

Science		Space		History	
1	Defining the solar system and what it contains, examining the different objects within a solar system.	A KS2 cross-curricular topic for Year 5 and 6		1	Discovering how and where and when the telescope was invented and how they work.
2	Exploring how the rotation of the Earth around the sun creates day and night.			2	Finding out about the Space Race between the USSR and USA and space exploration between 1940 and 1970.
3	Exploring the phases of the moon and how the moon appears to change shape at different times.	DT		3	Exploring the details of the Apollo 11 mission of 1969, the moon landing and who was involved.
4	Finding out the names of the planets in our solar system and discovering facts about them.	1	Exploring examples of past and present sundials before designing, making and evaluating a sundial.	4	Examining methods of space exploration used today.
5	Examining the different life stages of a star and exploring the names and shapes of some famous constellations.	2	Examining the components of a spaceship and using this understanding to make a model of a spaceship.	Art	
Music		RE		1	Exploring the world of origami and using this understanding to make an origami star.
1	Composing a piece of music to represent the journey of a spaceship using tuned and untuned instruments.	1	Comparing creation stories with the Big Bang theory and why there are different explanations of how the universe began.	2	Creating a fictional planet using mixed media.
2	Listening and responding to Holst's <i>The Planets</i> .	Computing		1	Using computers and the internet to research and write the biography of a famous astronaut.

Space : Cross-Curricular Topic : Year 5/6

SCIENCE				
	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To find out about the sun and the solar system.	Children begin the topic by mind-mapping their existing knowledge of the solar system and the different objects found within it. They then go on to investigate these objects and explore the differences between asteroids and comets as well as facts about the sun. The children must then use this knowledge to define the different topic vocabulary, including matching facts to the relevant objects.	<ul style="list-style-type: none"> Do children understand what the solar system is and what it is made up of? Do children know that the sun is made up of different layers and sections? Can children ask questions about space and the solar system that they would like to find the answers to? 	<ul style="list-style-type: none"> Slides Worksheet 1A/1B/1C Dictionaries Fact Cards (FSD? activity only) Fact Hunt sheets (FSD? activity only)
Lesson 2	To find out the relationship between the Earth and the sun and why we have night, day and seasons.	This lesson explores the phenomenon of the Earth's rotation causing day and night and how the tilt of the Earth's axis causes the seasons. The children are encouraged to use their knowledge of the Earth's shape and movements to help them explain these events using diagrams.	<ul style="list-style-type: none"> Do children that the Earth rotates on its axis every 24 hours? Do children know that the Earth orbits the sun once a year? Can children explain why we have night, day and seasons? 	<ul style="list-style-type: none"> Slides Worksheet 2A/2B/2C Video recorders if desired (FSD? activity only)
Lesson 3	To find out about the moon and why it changes shape.	Children investigate the moon as Earth's natural satellites and discover why it appears to change its shape over a 28-day cycle. Using diagrams and lunar calendars, the children explain how the sun's light reflects off the moon's surface, partially lighting it to give us the different phases of the moon.	<ul style="list-style-type: none"> Do children know that the moon is a natural satellite of the earth? Do children know that the moon reflects the sun's rays? Can children explain why the moon appears to change shape during the lunar cycle? 	<ul style="list-style-type: none"> Slides Worksheet 3A/3B/3C Books, the internet, etc. (FSD? activity only) Challenge Cards (FSD? activity only)
Lesson 4	To find out about the planets in the solar system.	Children examine the layout of the solar system including the order of the planets, grouping them into inner and outer planets, and the position of the asteroid belt. They learn facts about each planet and are challenged to think of mnemonics to help them remember the order of the planets. They use this to create fact books about the solar system or classify the planets.	<ul style="list-style-type: none"> Can children name the eight planets in our solar system? Can children describe some of the features of the different planets? Can children use a variety of sources of information to find out about the planets? 	<ul style="list-style-type: none"> Slides Information Sheet Worksheet 4A Books, CD ROMs, etc. Planet Fact Cards (FSD? activity only)
Lesson 5	To find out what stars are and to investigate the constellations.	Explore the life cycle of a star and how they are made and die. Look into why stars twinkle and shine brightly before using this knowledge to pick out some of the brightest stars in the sky which make up famous constellations. The children are then challenged to pick out constellations and draw them or research them to put into a class constellation book.	<ul style="list-style-type: none"> Do children know what a star is? Do children know what a constellation is? Can children recognise some of the constellations? 	<ul style="list-style-type: none"> Slides Worksheet 5A/5B Star Charts Constellation Cards (FSD? activity only) Black paper (FSD? activity only) Sequins and silver pens/thread (FSD? activity only)

