

Exploring the solar system

Exploring the solar system

Manned vs unmanned missions

What are the pros and cons?

Venus – Earth's sister planet

Atmosphere:

Venus: 96% CO₂ , 3% N₂,

Earth: 78% N₂, 21% O₂, 1% Ar

Comets

Small icy objects which orbit the sun

The **nucleus** of the comet is mostly rock surrounded by ice

The **coma** is an atmosphere of water and dust around the nucleus.

The **tail** is a trail of gas and dust given off when the comet is near to the sun

Comets

Short period comets - orbit in less than 200 years

They come from the centaurs and the Kuiper belt

Jupiter family comets – orbit less than 20 years

Halley type comets – 20 – 200 years

Comets

Long period comets - orbit is greater than 200 years

They originate in the Oort cloud

Moons

Moons orbit planets

Capture theory

Collision Theory

Moons

Moons orbit planets

Mars has 2 moons – Phobos and Deimos

Discovered 1877

Might be 'captured' asteroids from the asteroid belt
Or may have been formed from rocks after a collision

Moons

Neptune has 14 moons – there were many more

Triton is a 'captured' satellite

It's capture into the orbit probably destroyed many of the original moons of Neptune

Triton's orbit is retrograde

Planetary rings

Saturn has the most prominent rings.

There are also rings around Jupiter, Uranus and Saturn

Rings are made from dust and rock which hasn't joined up
to make a moon

It doesn't join up because it's inside the **Roche limit** for
that planet