



Wider Curriculum Unit Plan for Home learning

Subject: Science

Unit: Earth and Space

Year: 5

Session	Lesson task
Week 1 Session 1	<p>What are solar and lunar eclipses?</p> <ul style="list-style-type: none">• In this lesson, we will learn about the Sun, the Earth and the Moon. We will also learn about satellites, including natural and artificial satellites. We will discuss the lunar phases and finally we will learn about solar and lunar eclipses.• Watch this lesson about the phases of moon and eclipses.• Record your responses to the activities in the lesson.
Week 1 Session 2	<p>What is the solar system?</p> <ul style="list-style-type: none">• In this lesson, we will discuss what we can find in our solar system. We will also discuss what a planet, moon and space dust are. Finally, we will examine the differences between asteroids, meteoroids, meteors and meteorites.• Watch this lesson about the solar system.• Record your responses to the activities in the lesson
Week 2 Session 3	<p>What planets are in our solar system and what is it like on them?</p> <ul style="list-style-type: none">• In this lesson, we will learn about the eight different planets in our Solar System.• Watch this video lesson about the planets.• Record your responses to the activities in the lesson
Week 2 Session 4	<p>What are stars and constellations</p> <ul style="list-style-type: none">• In this lesson, we will discuss how stars, including the Sun, were made. We will see how humans have investigated more about stars since the invention of telescopes. Finally, we will learn about constellations• Watch this video lesson about stars.• Record your responses to the activities in the lesson
Week 3 Session 5	<p>What is a year? Why do we have seasons?</p> <ul style="list-style-type: none">• Watch the BBC clip about seasons and length of a year• Watch the two links on this page to learn more.• In your own words using diagrams to help, explain the 2 key questions. <p>What is a year? Why do we have seasons? <i>Challenge – how does this influence farmers?</i></p>
Week 3 Session 6	<p>Why do we have day and night and do their lengths change?</p> <ul style="list-style-type: none">• Watch the BBC clip explaining why we have day and night.• The longest and shortest days of the year are called solstice – find out more about what this is and why we have them here.• Create your own explanation and diagram to explain why we have fewer hours of sunlight in December than June in the UK. <p><i>Challenge; Explain how the different times of the day effect the different parts of the world.</i></p>
Week 4 Session 7	<p>Why do we have shadows and how do they change during the day?</p> <ul style="list-style-type: none">• Watch each of the clips on this page about changing shadows, there are a series of 6 short videos.• If you have some sunshine and are able to, you could try out the activities shown in the video.• Answer the key question in your own words using diagrams to help you.

<p>Week 4 Session 8</p>	<p>What is the universe and what is it made from?</p> <ul style="list-style-type: none"> • <i>In this lesson, we will investigate what the universe is. We will also discuss galaxies, including the galaxy we are in: the Milky Way. Finally, we will discuss and investigate the Big Bang Theory as an explanation for how the universe began.</i> • Watch the video lesson about the universe. • Record your responses to the activities in the lesson
<p>Week 5 Session 9</p>	<p>What do astronomers do?</p> <ul style="list-style-type: none"> • <i>In this lesson, we will discover the works of famous astronomers and their contributions to society.</i> • Watch the video lesson about astronomers. • Record your responses to the activities in the lesson
<p>Week 5 Session 10</p>	<p>Scientists and space</p> <ul style="list-style-type: none"> • Look at the posters in the support below. • Read about the following scientists and research more about them: Dr Gladys West and Dr Maggie Aderin-Pocock What is the thing that you found most interesting about them? • Research and present on one scientist who has contributed to the science and space. You may choose one of these ladies or someone else.
<p>Week 6 Session 11</p>	<p>How have our ideas about the universe changed over time?</p> <ul style="list-style-type: none"> • <i>In this lesson, we will look at how our ideas of the universe have changed over time. We will learn about the geocentric model, the heliocentric model and elliptical orbits. We will draw the different models of the universe and make comparisons between them.</i> • Watch this video about the work of Nicolaus Copernicus and theory of the universe. • What do you think the main 3 points about his work? • Watch lesson about the history of ideas about the universe • Record your learning following the lesson's activities.
<p>Week 6 Session 12</p>	<p>Who was Katherine Johnson and why is she remembered?</p> <ul style="list-style-type: none"> • Watch the lesson about Katherine Johnson and her life • Record your learning in the lesson's activities • Carry out some of your own research and find out more about her achievements.
<p>Week 7 Session 13 and 14</p>	<p>Who was Stephen Hawking?</p> <ul style="list-style-type: none"> • Watch the lesson about Stephen Hawking and his achievements. • Create your own science presentation You will need to create your own script and presentation as explained in the lesson to share with others. • You can be as creative as possible in how you do this. Take what would be 2 lessons to do a great job in your script and presentation.

Session Resources

Week 5 session 10

Year 5 Earth and Space

Dr Gladys West



- an American mathematician born in 1930
- she is one of the reasons you can get driving directions from your phone or tag a photo location on Instagram!
- often called the "Hidden Figure" behind the GPS system
- her work was not acknowledged until years after she did it
- did an award-winning study on Pluto's motion relative to Neptune
- she discovered for every two orbits Pluto makes, Neptune makes three

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Dr Maggie Aderin-Pocock MBE



- is a British space scientist and science educator
- led projects to make instruments placed on telescopes or satellites to inspect the Earth and the Universe
- worked on missile warning systems at the Ministry of Defence hand-held landmine detection instruments
- is a TV presenter and science consultant - BBC's The Sky at Night; Do We Really Need the Moon?: How Satellites Rule Our World
- was born in London to parents who emigrated from Nigeria in the 1950s
- struggled with reading and writing due to dyslexia