Space : Cross-Curricular Topic : Year 5/6

HISTORY				
	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To learn about the discovery of the telescope and how it changed astronomy.	Children discover the impact of the invention of the telescope and how Galileo became known as one of the fathers of modern science. After investigating how a telescope works the children will look at what discoveries this led to and how we use powerful telescopes today to discover more and more about space.	<ul style="list-style-type: none"> Do children know how and when the telescope was developed? Can children describe who Galileo was and what he contributed to astronomy? Can children explain how the invention of the telescope impacted on space exploration? 	<ul style="list-style-type: none"> Slides Worksheet 1A/1B/1C Information Sheet The Starry Messenger sheet Challenge Cards (FSD? activity only)
Lesson 2	To find out about the early years of space exploration from 1940 to 1970.	Children will explore who was involved in the space race and why it became so important for them to be part of the 'Space Race'. They discover the key events which led up to the 1969 moon landing, including the first men, women and animals in space.	<ul style="list-style-type: none"> Can children describe some of the key events in space exploration between 1940 and 1970? Can children explain what the 'Space Race' was and how it impacted on the developments in space travel? Can children use a variety of sources of information to research space exploration during this period? 	<ul style="list-style-type: none"> Slides Worksheet 2A/2B/2C Books, CD ROMs, internet, etc. Picture Cards (FSD? activity only)
Lesson 3	To find out about the first landing on the moon.	After learning about the lead up to the moon landing in 1969 in previous lessons, the children look in more detail at this key event in history. They learn about the crew involved in landing on the moon and the things they did whilst on the moon, including famous speeches and what they brought back to Earth to study.	<ul style="list-style-type: none"> Do children know when the first men landed on the moon? Can children explain some of the details of Apollo 11's mission to the moon? Can children combine objective and subjective information to recount Apollo 11's mission to the moon? 	<ul style="list-style-type: none"> Slides Worksheet 3A/3B Fact Sheet Books, CD ROMs, access to internet, etc. New Report Checklist (FSD? activity only) Video cameras (FSD? activity only)
Lesson 4	To investigate some of the ways in which astronauts explore space today.	Reflecting on what they have learnt so far, the children are challenged to follow the journey of space exploration up to the present day. They discover the different ways astronauts and others explore space today, including the Hubble telescope, the International Space Station and many other ways.	<ul style="list-style-type: none"> Can children recognise some of the ways in which astronauts explore space today? Can children suggest ways in which these methods help us to learn more about the universe? Can children suggest ways in which previous ages have helped our understanding of space? 	<ul style="list-style-type: none"> Slides Worksheet 4A/4B/4C/4D Picture Cards Fact Cards

Space: Cross-Curricular Topic : Year 5/6

ART			
Learning Objective	Overview	Assessment Questions	Resources
Lesson 1 To be able to create an origami star.	Children explore the world of origami and paper folding. After looking at some of the different creations that can be made the children make their own twelve-point origami star following the instructions provided. They are challenged to add details and texture when making their star and think about the patterns which they can create when making it.	<ul style="list-style-type: none"> Do children know what origami is? Can children follow a process to create an origami star? Can children add colour, pattern or texture to their origami stars? 	<ul style="list-style-type: none"> Slides Help Sheet Origami squares (or squares of paper) Coloured and plain paper Rulers Access to graphical software (FSD? activity only)
Lesson 2 To create an artistic portrayal of a fictional planet.	Children are given the chance to let their imaginations flow as they are challenged to depict a recently discovered planet which holds extraterrestrial life. They are encouraged to plan the different aspects of their new planet, including the colour of the sky and the medium they would like to use to create their landscape.	<ul style="list-style-type: none"> Can children use their imagination to create an image in their minds of a fictional planet? Can children translate their ideas into images? Can children make appropriate decisions about which materials, techniques, colours and textures they will use in their work? 	<ul style="list-style-type: none"> Slides Worksheet 2A/2B Picture Cards (FSD? activity only) Art materials (according to needs)

