



## Year 2 Science Subject Map

<b>Autumn Term One Living in Habitats</b>		
<b>Lesson</b>	<b>Skill focus</b>	<b>Context</b>
Lesson 1 WALT: To be able to identify things that are living, things that are dead and things that have never been alive.	<ul style="list-style-type: none"><li>• Can children identify living things?</li><li>• Can children identify living things that have died?</li><li>• Can children identify things that have never been alive?</li></ul>	Children will begin to identify some life processes which indicate that animals and plants are alive. They will then identify and sort objects and organisms into group: living and non-living things
Lesson 2 WALT: To understand that living things need to live in suitable habitats.	<ul style="list-style-type: none"><li>• Do children know what a habitat is?</li><li>• Do children know that animals and plants need to live in habitats they are suited to?</li><li>• Can children match animals and plants to suitable habitats?</li></ul>	Children will learn about what a habitat is, and what animals and plants need to survive in them. They will then identify and group animals by their habitats.
Lesson 3 WALT:	<ul style="list-style-type: none"><li>• Can children identify some animals in a seaside habitat?</li></ul>	Children will identify features of seaside habitats and discuss which plants and animals might live in it, and

<p>To explore the plants and animals that live in seaside habitats.</p>	<ul style="list-style-type: none"> <li>• Can children identify some plants in a seaside habitat?</li> <li>• Do children recognise how animals and plants in a seaside habitat are linked together?</li> </ul>	<p>where. They may then either identify and name a variety of organisms, or sort organisms into those found in seaside habitats, and those found in other habitats.</p>
<p>Lesson 4 WALT: To be able to explore plants and animals in an unfamiliar habitat.</p>	<ul style="list-style-type: none"> <li>• Can children name some different types of habitats?</li> <li>• Can children describe different types of habitats</li> <li>• Can children compare habitats and the animals and plants that live in them?</li> </ul>	<p>Children will identify characteristics of animals which give clues about the habitats they live in. They will then discuss what a variety of habitats are like, then either describe what they provide for the organisms that live in them, or how organisms are adapted to suit their habitat.</p>
<p>Lesson 5 WALT: To be able to explore and describe a micro-habitat.</p>	<ul style="list-style-type: none"> <li>• Do children know what a micro-habitat is?</li> <li>• Can children name some micro-habitats?</li> <li>• Can children identify and describe some of the animals that live in micro-habitats?</li> </ul>	<p>Children will learn about micro-habitats and the organisms that live in them. They may then either explore micro-habitats outside, or describe and categorise given sets of mini-beasts according to some of their characteristics.</p>
<p>Lesson 6 WALT: To explore food chains in a habitat.</p>	<ul style="list-style-type: none"> <li>• Do children know that animals and plants in a habitat are dependent on each other for food?</li> <li>• Can children construct a simple food chain?</li> <li>• Can children construct food chains that include humans?</li> </ul>	<p>Children will begin to understand how organisms in a habitat are dependent upon one another, and that these dependencies can be shown as food chains. They may then either complete given food chains, or try to make food chains from a given set of organisms.</p>
<p><b>Autumn Two Growth and Survival</b></p>		
<p>Lesson 1</p>	<ul style="list-style-type: none"> <li>• Do children know that all animals, including</li> </ul>	<p>Children will consider why animals have babies, then</p>

