Bude Primary Academy – Infant School Progression Map - Knowledge and Skills

Intent

Children experience 'science' every moment of every day. They see the sun move through the sky, they bring light to a room by flicking a switch, they tumble to the ground when they fall. At Bud Academy, we aim to support children in questioning the wonderful world around us. We teach science to inspire and harness curiosity as well as providing an explanation and vocabulary which helps joins the dots. Teaching science allows for those Oooooh!!! moments when something suddenly makes sense. We offer opportunities for children to engage in new experience as well as noticing and exploring the familiar and encourage all to question, why

During their time at Bude Primary Academy Infant school our children will

- will develop their scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry, and physics.
- We will develop their scientific language, enabling children to talk about their methods and explain their findings and conclusions.

The curriculum will motivate them to become effective communicators of scientific ideas, facts and data whilst enhancing their practical skills of scientific enquiry

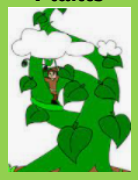
Subject – Science - Autumn

	EYFS (People and Communities)		**Year 1**		**Year 2**	
Topic	**Who am I?** 	**Where can we go** 	**Marvellous Me** 	**Once upon a time** 	**Wild Explorers** 	**Fire and Plague** 
Context	**Living things and their habitats**	**Everyday materials** **Seasonal Changes**	**Our Bodies**	**Seasonal Changes** (Introduce but to continue through the year) **Plants 1**	**Living things and their habitats**	**Everyday materials**
	Scientific Enquiry - runs throughout our curriculum Asking simple questions and recognising that they can be answered in different ways. Observing closely, using simple equipment Performing simple tests Identifying and classifying Using their observations and ideas to suggest answers to questions Gathering and recording data to help in answering question					
Knowledge	Share our all about boxes – talk about our families, what we couldn't do when we were a baby	Investigating materials through junk modelling and exploring clay, ice, water, Looking for the signs if winter	**Ourselves & Senses** To know the different parts of a human body – To know what are senses are and which part of the body they are linked to.	**Seasons** To know what a season is To know the names and sequence of the four seasons To know the key features of each season (weather , plants clothes etc) To understand the term deciduous and evergreen – in context of Christmas trees	**Animals and their Habitats** To know that things can be dead, alive or never have lived. To know what a habitat is. To know that different animals are suited to different habitats To know that plants and animals in specific habitats depend on each other To know the names of plants and animals in a range of habitats including microhabitats To understand a simple food chain	**Materials** To know the names of a wide variety of materials and to know that they are all are suitable for particular uses To know some of the common vocabulary to describe the properties of materials To know that the shapes of some solid shapes can be changed by bending, twisting, squishing, and stretching.

Skills	.Children can talk about how they have changed since they were a baby	Children can talk about some of the characteristics of a range of materials and use them for a range of purposes Children can talk about how their local environment changes in the winters	Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense Perform simple tests Gathering and recording data.	To say the names of the four seasons in the correct sequence and explain some of the key features of each on. To collect data and evidence and make observations present findings around the key features of Autumn (to continue in every season)	**Humans and other living things.** To identify things can be dead, alive or never have lived and explore and compare their differences To explain what a habitat is. To explain and investigate why different animals are suited or not suited to a range of habitats To explain and investigate how plants and animals in specific habitats depend on each other To identify plants and animals in a range of habitats including microhabitats To be understand a simple food chain and be able to create their own .	To identify, compare, sort, and test a variety of materials for particular purposes To identify the ways in which the shapes of some solid shapes can be changed by bending, twisting, squishing, and stretching.
	Working scientifically (ongoing all year) ➔ (gather and record data, identify and classify, observe closely, simple tests, ask simple questions)					

Bude Primary Academy – Infant School Progression Map - Knowledge and Skills

Subject – Science - Spring

	EYFS (Understanding of the World)		**Year 1**		**Year 2**	
Topic	**What's in the egg?** 	**What's growing in the garden?** 	**Home sweet home** 	**Plants** 	**Islands** 	**Changes** 

Context	Exploring different creatures that hatch from an egg.	The Natural world	Materials	Plants	Animals including humans	How animals including humans change over time
	Scientific Enquiry - runs throughout our curriculum Asking simple questions and recognising that they can be answered in different ways. Observing closely, using simple equipment Performing simple tests Identifying and classifying Using their observations and ideas to suggest answers to questions Gathering and recording data to help in answering question					
Knowledge	**<u>Eggs</u>** Learning about different animals and making comparisons Watching time lapses of Eggs hatching	**<u>Plants</u>** Plants Children learn about a variety of plants and how they grow. Signs of Spring	To know the names of a range of common materials. To know the basic features of a range of common materials	. To know the names of a variety of common wild and garden plants, including deciduous and evergreen trees To know the basic structure of a variety of common flowering plants, including trees. To know the basic plant parts include root, stem, leaf, flower, petal, fruit seed and bulb.	To know that humans need water, food air and shelter to survive. Animals need water, food, air and shelter to survive.	To know that animals including humans change over time. To know that animals including humans change over time.
Skills	Children can explain that know some living things hatch from eggs Children can make predictions and observations about hatching eggs	Children can give a simple explanation of how to grow a plan Children can give simple descriptions of how the local environment changes in the Spring	To distinguish between and object and the material it is made from. To identify a range of everyday materials To describe the properties of a range of everyday materials To compare and group a range of everyday materials based on their properties	To identify variety of common wild and garden plants, including deciduous and evergreen trees To explain structure of a variety of common flowering plants, including trees. To identify plant parts include root, stem, leaf, flower, petal, fruit seed	To describe what humans, need to survive. To explain how animals, including humans, need water, food, air and shelter to survive (AH6).	To describe how humans and a range of animals including minibeasts change over time

