## The Moon

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

## Moon and Sun

The Moon shines very brightly, but is only reflecting the light of the Sun it can't make its own light. When the Sun comes back up for our daytime we think that 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 temperature in the day: $107^{\circ} \mathrm{C}$
- Average temperature at night: $-153^{\circ} \mathrm{C}$
- Distance from Earth: 238857 miles
- Diameter: 2160 miles
- Length of day: 708 hours
- Selenophobia is fear of the Moon


## Orbit

The Moon is the Earth's only satellite (that means something that orbits a larger object). It takes the Moon about 28 days to orbit the Earth once: we call this 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.

During its orbit, the angle between the Earth, Moon and Sun changes so the part of the Moon that is lit up can not always be seen from Earth. This is what gives us the phases of the moon, when it is waxing (growing bigger) and waning (getting smaller) with shapes including crescent and gibbous.

## 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 men on the mission: Buzz Aldrin and Michael Collins and they all travelled on the Apollo 11 spacecraft.

You may have seen a film of people walking on the Moon and it isn't quite the same as walking on the Earth... walking on the Moon looks bouncy because the Moon's gravity is not as strong as the Earth's, so people take longer to fall back down when they are up in the air.

## Questions

1. How many people were on the first moon landing mission?
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2. Why does the moon look like it lights up when it doesn't?
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3. What is a satellite?
$\qquad$
4. How much colder is the Moon at night than in the daytime?
$\qquad$
5. What causes the different phases of the Moon?
$\qquad$
6. Where does the Moon go in the daytime?
$\qquad$
7. How long does it take the Moon to orbit the Earth?
$\qquad$
8. How far did Neil Armstrong travel to get to the Moon?
$\qquad$
9. Work out how long it would take a car travelling at 70 mph to get to the Moon.
a. In whole hours $\qquad$ b. In whole days
$\qquad$
10. Read the following sentence:
"Only 12 people have ever walked on the Moon!"
Why has an exclamation mark been used in this sentence?
$\qquad$
11. Why does the text start with asking questions?

## Answers

1. How many people were on the first moon landing mission?

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

It reflects the Sun's light/rays
3. What is a satellite?

Something that orbits a larger object
4. How much colder is the Moon at night than in the daytime?
$260^{\circ} \mathrm{C}(107+153)$
5. What causes the different phases of the Moon?

The changing angle between the Sun, Earth and Moon.
6. Where does the Moon go in the daytime?

Nowhere - it stays in the daytime sky
7. How long does it take the Moon to orbit the Earth?

About 28 days/4 weeks/27.3 days/29-30 days (The range is because it depends on the position of the Earth.)
8. How far did Neil Armstrong travel to get to the Moon?

238857 miles
9. Work out how long it would take a car travelling at 70 mph to get to the Moon.
a. In whole hours

3412 hours (238857 $\div 70$ )
b. In whole days

142 days (3412 $\div \mathbf{2 4}$ )
10. Read the following sentence:
"Only 12 people have ever walked on the Moon!"
Why has an exclamation mark been used in this sentence?
An exclamation mark has been used in this sentence to show that this is an impressive fact.
11. Why does the text start with asking questions?

The text started with questions to hook the reader in and make them think about the Moon before they read more about it.

