Science Project	Overview Year	5 Earth and	Space
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Previous learning:	Preparing for learning:	
 Observe changes across the four seasons. (Y1 - Seasonal changes) Observe and describe weather associated with the seasons and how day length varies. (Y1 - Seasonal changes) 	 Gravity force, weight = mass x gravitational field strength (g), on Earth g=10 N/kg, different on other planets and stars; gravity forces between Earth and Moon, and between Earth and Sun (qualitative only). (KS3) Our Sun as a star, other stars in our galaxy, other galaxies. (KS3) The seasons and the Earth's tilt, day length at different times of year, in different hemispheres. (KS3) The light year as a unit of astronomical distance. (KS3) 	Bespoke to our school: Children are explicitly taught the tier 2 and 3 vocabulary.
Vocabulary: Earth, Sun, Moon, (Mercury, Jupiter, Saturn, Venus, Mars, solar system, spherical bodies, rotation, satellite	Uranus, Neptune), spherical, solar system, rotates, star, orbit, planets	•

Misconceptions:

- The Earth is flat
- The Sun is a planet
- The Sun rotates around the Earth
- The Sun moves across the sky during the day
- The Sun rises in the morning and sets in the evening
- The Moon appears only at night
- Night is caused by the Moon getting in the way of the Sun or the Sun moving further away from the Earth.

Maths links:

Measurement: Know how to convert units of metric measure (e.g. km to m, kg to g, I to mI)- linking to scales of planet sizes and distances Statistics : Identify the necessary information in tables (including timetables) and be able to complete them- for distances , scaling etc of planetary system

Famous Scientists to possibly study:

Stephen Hawking 1942 – 2018 (structure of the universe) <u>https://bpes.bp.com/super-scientists-stephen-hawking</u>

Explorify links:

ISS – Big question

Space objects
There was no night
Maps
Out of the world
Earth
Possible careers/jobs:
Astronomer (studies space), Astronaut (travels to space to carry out research), Astronautical engineer (develops spacecraft), Astronomer (studies space)