

# Connections Knowledge Organiser

## Key Definitions





	Term	Definition
1	Star	A burning mass of gas that makes heat and light energy (E.g. the sun).
2	Planet	An astronomical object that orbits a star and does not emit its own light. It can be terrestrial (dense and rocky) or Jovian (gas giant).
3	Gravity	The force that attracts an object towards a larger object.
4	Solar System	A star with objects (such as planets) revolving around it.
5	Light-year	The distance light travels in a year (≈9.46 trillion km).
6	Galaxy	An extremely large group of stars and planets that extends over many billions of light-years, held together by gravity (E.g. Milky Way and Andromeda).
7	Universe	All of space and everything in it (including stars, planets and galaxies).
8	Satellite	An object either natural (E.g. a moon) or man-made, that orbits around a planet.
9	Orbit	A curved path of a planet, satellite or spacecraft around an object such as the sun due to the attraction of gravity.
10	Vacuum	A space with no air.
11	Asteroid	Irregularly shaped rock that orbits the sun, mostly occurring in the asteroid belt.
12	Meteor	A mass of rock that burns after entering the Earth's atmosphere (meteorite when the rock has cooled on Earth)
13	Comet	A mass of ice and dust that has a long, luminous tail of gas.
14	NASA	The National Aeronautics and Space Administration – a US agency responsible for the exploration and study of space.
15	Astronomy	The branch of science that deals with space and the physical universe as a whole.

## Key Person



Katherine Johnson (1981-2020)

## Order of the Planets

- Mercury 
- Venus 
- Earth 
- Mars 
- Jupiter 
- Saturn 
- Uranus 
- Neptune 



## Space Exploration

### Humans in space

1	Laika	The first animal in space was a dog aboard Sputnik 2 in 1957.
2	Yuri Gagarin	First human in space 1961, aboard the Vostok 1.
3	Neil Armstrong	First person on the moon in 1969 aboard Apollo 11.
4	International Space Station (ISS)	Collaboration launched in 1998.

### Solar System Missions

1	Sputnik 1	The first man-made satellite to orbit the Earth, launched by the Soviet Union in 1957.
2	Mars Landers and Rovers	First launched in 1975 with plans to launch again in 2020 as part of the mission to get man on Mars by 2030.
3	Galileo	Launched 1989 exploring Jupiter and its moons.
4	Hubble Telescope	Launched 1990 - captured images of both our own and distant galaxies.
5	Cassini	Launched 1997 - exploring Saturn and its rings.

## Ideas for Home

Things to try at home to support learning:

- Research some information about a specific planet
- Plan a space holiday with Virgin Galactic
- Keep a moon diary
- Write a prediction about what might be found on Europa
- Draw a timeline of key Space events
- Create a sundial to study shadow changes

## Key Facts

- There are 24 hours in a day
- There are 365 ¼ days in a year
- The moon takes 28 days to orbit the Earth
- Earth is on a 23.5° axis

## Moon Phases