Subject – Science - Summer

	EYFS (Understanding of the World)		Year 1		Year 2	
Topic	**What's that munching?** 	**What's in the sea?** 	**Fearsome creatures** 	**Coasts and Capitals** 	**Oh I do like to be beside the seaside!** 	**Plants and food** 
Context	**Minibeasts.**	**Seas and Oceans.**	**Animals including humans.**	**Being a Scientist** Through scientific enquiry	**Being a Scientist** Through scientific enquiry	**Plants**
	Scientific Enquiry - runs throughout our curriculum Asking simple questions and recognising that they can be answered in different ways. Observing closely, using simple equipment Performing simple tests Identifying and classifying Using their observations and ideas to suggest answers to questions Gathering and recording data to help in answering question					
Knowledge	**Minibeasts** Minibeast and their life cycles in our environment and beyond Hatching Caterpillars	**Sea creatures** Children learn about a range of sea creatures found both locally and the wider world Children learn about ocean and beach pollution and take part in a local beach clean Signs of summer	**Animals** To know the words fish, mammal, reptile, bird and amphibian mean To know what the word classify means To know that these terns can be used to classify animals To know the names of variety of common animals including fish, amphibians, reptiles, birds and mammals To know the structure of a variety of common animals (fish, amphibians,	**Working scientifically** Ask simple questions and recognise that they can be answered in different ways. Gather and record data to help in answering questions. Identify and classify. Use their observations and ideas to suggest answers to questions. Observe closely, using simple equipment. Ask simple questions and recognise that they can be answered in different ways.	**Working scientifically** Ask simple questions and recognise that they can be answered in different ways. Gather and record data to help in answering questions. Identify and classify. Use their observations and ideas to suggest answers to questions. Observe closely, using simple equipment. Ask simple questions and recognise that they can be answered in different ways	**Plants** To know that plants need water, light and a suitable temperature to grow and stay healthy. To know that seeds and bulbs grow

			reptiles, birds and mammals, including pets) To know what a herbivore, carnivore, omnivore is To know a range of herbivores, carnivores, and omnivores.			
Skills	Children can identify a range of minibeasts in the local environment and talk about where they are found. They can make observations and talk about similarities and differences. Children can explain the life cycle of a butterfly .	Children can name and describe a range of sea creatures and talk about some of their characteristics Children can talk about the importance of keeping our oceans and beaches clean Children can talk about how the local environment changes in the summer.	To identify a range of mammals, birds, reptiles, amphibians and fish To identify which group an animal would be classified as based on its characteristics To draw and label the structure of a variety of common animals To explain what a herbivore, carnivore, omnivore is To identify which of the above and animals is based on information about what ir eats.	With support, gather and record simple data in a range of ways. Observe objects, materials, living things and changes over time, sorting and grouping them based on their features. Talk about what they have done and say, with help, what they think they have found out. With support, following instructions and perform simple tests and begin to talk about what they might do or what might happen. With support, use simple equipment to measure and make observations. Ask simple scientific questions.	. With support, gather and record simple data in a range of ways. Observe objects, materials, living things and changes over time, sorting and grouping them based on their features. Talk about what they have done and say, with help, what they think they have found out. With support, following instructions and perform simple tests and begin to talk about what they might do or what might happen. With support, use simple equipment to measure and make observations. Ask simple scientific questions	To explain and demonstrate what plants need in order to grow To explain the sequence of growth of a seed / bulb
	Working scientifically (ongoing all year) ➔ (gather and record data, identify and classify, observe closely, simple tests, ask simple questions)					

End points

Intent	In EYFS	Year 1	Year 2
	Children should be able to identify similarities and differences in relation to places, objects, materials and living things. They should be able to discuss the features of their own environment and how environments might vary from one another. They should make observations of animals and plants and explain why some things occur and talk about changes.	Children should be able to name, label and sort animals, plants and body parts into groups. They should be able to perform simple tests, gather data and discuss what they find out.	Children should be able to experience and observe phenomena, looking more closely at world around them. They should be curious and ask questions about what they notice. They should be developing their scientific enquiry to answer their own questions, including observing changes over a period of time, noticing patterns, grouping and classifying things and carrying out simple tests