MUSIC			
Learning Objective	Overview	Assessment Questions	Resources
Lesson 1 To be able to compose a piece of music that tells a story.	Children explore the different ways that music can express the emotions and moods needed when storytelling. Using the journey of a spaceship taking off, travelling through space and returning to Earth, the children are challenged to plan the use of instruments including pitch, tempo, dynamics and rhythm to tell the story with contrasting effects.	<ul style="list-style-type: none"> Can children identify how different pitches, rhythms, dynamics and tempos can be used to communicate different moods and effects? Can children explore, choose, organise and combine different musical ideas and instruments to convey an atmosphere and effect? Can children rehearse and perform their composition with an awareness of the audience? 	<ul style="list-style-type: none"> Slides Worksheet 1A/1B A variety of tuned and untuned instruments Access to musical software (FSD? activity only)
Lesson 2 To listen and respond to Holst's <i>The Planets</i> .	Children will learn about the life of composer Gustav Holst and the inspiration behind his music. After discovering the reasoning behind his composition of <i>The Planets</i> , the children listen to some or all of the movements and use this to inspire art or dance.	<ul style="list-style-type: none"> Do the children know who Gustav Holst was? Can children listen and respond appropriately to a piece of music using art or dance? Can children compare different pieces of music and say what they think and feel about them? 	<ul style="list-style-type: none"> Slides Holst's <i>The Planets</i> Art materials

COMPUTING			
Learning Objective	Overview	Assessment Questions	Resources
Lesson 1 To use computers to research and write the biography of a famous astronaut.	Children will reflect on the information which needs to be included when writing a biography and the most efficient ways to find this information out. Children are challenged to think about the best search terms to use when using the internet in order to find the information they need. Their understanding is then used to research and write about a famous astronaut.	<ul style="list-style-type: none"> Do the children know how to use search engines effectively to find information? Can children gather and interpret information found on the internet? Can children use text and images to present biographical information? 	<ul style="list-style-type: none"> Slides Worksheet 1A/1B Famous Astronauts sheet Worksheet 1C (FSD? activity only)

DT			
Learning Objective	Overview	Assessment Questions	Resources
Lesson 1 To design, make and evaluate a sundial.	After investigating the history and uses of sundials, the children use existing designs to inspire their own. They then use this plan to carefully measure and mark out their sundial before decorating and evaluating their design.	<ul style="list-style-type: none"> Can children design a sundial and plan how they will construct it? Can children measure, mark out and assemble components to create a sundial? Can children evaluate their finished sundials, stating how they think and feel about them? 	<ul style="list-style-type: none"> Slides Worksheet 1A/1B/1C/1D Picture Cards (FSD? activity only) Cardboard Protractors Compasses Rulers Craft knives/scissors Paint/decorative materials
Lesson 2 To be able to design, make and evaluate a model of a spaceship.	Children compare the designs of real space shuttles to pick out what they have in common and think about how this might influence the design of their own model. After deciding on a design and method for creating their model the children use a variety of materials to make their model, evaluating their creations afterwards.	<ul style="list-style-type: none"> Can children generate ideas and develop a design for a model of a spaceship? Can children work with a variety of materials and techniques? Can children evaluate their work and say how they think and feel about their finished product? 	<ul style="list-style-type: none"> Slides Worksheet 2A/2B/2C/2D Picture Cards Materials (e.g. card, art straws, paper cups, tin foil, pipe cleaners, paper, cardboard tubes, paints, etc.) Tools (e.g. scissors, glue, rulers, craft knives, etc.)