<p>WALT: To find out about the offspring of a variety of different animals.</p>	<p>humans, have offspring that grow into adults?</p> <ul style="list-style-type: none"> <li>• Can children match a variety of adult animals to their offspring?</li> <li>• Do children know that growth from offspring to adult is a gradual process?</li> </ul>	<p>match parent animals to their offspring.</p>
<p>Lesson 2 WALT: To find out about the different ways in which animals reproduce.</p>	<ul style="list-style-type: none"> <li>• Do children know that animals have offspring that grow into adults?</li> <li>• Can children describe some of the different ways animals have offspring?</li> <li>• Do children know that not all animals reproduce in the same way?</li> </ul>	<p>Children will begin to learn about how animals who give birth to live offspring, and those who lay eggs, reproduce. They will then match and sort animals according to various criteria.</p>
<p>Lesson 3 WALT: To explore how humans grow as they get older.</p>	<ul style="list-style-type: none"> <li>• Do children know that humans grow as they get older?</li> <li>• Do children know that body parts will grow in proportion?</li> <li>• Can children describe the stages of human development?</li> </ul>	<p>Children will learn about ways in which the body grows over time, then either describe some changes in their own words, or conduct a height investigation.</p>
<p>Lesson 4 WALT: To find out what animals, including humans, need to survive.</p>	<ul style="list-style-type: none"> <li>• Do children know that all animals, including humans, need food to survive?</li> <li>• Do children know that all animals, including humans, need water to survive?</li> <li>• Do children know that all animals, including humans, need air to survive?</li> </ul>	<p>Children will think about the basic needs of animals, such as eating, drinking and breathing. They will consider how these needs vary between species, then explain the needs of various animals in their own words.</p>
<p>Lesson 5 WALT: To explore the environment</p>	<ul style="list-style-type: none"> <li>• Do children know that animals need air, water and food to survive?</li> <li>• Do children know that an animal's survival often depends on its environment?</li> <li>• Can children suggest reasons for why a species</li> </ul>	<p>Children will learn about ways in which habitats provide some things that animals need, and how animals are best suited to specific environments.</p>

<p>nt as a factor of survival for animals, including humans.</p>	<p>might become extinct?</p>	
<p>Lesson 6 WALT: To find out how to eat a healthy, balanced diet.</p>	<ul style="list-style-type: none"> <li>• Do children know why we eat and why it is important to eat a balanced diet?</li> <li>• Do children know which foods we should eat most and least of?</li> <li>• Can children suggest meals that would be good for them?</li> </ul>	<p>Children will learn about foods: which are more/less healthy, then either sort foods, or plan, prepare and describe some healthy foods.</p>
<p>Lesson 7 WALT: To find out why exercise is important to keep our bodies healthy.</p>	<ul style="list-style-type: none"> <li>• Do children know that exercise is an important part of keeping our bodies healthy?</li> <li>• Can children identify some of the changes that take place in our body when we exercise?</li> <li>• Can children name various ways they can exercise different parts of their bodies?</li> </ul>	<p>Children will consider the importance of exercise, and how different exercises, sports and activities affect different parts of the body. They may then either undertake a sorting activity, or plan a course of exercises.</p>



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<b>Spring Term One</b> <b>Exploring Everyday Materials</b>		
<b>Lesson</b>	<b>Skill focus</b>	<b>Context</b>
Lesson 1 WALT: To be able to identify a variety of materials and sort them according to a variety of criteria.	<ul style="list-style-type: none"><li>• Can children identify and name a variety of different materials?</li><li>• Can children organise a variety of materials into groups according to given criteria?</li><li>• Can children organise a variety of materials into groups according to their own criteria?</li></ul>	Children will identify and describe some common materials, then think of similar materials that could be grouped in the same ways.
Lesson 2 WALT: To be able to identify natural and man-made materials.	<ul style="list-style-type: none"><li>• Can children recognise that some materials are naturally occurring and some are not?</li><li>• Can children name some naturally occurring materials?</li><li>• Can children identify objects that are made from naturally occurring materials?</li></ul>	Children will identify some natural and man-made materials and describe them, then continue to find out about, sort and describe a range of materials.
Lesson 3 WALT: To identify that some materials can change shape by	<ul style="list-style-type: none"><li>• Do children know that some materials change shape when you bend, squash, stretch or twist them?</li><li>• Can children identify some materials that can change shape temporarily?</li><li>• Can children identify some materials that cannot change shape at all?</li></ul>	Children will squash, bend, twist and stretch a range of materials, then predict how other materials might behave. They will also conduct investigations, recording their findings.

<p>squashing, bending, stretching and twisting, and others can't.</p>		
<p>Lesson 4 WALT: To identify the suitability of metal and plastic for a variety of purposes.</p>	<ul style="list-style-type: none"> <li>● Do children know that metal and plastic are different materials?</li> <li>● Can children identify some different things metal and plastic are used for?</li> <li>● Can children explain why a particular material is chosen to be made into an object.</li> </ul>	<p>Children will look at a variety of objects made using metal or plastic and consider why each material has been used. They will go on to sort and describe a range of plastic and metal objects.</p>
<p>Lesson 5 WALT: To identify different products that can be made from wood and their features and purposes.</p>	<ul style="list-style-type: none"> <li>● Do the children know that paper and cardboard are made from wood?</li> <li>● Can the children identify features of wood, cardboard and paper?</li> <li>● Can children explain the advantages and disadvantages of using different wood products?</li> </ul>	<p>Children will learn about how trees are turned into materials we use. They will then either describe how paper is made in their own words, or make and test paper models.</p>
<p>Lesson 6 WALT: To identify different materials that are used for the same product.</p>	<ul style="list-style-type: none"> <li>● Do the children know that different materials can be used to make the same product?</li> <li>● Can the children identify which materials have been used in a product?</li> <li>● Can children explain how the purpose of a product might affect the material that is used?</li> </ul>	<p>Children will consider why different objects are made using metal or plastic, then describe the uses of objects and the materials they are made from.</p>

