

KS1 SCIENCE

Autumn: Conflict

Can we improve castles with our modern materials?

Uses of everyday materials

<p>Children Know :</p>	<p>Scientific enquiry question: Which materials would improve castles?</p> <p>Children learn to:</p>
<ul style="list-style-type: none"> ● The names of different materials, including wood, metal, plastic, glass, stone, brick and can talk about how we use these materials in our world. ● About the similarities and differences, strengths and weaknesses of different materials and can group them based on these qualities. ● Buildings are built using a variety of materials. ● Castles were originally made from wood but later on were built using stone to make them stronger. 	<p>Observing closely using equipment</p> <p>Look closely at the different materials using equipment such as magnifying glasses.</p>
	<p>Identify and classify</p> <p>Group materials based on things such as their properties and best materials for building.</p>
	<p>Perform simple tests</p> <p>Test the strength of different materials – link to building a strong castle.</p>

Spring: Planet Earth

What would happen if all animals lived in the same place?

Animals/ living things and their habitats

<p>Children Know :</p>	<p>Scientific enquiry question: Could all animals live in the same place?</p> <p>Children learn to :</p>
<p>(cross reference with Geography plans)</p> <ul style="list-style-type: none"> ● The names of common animals including fish, amphibians, reptiles, birds and mammals ● Similarities and differences between different types of animals including pets. ● Differences between things that are living, dead and things that have never been alive. ● That animals live in habitats to which they are suited. ● The names of some common carnivores, herbivores and omnivores. ● Animals get their food from plants and other animals and this can be shown in a simple food chain. ● Animals have offspring that grow into adults. 	<p>Observe closely (Get Kimmy's Zoo in?)</p> <p>Look closely at a range of different animals.</p>
	<p>Identifying and classifying</p> <p>Group animals based on different criteria – eg appearance, diet and habitat.</p>
	<p>Using their observations and ideas to suggest answers to questions</p>

Summer: Britain (1 st half term)		Summer: Britain (2nd half term)	
Are all plants the same?		Are big ears “all the better for hearing with?” Humans	
Children Know:	Scientific enquiry question: Are all seeds the same? Children learn to:	Children Know :	Scientific enquiry question linked to testing our senses How far away we can hear noises? Children learn to:
<ul style="list-style-type: none"> • The names of different types of plants, including common wild and garden plants, deciduous and evergreen trees. • The basic structure of plants, including trees. • How seeds and bulbs grow into mature plants. • That seeds and bulbs have food stored inside them so they can begin to grow. • That most seeds and bulbs need water but not light to begin growing. <p>(continue to watch plants grow throughout the whole term)</p>	Observe closely, using simple equipment Look closely at different plants in the environment. Cut up a plant to see what is inside. Look closely at a variety of seeds and bulbs. Watch plants grow from bulbs and seeds.	<ul style="list-style-type: none"> • The names of the different parts of the body and demonstrate this by drawing and labelling them. • The 5 senses and which part of the body they link to. • Senses help us to experience the world around us in different ways and help to keep us safe 	Asking simple questions Ask questions about the senses. Know how to find answers to their questions in a range of ways Eg internet, books, testing
	Identify and classify Group plants in different ways. Group seeds and bulbs.		Performing simple tests Set up a simple test. Find the answer to a question by testing how far away they can hear noises. Record their results
	Use their observations and ideas to suggest answers to questions Plant some bulbs and a selection of different seeds. What do children notice about them as they grow?		Using their observations to suggest answers Use their observations and test results to reach a conclusion.

Autumn: Human Kind	
How do humans survive? Human body	
Children Know :	Scientific enquiry question: How do germs spread? Children learn to:
<ul style="list-style-type: none"> ● That humans have offspring that grow into adults. ● The basic needs of a human for survival. ● That exercise, eating the right amounts of food and hygiene are important to stay healthy. Seasonal changes <ul style="list-style-type: none"> ● The changes that take place throughout the seasons. ● That the weather changes depending on the season. ● The length of the day varies throughout the year. 	Asking simple questions Ask questions about germs and find out answers through books, the internet and testing.
	Perform simple tests Set up a test where pupils have glitter mixed with washing up liquid on their hands and then get on with their lesson. Later on look for the glitter around the room.
	Use their observations and ideas to suggest answers to questions After looking at the amount of glitter everywhere come to conclusions about how germs spread.
Spring: Inventions	
Do risk takers become inventors? Uses of everyday materials	
Children Know :	Scientific enquiry question: What would be the best material for an umbrella, a pillowcase, a bookshelf etc Children learn to :
<ul style="list-style-type: none"> ● The names of a variety of materials that are used to make everyday items, including fabrics, elastic, plastic, metal, wood, paper, cardboard. ● Objects are made from different materials. ● Some materials can be changed by squashing, bending, twisting, stretching. ● Materials can be grouped based on their properties. ● Why certain materials have been chosen to make items. Seasonal changes <ul style="list-style-type: none"> ● The changes that take place throughout the seasons. ● That the weather changes depending on the season. ● The length of the day varies throughout the year. 	Ask simple questions and recognising they can be answered in different ways. Children ask questions about the strength and function of a chosen item to help them think about what qualities their material needs to have.
	Perform simple tests Test materials using different criteria to find the most suitable one for the job.
	Gathering and recording data to help in answering questions Record how each material coped with each criteria to help them come to a conclusion.

Summer: Civilisations

How do plants survive in different environments?

Children Know :

Scientific enquiry question:

What does a plant need to survive?

Children learn to:

- A variety of different plants including some from different environments such as the Arctic and the desert.
- The basic conditions that plants need to survive.
- How a couple of plants have adapted to live in harsh environments. (Eg plants in the artic have short roots because the ground is frozen)

Seasonal changes

- The changes that take place throughout the seasons.
- That the weather changes depending on the season.
- The length of the day varies throughout the year.

Asking simple questions and recognising that they can be answered in different ways

Asking questions about what plants need to grow and thinking about how they will answer their questions.

Performing simple tests

Set up a simple test to find out what conditions are needed for a plant to grow. Include sand and bark. Also very hot and very cold temperatures.

Using their observations and ideas to suggest answers to questions.

Making conclusions based on their test.