Science Long Term Plan KS1

Year Group		Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Natural Science		**Biology**		**Chemistry/ Physics**		**Biology**	
Scientist				Charles Macintosh Martin Brock		Wangari Maathai	
1	**Knowledge Organiser**	**Animals Including Humans**		**Materials**	**STEM**	**Plants**	
	Seasonal Changes	**Autumn**	**Winter**		**Spring**		**Summer**
	Unit Aim	*Children can group animals scientifically.*	*Children know the basic parts of a human body and their functions.*	*Children can group materials according to their properties.*	*Children can design, make and evaluate. Children can link STEM projects to real life scenarios.*	*Children can name a variety of plants.*	*Children know the parts of a flowering plant and can explain changes that happen to them over time.*
	Knowledge	Identify, name and classify a variety of common animals and recognise they have babies. Identify, name and sort a variety of common animals using features. Identify if animals are carnivores,	Name basic parts of the human body. Identify and name the 5 senses of the body.	Identify an object and its material. Sort and classify materials.	Understand that air resistance is a type of friction and know that the size or shape of an object affects its air resistance (parachutes). Identify the best material for a purpose - Curtain experiment.	Identify and name a variety of common wild and garden plants.	Recognise parts of a flowering plant.

		herbivores or omnivores.			Discover the strength of the triangle in construction and know how to use it to build a strong structure (Port Lympne bear enclosure).		
	Skills	Observe and describe weather associated with the season Autumn.	Observe and describe weather associated with the season Winter.	Describe the properties of materials (mystery box lesson). Compare and group everyday materials. Use the properties of materials for design.	Observe and describe weather associated with the season Spring. Explore the impact humans have on the environment (bird feeders). Make observations and simple measurements in a familiar context - Sandcastle experiment.	Observe and describe weather associated with the season Summer.	Grow plants and observe the changes over time.
	Working Scientifically	● Ask scientific questions and answer questions in different ways. ● Observe closely. ● Use scientific equipment. ● Identify and classify. ● Gather and record data to solve a problem. ● Explore existing ideas. ● Repurpose existing materials.					

		• Make design decisions. • Perform simple tests. • Gather and record data to answer simple questions. • Design, plan and create a structure. • Record data.					
Natural Science		**Chemistry/Physics**		**Biology**	**Chemistry/ Physics**	**Biology**	
Scientist		**John Loudon McAdam Julie Brusaw**		**Dr Ernest Madu**			**David Douglas**
2	**Knowledge Organiser**	**Materials**		**Animals inc. Humans**	**STEM**	**Living things and their habitats**	**Plants**
	Unit Aim	*Children can identify and compare materials.*	*Children can explain their choice of materials.*	*Children can identify basic needs of humans and animals.*	*Children can design, make and evaluate. Children can link STEM projects to real life scenarios.*	*Children can classify animals, identify their habitats and basic needs.*	*Children can explain the process of plant growth and identify the main parts of a plant.*
	Knowledge	Identify and compare the suitability of different materials.	Identify and compare the suitability of different materials.	Learn and describe the basic needs of animals, including humans for survival.	Learn how planes fly, including the roles of thrust and lift to work against drag and gravity. Understand that elastic materials store energy (make catapults).	Learn how animals survive - food chain focus. Identify that living things live in habitats they are suited for and they provide for the basic needs. Identify that most living things live in	Identify the main parts of a plant.

						habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals Identify a variety of plants and animals in their habitats, including micro-habitats.	
	Skills	Research people who have developed useful new materials (Charles Mackintosh) To find out how the shape of materials can be changed. Describe and explain the suitability of materials.	Design a product using suitable materials. Make and test a product using suitable materials.	Describe and compare the structure of a variety of common animals. Find out about and describe the basic needs of animals, including humans, for survival. Describe the importance for humans of exercise.	Explore, design and make pulleys. Explore, design and make winches. Find out about, design and make a bridge (beam or truss). To use my learning to design a poster about animals and their needs.	Compare and explore differences between living, being alive and never being alive. Sort and classify animal habitats.	Observe and describe how seeds and bulbs grow into mature plants. Observe how seeds and bulbs grow.

				Describe the importance of a varied diet for humans. Describe the importance for humans of hygiene.			
	Working Scientifically	● Ask simple scientific questions and recognise that they can be answered in different ways. ● Perform simple tests. ● Observe using simple equipment. Identifying/ classifying. ● Gather and record data to answer scientific questions. ● Use observations to suggest answers to questions. ● Use scientific ideas to suggest answers to questions. ● Explore existing ideas and see the benefits of repurposing existing materials. Make design decisions. ● Work together to design, plan and create a structure. ● Develop ideas through experimentation and trial and improvement, reflecting on and modifying ideas.					