whilst it moves around us. The Moon is not quite spherical and is slightly heavier on one side, so gravity keeps the heavier side facing us.

During its orbit the Moon is sometimes covered by a shadow of the Earth, this is what gives us the phases of the Moon, when it is waxing and waning with.

## Moonwalking:

Only 12 people have ever walked on the Moon! The first person to do this was Neil Armstrong on 20th July 1969. There were two other astronauts on the mission: Buzz Aldrin and Michael Collins who travelled on the Apollo 11 shuttle.

You may have seen footage of astronauts walking on the moon and you will notice it looks bouncy. This is because the Moon's gravity is only that of 1 sixth of the Earth's so people take longer to return to the surface when they are up in the air.

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# Questions About The Moon

1. Who was the second man to walk on the Moon? How do you think he felt?

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2. How does the moon look like it lights up when it doesn't?

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3. Explain how a satellite and an object work together?

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4. How much colder is the Moon at night than in the daytime?

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5. Why does the Moon have different shadows on it during its cycle?

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6. Why is the Moon warmer than Earth in the day and colder than Earth at night?

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7. People refer to the 'dark side of the Moon'. What do you think this means?

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8. What is the name of someone who has a fear of the Moon?

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9. How far did Neil Armstrong travel to get to the Moon and back?

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10. Work out how long it would take a car travelling at 70mph to get to the Moon.

a: In hours

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b: In days

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# Questions About The Moon

## Answers

1. Who was the second man to talk on the Moon? How do you think he felt

**Buzz Aldrin**

**(Discuss: how he felt, jealous that he wasn't the first? Or excited as he was still the second person ever to walk on the Moon?)**

2. How does the moon look like it lights up when it doesn't?

**It reflects the Sun's light/rays**

3. Explain how a satellite and an object work together?

**The satellite orbits a larger object**

4. How much colder is the Moon at night than in the daytime?

**260°C (107 + 153)**

5. Why does the Moon have different shadows on it during its cycle?

**The Earth casts a shadow and the Earth and the Moon move and spin so the shadows change.**

6. Why is the Moon warmer than Earth in the day and colder than Earth at night?

**It is nearer the Sun in the day and further away from the Sun at night.**

7. People refer to the 'dark side of the Moon'. What do you think this means?

**We always see the same side of the Moon (this is lit up) so there is always the same side of the Moon that gets no light around the back that we don't see. This is the dark side of the Moon. (Interesting fact: also the name of the seminal album by Pink Floyd).**

8. What is the name of someone who has a fear of the Moon?

**Selenophobic (Note: this is not 'selenophobia' as we are looking for the name of the person, not the fear).**

9. How far did Neil Armstrong travel to get to the Moon and back?

**477,714 miles (238,857×2)**

10. Work out how long it would take a car travelling at 70mph to get to the Moon.

a. In hours

**3412 hours (238857 ÷ 70)**

b. In days

**142 days (3412 ÷ 24)**