



The Planets

twinkl

Aim

- I can name and describe features of the planets in our solar system.
- I can order the planets in our solar system.

Success Criteria

- I can name the planets in the solar system with support.
- I can name the planets in the solar system independently.
- I can describe some features of the planets.
- I can place the planets in the solar system in the correct order.

Ideas about the Planets



Let's find out and share what we already know.

In groups answer the following questions:



Solar System Vocabulary



Sun

star

planet

Mercury

Venus

Earth

Jupiter

Saturn

Uranus

Neptune

Mars


rotate

axis

sphere /
spherical

orbit

Look at the facts about each planet




Venus

2nd planet from the Sun

108.2 million km from the Sun

Discovered by:	Babylonian astronomers
Discovery date:	1700 BC
Named after:	Roman goddess of love
Temperature:	462°C
Colour:	Clouds of sulphuric acid make it look a burnt yellow colour.
Made of:	Rock
Moons:	0
Days in a year:	243
Interesting Fact:	Venus rotates the opposite way to the Earth (anti-clockwise).



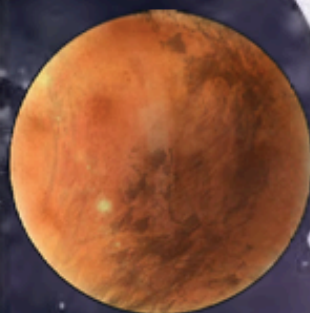
Mercury

1st planet from the Sun

46-70 million km from the Sun

Discovered by:	Assyrian astronomers
Discovery date:	1400 BC
Named after:	Roman god of messengers
Temperature:	-173°C (out of sunlight) to 420°C (in sunlight)
Colour:	Grey
Made of:	Iron and rock
Moons:	0
Days in a year:	88
Interesting Fact:	There are wrinkles on the surface which are called Lobate Scarps.

Mars



4th planet from the Sun

227.9 million km from the Sun

Discovered by: Egyptian astronomers

Discovery date: 2000 BC

Named after: Roman god of war

Temperature: -87°C to -5°C

Colour: Red

Made of: Rock (basalt)

Moons: 2; Phobos and Deimos

Days in a year: 687

Interesting Fact: Mars has the largest volcano in the solar system. Olympus Mons is 600 km wide and 21 km tall!

Earth



3rd planet from the Sun

149.5 million km from the Sun

Named after: It's not! Earth is the only planet not named after a Roman or Greek God. The word Earth comes from both English and German words, 'eor(th)e/ertha' and 'erde', which mean 'ground'.

Temperature: -88°C to 58°C

Colour: Blue, green, white

Made of: Rock and metal

Moons: 1

Days in a year: 365.25

Interesting Fact: The Earth is the only known planet that supports life. In order for this to happen, a planet needs to be in the 'Goldilocks zone'; which the Earth is!

Saturn



6th planet from the Sun

1.433 billion km from the Sun

Discovered by: Assyrian astronomers

Discovery date: 800 BC

Named after: Roman god of many things including time and wealth

Temperature: -139°C

Colour: Mostly yellowish brown

Made of: Gas (mainly hydrogen and helium)

Moons: 62; including Titan, Rhea and Enceladus

Days in a year: 10756

Interesting Fact: Saturn's rings are made up of ice and rocks. The exact number of rings is still debated and there is no firm answer yet!

Jupiter



5th planet from the Sun

778.5 million km from the Sun

Discovered by: Babylonian astronomers

Discovery date: 800-700 BC

Named after: King of the Roman gods

Temperature: -87°C to -5°C

Colour: White, orange, red, brown and yellow

Made of: Gas (mainly hydrogen and helium)

Moons: 67; including Io, Europa and Callisto

Days in a year: 4333

Interesting Fact: Days are shorter in Jupiter – it takes 9 hours and 55 minutes to turn on its axis while it takes Earth 24 hours.

★



Discovered by: Urbain Le Verrier and Johann Galle

Discovery date: September 23rd, 1846

Named after: Roman god of the seas

Temperature: -201°C

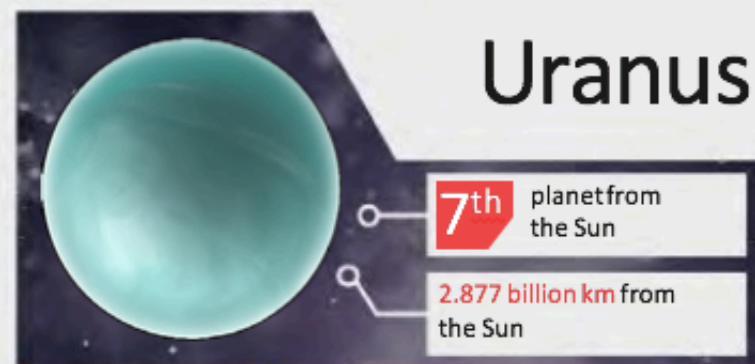
Colour: Blue

Made of: Gas (mainly hydrogen and helium)

Moons: 14; including Triton

Days in a year: 60190

Interesting Fact: The Great Dark Spot was the name of storm on Neptune – it lasted 5 years!