<p>Lesson 7 WALT: To identify material inventions and discoveries.</p>	<ul style="list-style-type: none"> <li>• Do the children know that products are improved and changed over time?</li> <li>• Can the children identify the different ways materials have been used?</li> <li>• Can children explain why their invention is an improvement on the original product?</li> </ul>	<p>Children will learn about some man-made materials, their uses and their inventors. They will then describe some products and do an end of unit quiz.</p>
<p><b>Spring Term Two Super Scientists</b></p>		
<p>Lesson 1 WALT: To investigate the effect gravity has on everyday objects.</p>	<ul style="list-style-type: none"> <li>• Can the children use their own knowledge to make predictions?</li> <li>• Can the children observe patterns?</li> <li>• Can the children talk about what they have found out?</li> </ul>	<p>Children will learn about some of the work of Isaac Newton, then explore ways in which the speed of falling objects can be affected during either included practical activity.</p>
<p>Lesson 2 WALT: To investigate what happens to light when it passes through different transparent objects.</p>	<ul style="list-style-type: none"> <li>• Can the children use their own experiences to make predictions?</li> <li>• Can the children observe patterns?</li> <li>• Can the children talk about what they have found out?</li> </ul>	<p>Children will learn about Isaac Newton's work and discoveries regarding light, then conduct practical investigations where they will change the ways in which light passes through transparent objects.</p>
<p>Lesson 3 WALT: To investigate the wind.</p>	<ul style="list-style-type: none"> <li>• Can the children use their own experiences to make predictions?</li> <li>• Can the children ask questions and make observations?</li> <li>• Can the children talk about what they have found out?</li> </ul>	<p>Children will learn about Maggie Aderin-Pocock and her work. Then they will explore the wind by either making and using a wind vane or an anemometer. Children will be encouraged to ask questions and make observations.</p>

<p>Lesson 4 WALT: To investigate whether sound can pass through materials.</p>	<ul style="list-style-type: none"> <li>• Can the children use their own experiences to make predictions?</li> <li>• Can the children observe patterns?</li> <li>• Can the children talk about what they have found out?</li> </ul>	<p>Children will learn about some of the work of Alexander Graham Bell, then conduct practical investigations to explore ways in which sound travels through different materials.</p>
<p>Lesson 5 WALT: To investigate our senses and reflexes.</p>	<ul style="list-style-type: none"> <li>• Can the children use their own experiences to make predictions?</li> <li>• Can the children observe patterns?</li> <li>• Can the children talk about what they have found out?</li> </ul>	<p>Children will learn about some significant historical discoveries about the body, then conduct practical investigations where they either test their reflexes, or use their senses of touch, taste and smell.</p>
<p>Lesson 6 WALT: To investigate how germs are transferred by touching things.</p>	<ul style="list-style-type: none"> <li>• Can the children use their own experiences to make predictions?</li> <li>• Can the children observe patterns?</li> <li>• Can the children talk about what they have found out?</li> </ul>	<p>Children will learn about the work of significant scientists who studied how diseases. They will then either create information texts about staying healthy, or explore how germs are transmitted using a scientific model.</p>
<p>Lesson 7 WALT: To investigate electrical circuits to make a light bulb light up.</p>	<ul style="list-style-type: none"> <li>• Can the children use their own experiences to make predictions?</li> <li>• Can the children observe patterns?</li> <li>• Can the children talk about what they have found out?</li> </ul>	<p>Children will learn about some of the work of Thomas Edison, then make, test, change or improve their own electrical circuits.</p>





