

	<p>Year group: Reception</p>	<p>Area/topic: Earth and space</p>
<p>(objectives from NC/ELG/Development matters)</p> <ul style="list-style-type: none"> *Explore the natural world around them. (Understanding the world) *Describe what they see, hear and feel whilst outside. (Understanding the world) 		

Prior learning	Future learning
<p>*Explore and respond to different natural phenomena in their setting and on trips. (Birth to three)</p>	<ul style="list-style-type: none"> *Describe the movement of the Earth, and other planets, relative to the Sun in the solar system. (Y5 - Earth and space) *Describe the movement of the Moon relative to the Earth. (Y5 - Earth and space) *Describe the Sun, Earth and Moon as approximately spherical bodies. (Y5 - Earth and space) *Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky. (Y5 - Earth and space)
<p>Working scientifically & encouraging scientific enquiry</p>	
<p>Classification & identification</p> <ul style="list-style-type: none"> *Children to name some of the planets. <p>Observation</p> <ul style="list-style-type: none"> *Children to make observations of the sky, sun and moon. <p>Comparative testing</p> <ul style="list-style-type: none"> *Make and testing air-propelled rockets to find out which is the 'best'. <p>Pattern seeking</p> <ul style="list-style-type: none"> * Find simple patterns in how light levels and temperature change with the movement, or obscuring of, the Sun. <p>Research using secondary sources</p> <ul style="list-style-type: none"> *Sharing books and video clips about space exploration including video clips of astronauts walking on the Moon and floating in the space station. 	

- * Find out about the Solar System, stars and space travel.
- * Find out about nocturnal animals.

What pupils need to know or do to be secure	
Key knowledge and skills	Possible evidence
<p>Children will be taught to:</p> <ul style="list-style-type: none"> * Observe that the Sun appears to move across the sky. * Observe that it is warmer and brighter when the Sun is shining than when it is behind the clouds. * Observe that they can see the Moon at night and sometimes in the day. * Explain that they can only see the stars at night. * Observe distant objects, including the Moon, with binoculars or a small telescope. * Talk about what happens and what they can see and hear in the daytime and at night. * Sort small world animals into those that are active in the daytime and those that are active at night. * Begin to ask questions about space and space travel. 	<ul style="list-style-type: none"> * Children can use vocabulary correctly to name the Sun, Moon and stars. * Children can talk about how the Sun, Moon and stars are different to Earth. * Can identify differences between day and night. * Can talk about animals that are active at night. * Can talk about some differences between being on Earth and travelling in space.
Key vocabulary	
<p>Sun, Moon, Earth, star, planet, sky, day, night, space, round, bounce, float</p> <p>Expose children to supplementary vocabulary such as: Sunrise, sunset, astronaut, astronomer, constellation, orbit, nocturnal, slow-motion, magnify</p>	
Common misconceptions	Books linking to this area
<ul style="list-style-type: none"> * The Earth is flat * The Moon and Sun are discs * Stars are a pointed 'star' shape * The Moon appears only at night * At night, the Sun is turned off * At night, the Sun goes behind the clouds 	<ul style="list-style-type: none"> * Twinkle, twinkle little star * Whatever Next! by Jill Murphy * Astro-Girl by Ken Wilson-Max * Look Up! by Nathan Bryon * How to Catch a Star by Oliver Jeffers * Owl Babies by Martin Waddell
Memorable first hand experiences	Opportunities for communication
<ul style="list-style-type: none"> * Making model planets e.g. with papier-mâché or Modroc and balloons * Modelling a cratered moon landscape with papier-mâché or Modroc * Joining materials to make model rockets, Moon buggies/Mars rovers and space 	<ul style="list-style-type: none"> * Children to be given opportunities for communication with partners, groups and whole class to discuss as completing practical activities and also to share findings.

stations

*Making and testing simple air-propelled card or plastic bottle rockets

*Adults to model and encourage discussion during play.

*Through the use of Explorify.

Dereham Church of England Infant and Nursery Academy

Reasonable adjustments for pupils with SEND

Communication and Interaction

- *Visual aids, pictures of equipment with words labelled, word mats with pictures for key words in that lesson.
- *Freedom to explore scientific equipment and investigate in own way.
- *Hands on experiences to encourage communication and interaction with others.
- *Pre teaching any new vocabulary.

Cognition and Learning

- *Opportunity for lots of hands on exploration and verbally sharing thoughts and ideas.
- *Freedom to explore scientific equipment and processes.
- *Pre teaching new vocabulary or concepts.
- *Activities adapted if needed for safety and ease.
- *Visual aids, pictures of equipment, mats with key words and pictures
- *Learning recorded through photos and adult quotes, children not expected to write for recording their understanding.
- *Using working walls to aid learning and remind of previous learning.

Social, Emotional and Mental health

- *Awareness of individual needs, any potential triggers within the curriculum and the child's background.*
- *Pre prepare children for any activity they could find triggering or difficult in some way.*
- *Practical activities or experiments to be completed within a smaller group or 1:1 if needed.*
- *If the class are sharing their learning within a large group, take the child in a smaller focus group if they struggle with social situations.*
 - *Adjustments made where needed to suit individual.*

Sensory and Physical

- *Adult support with any practical activities.*
- *Awareness of the individual's likes or dislikes and their own reactions to sensory activities.*
- *If a child enjoys sensory activities, then plan for this wherever possible within the lesson.*