Discovered by: William Herschel

Discovery date: March 3rd, 1781

Named after: Greek god of the sky

Temperature: -197°C

Colour: blue-green

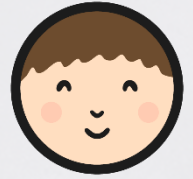
Made of: Ices (like water, ammonia and methane)

Moons: 27; including Oberon and Titania





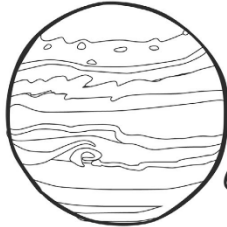
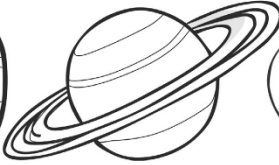
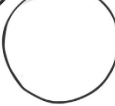

Days in a year: 30687

Interesting Fact: Uranus is tilted 98° so it rotates in the opposite direction to the other planets in the solar system.

Planetary Poster



Colour in and label the planets. In the text box write an interesting fact you have learnt about the planet in the lesson. Make sure that all the facts are not about the same thing – i.e. number of moons.

<p>Name of planet: _____</p> <p>Fact: _____</p>	<p>Name of planet: _____</p> <p>Fact: _____</p>	<p>Name of planet: _____</p> <p>Fact: _____</p>	<p>Name of planet: _____</p> <p>Fact: _____</p>
			
			
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Design activity

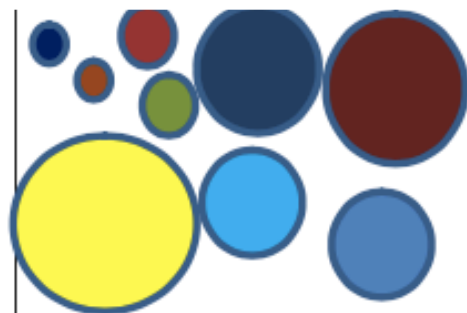
Instructions for making an orrery

Equipment

- A round piece of cardboard about 30cm in diameter
- Thick coloured card
- Scissors
- Sticky tape
- String or wool
- Paints and paintbrushes
- A geometry compass

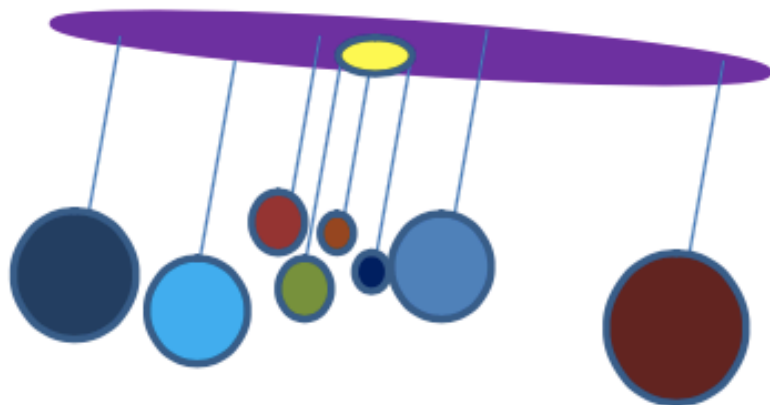
Instructions

	<p>1. Mark the centre of the card circle and use the compass to draw the 'orbits' of the eight planets. Make sure that the first four planets are towards the centre (the sun) then ensure you have a gap (asteroid belt) before drawing the four outer orbits towards the edge of the circle.</p>
<p>2. Punch a hole on each orbit (this is where you will hang your planets) and one at the centre of the circle for the sun. Check online where the planets currently are positioned if you like and try to replicate this with our holes</p> <p>(http://www.theplanetstoday.com/)</p>	



3. Create your Sun and each of the planets by cutting out the coloured card ensuring they are all relatively sized to one another - they won't be to scale as this is not possible. Paint the planets according to their appearance - think back to your planet painting during the last session.

4. Label each planet decoratively, then make a small hole toward the top of each. Tie string or wool through this hole then attach your planets to their correct 'orbit'.



5. Tie string to the top of the card circle so that you can hang your orrery.

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