## Year 2 Science Subject Map

Summer Term One Ocean Animals		
Lesson	Skill focus	Context
Lesson 1 WALT: To be able to identify, describe and classify a variety of ocean animals.	<ul style="list-style-type: none"><li>• Can children name and identify some ocean animals?</li><li>• Can children describe some basic differences between mammals, reptiles, fish and birds?</li><li>• Can children describe a variety of ocean animals?</li></ul>	Children will think about what an ocean is before thinking about which animals live in oceans and which don't. They will then start to identify a variety of ocean animals. They will also look at different broad groups of animals, such as mammals, fish and birds, and consider why some are suited to living in the ocean and others aren't.
Lesson 2 WALT: To be able to identify and describe the structure of a variety of ocean animals.	<ul style="list-style-type: none"><li>• Can children describe some features of mammals, fish, reptiles and birds?</li><li>• Can children label various features of some different ocean animals?</li><li>• Can children describe the functions of these different features?</li></ul>	Children will recall some different ocean animals before recapping the different features of mammals, fish, reptiles and birds. They will then learn to label different features of a variety of different ocean animals and start to consider what their different features are used for.
Lesson 3 WALT: To consider how ocean animals are suited to	<ul style="list-style-type: none"><li>• Do children know that animals live in different habitats depending on their needs?</li><li>• Can children identify ways in which different ocean animals have adapted to their environment</li><li>• Can children suggest reasons why different</li></ul>	Children will compare pairs of animals, stating which one can live in the ocean and which can't, giving reasons for their choices. They will then look at some different adaptations of ocean animals and explore why they are suited to their

<p>the environment in which they live.</p>	<p>habitats are suitable for some animals but not others?</p>	<p>ocean habitat. They will also look at some different habitats and how they are different, identifying animals that could live in each one.</p>
<p><b>Summer Term Two Growing Plants</b></p>		
<p>Lesson 1 WALT: To understand that different seeds grow into different plants and to describe them.</p>	<ul style="list-style-type: none"> <li>● Do the children know seeds grow into plants?</li> <li>● Can the children name any plants that grow from seeds?</li> <li>● Do the children understand seed packets tell us what seeds need to grow?</li> </ul>	<p>Children will look at seeds and seed packets and establish what can be learned from them and how best to plant and grow different seed types. They may then either design seed packets or plant seeds.</p>
<p>Lesson 2 WALT: 2 To understand that plants can be grown from bulbs.</p>	<ul style="list-style-type: none"> <li>● Do the children know plants grow from seeds and bulbs?</li> <li>● Can the children name any plants that grow from bulbs?</li> <li>● Can the children explain why some plants need to grow from a bulb?</li> </ul>	<p>Children will learn about bulbs: their large food source, and the times of year at which they grow. They may then either undertake a sequencing activity to show bulb growth, or plant bulbs.</p>
<p>Lesson 3 WALT: To be able to explain why and how seeds are dispersed.</p>	<ul style="list-style-type: none"> <li>● Can children explain why seeds need to be dispersed?</li> <li>● Can children give suggestions as to why fruits have so many seeds?</li> <li>● Can children describe some of the ways in which seeds can be dispersed?</li> </ul>	<p>Children will learn about fruits: The seeds they contain and some ways in which they are dispersed. They may then either study a variety of fruits or explain how seeds are dispersed in their own words.</p>

<p>Lesson 4 WALT: To plan, carry out and evaluate an investigation into the conditions that affect germination</p>	<ul style="list-style-type: none"> <li>● Can children ask questions that can be investigated scientifically and suggest how to answer them?</li> <li>● Can children plan and carry out an investigation, making sure it is a fair test?</li> <li>● Can children evaluate their results and draw conclusions?</li> </ul>	<p>Children will learn about germination, then devise tests to determine the various conditions seeds need to germinate. They may then either conduct an investigation or study and interpret a given set of results.</p>
<p>Lesson 5 WALT: To observe and describe how a plant changes as it matures.</p>	<ul style="list-style-type: none"> <li>● Can the children explain how their plant has changed over time?</li> <li>● Can the children use scientific words to explain each stage of the plants development? For example 'germination', 'growth', 'leaves', 'stem', 'shoots', 'roots'?</li> <li>● Do the children understand what a plant needs to grow?</li> </ul>	<p>Referring back to prior learning, children will consider how plants change over time. They may then either undertake sequencing activities, or describe stages in the growth of their own plant.</p>