

STARDOME OBSERVATORY & PLANETARIUM FACTS, RESOURCES AND ACTIVITIES ON...

OUR NEIGHBOUR IN SPACE

Have you ever looked up at night and noticed a big, bright Moon in the sky? Our Moon is Earth's closest neighbour in Space. It looks like a giant circle in Space but it is actually round like a ball. Our Moon goes around Earth every 28 days which we call an orbit.

As the Moon orbits it looks like the shape of the Moon changes. Sometimes it looks like a circle and sometimes it looks like a banana!

But, the Moon does not change shape and does not make its own light. Instead, the Moon reflects light from the Sun. It has a daytime, and a nighttime, just like Earth. The daytime side faces our Sun, and the nighttime faces away. As the Moon goes around Earth, we can see more of the daytime side or more of the nighttime side, which makes it look like it is changing shape. The Moon is very bright, and you can even see it during the day if you know where to look!

The Moon has lots of bumps on it. We call these Moon craters. There are also lots of mountains on the Moon, just like mountains on Earth. The highest mountain on the Moon is even higher than Mt. Cook here in New Zealand! The Moon is still very different to Earth. There is no air on the Moon to breathe so you would need to wear a space suit to survive. It is very hot during the day and very cold during the night. There is no atmosphere like Earth so there is nothing to protect you from the Sun's heat.

Most planets have moons, some have over 60 moons. Earth is the only planet that has just one moon, which makes our Moon special.

Check out these other resources...

➔ <https://space-facts.com/the-moon/>

➔ <https://moon.nasa.gov/about/in-depth/>

For a great video of the Moon Phases:

➔ <https://www.youtube.com/watch?v=t6MCtB752AE>



The far side of the Moon, lit by the Sun, as it passes in front of Earth. Credit: NASA/NOAA

Our Moon is the closest thing to us in Space, but it is still 384,000 km away! It took astronauts three days to get there.



A crescent Moon. Credit: NASA

The Moon takes 28 days to go around Earth, almost one month.

Does the Moon make its own light?

Why does it look like the Moon is changing shape?

Why do I need to wear a space suit on the Moon?

DISCUSSION POINTS



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ACTIVITY

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GINGERBREAD MOON PHASE COOKIES

Learn about the Moon phases, and why it looks like the Moon is changing shape by combining Space with sweet treats!

This recipe makes approximately 50 Moons with a 5cm circle cookie cutter, but the number of Moons will depend on the size of the cutter. The recipe can be made well in advance. The dough can be wrapped in cling-film and frozen. Allow to thaw in fridge overnight before using.

COOKIES

150g butter
130g caster sugar
1 egg
180ml golden syrup
450g plain flour
½ tsp baking powder
1 tsp bicarbonate of soda
1 tsp salt
1 tsp ground ginger
½ tsp ground cloves
½ tsp ground cinnamon

ICING

2 cups icing sugar
¼ tsp butter, softened
2 tbsp boiling water
¼ tsp vanilla essence

METHOD

Cream butter and sugar using an electric beater until light and fluffy. Add the egg and golden syrup and beat until smooth. Mix in flour, baking powder, soda, salt, ginger, cinnamon and cloves.

Divide the dough into four balls, wrap in clingfilm, refrigerate for at least one hour.

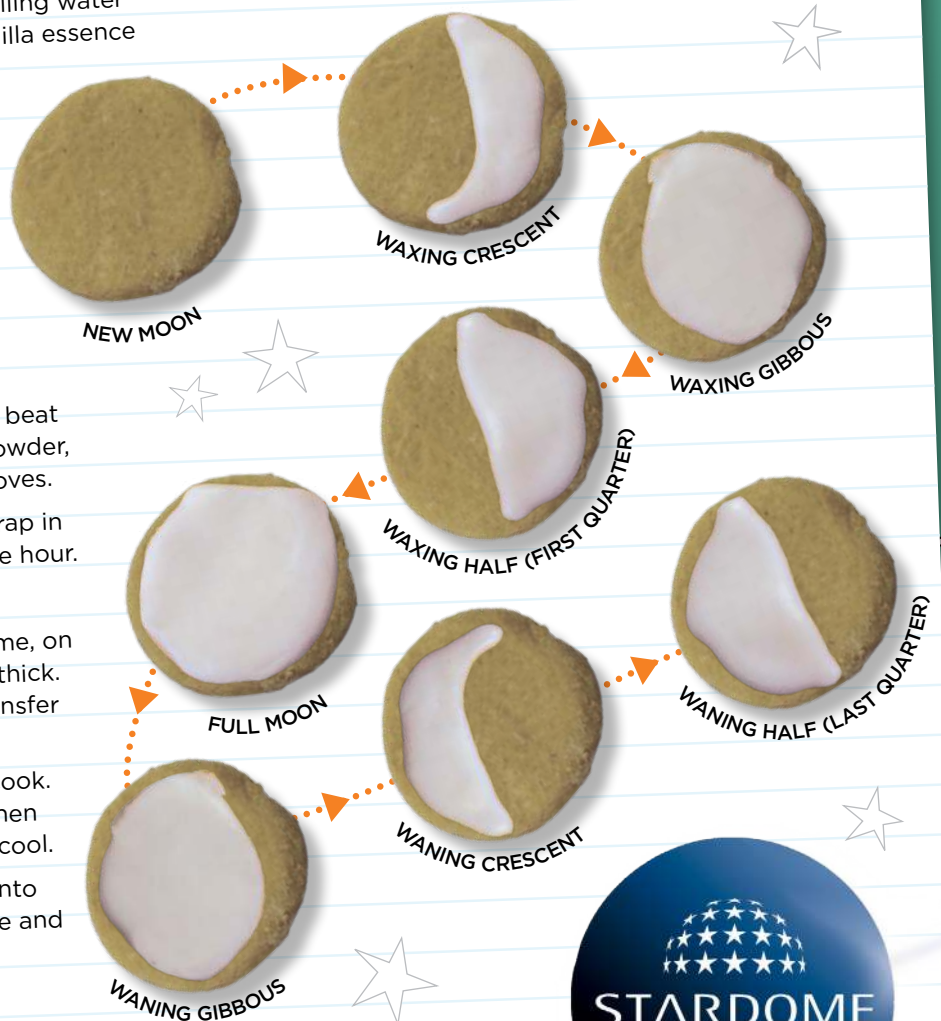
Preheat the oven to 190°C.

Roll out balls of dough, one at a time, on a floured work surface, until 3mm thick. Cut out Moon shapes, carefully transfer to baking trays.

Bake for 10-15 mins. Do not over-cook. Allow to cool on tray for 5 mins, then transfer to racks until completely cool.

For the icing, sift the icing sugar into a bowl. Add butter, vanilla essence and sufficient boiling water to mix to a spreadable consistency.

Decorate to match the Moon phases.



Take a photo of your activity and send it to us.
We'd love to see it! education@stardome.org.nz

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