Cheadle Primary – the school at the heart of the village, free to flourish, ready to learn and succeed. **Progression of Skills and Knowledge: SCIENCE Year 2**

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	**BRIGHT LIGHTS, BIG CITY**	**FESTIVALS**	**FROZEN**	**LET'S GO TO AUSTRALIA**	**GROWTH**	**GREAT OUTDOORS**
	EVERYDAY MATERIALS	**THE ENVIRONMENT & EVERYDAY MATERIALS**	**LIVING THINGS AND HABITATS**	**ANIMALS INCLUDING HUMANS**	**PLANTS**	**LIVING THINGS AND THEIR HABITATS Minibeasts**
SCIENTIFIC ENQUIRY/ & QUESTIONING	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular use Identifying and classifying asking simple questions and recognising that they can be answered in different ways Observing closely, using simple equipment Performing simple tests Using their observations and ideas to suggest answers to questions Gathering and recording data to help in answering questions.	Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. endangered animals research recycling research - save the planet	Identify that most living things live in habitats to which they are suited. Describe how different habitats provide for the basic needs of different kinds of animals and how they depend on each other. Identify and name a variety of animals in their habitats, including micro-habitats.	Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. Identifying and classifying Performing simple tests Gathering and recording data to help in answering questions. Notice that animals, including humans, have offspring which grow into adults	Observe and describe how seeds and bulbs grow into mature plants Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. Observing closely, using simple equipment Asking simple questions and recognising that they can be answered in different ways Performing simple tests Using their observations and ideas to suggest answers to questions	Explore and compare the differences between things that are living, dead, and things that have never been alive Observing closely, using simple equipment Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other Identify and name a variety of plants and animals in their habitats, including micro-habitats Identifying and classifying Gathering and recording data to help in answering questions. Observing closely, using simple equipment Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.
OBSERVING	Observing closely a variety of different materials	working in pairs observe the changes of stretching etc	melting ice	Animals including humans, have offspring which grow into adults	changes of plant life cress compared to beans, hyacinth roots - observe	Life cycles observing different types of plants in the school garden
IDENTIFYING & CLASSIFYING	identify materials such as: brick, fabric, glass plastic metal		sorting animals into those that live in hot and cold countries.		Identify the different stages of plant growth	What animals live in what habitats.
TESTING & FINDINGS	What materials were easy to set on fire {the Great fire of London) Watch the experiment on Youtube from other schools.	Make festival food and observe changes from uncooked to solids - Hanukkah bread	ice melting observations and timed (linked to maths)	Growth in animals egg-chick-chicken spawn-tadpole-frog baby-child-teen-adult caterpillar-puae-butterfly	plant test - which will grow the best? with/without water/sun/air	
Key Questions	can you remember in Year 1 looking at materials - rough and smooth etc recall which are waterproof and which aren't?	What is making the material change shape?	Can polar bears survive without ice? test the melting of ice as experiment		What do plants need to grow? Can you predict which seed will grow the best? Why?	Do animals depend on each other? How?
Key Learning Intentions	I know which materials are waterproof and which aren't. I can compare the suitability of different everyday materials. I can identify and discuss uses of different everyday materials. I can talk about the inventor John McAdam/ John Macintosh Materials used for more than one purpose eg wood: table, floor matches	I know some materials can be changed by squashing, bending, twisting and stretching. I can explain how the shapes of objects made from some materials can be changed. THE ENVIRONMENT I can sort items for recycling based on their materials. I can suggest ways we can reduce, reuse and recycle. I can ask and answer questions about endangered animals.	I can describe how different habitats provide for the basic needs of different animals I can describe how animals depend on each other. THE ENVIRONMENT I can measure the melting of ice in a comparative test.	I can describe the basic needs of animals, for survival (water, food and air) I know what humans need for survival and growth. (water, food, air) I can match animals and their babies. I can describe how animals change as they grow. I can suggest ways to improve my diet. To know humans have offspring which grows into adults.	I know what plants need to survive (water, light , temp) I can look closely at plants and trees and record what I see. I can explain the life cycle of plants. I can name some trees. I can record the results of a comparative test. I can use my observations to say what food crops will need to grow and stay healthy. I can observe and describe the growth of different plants. I can make a bar chart to show the growth of my plants.	I know the difference between living, dead, and things that have never been alive Identify and name a variety of plants and animals in their habitats, I can identify minibeasts in their micro-habitats. I can map and describe a habitat and identify what animals live in it. I can describe how animals get their food. I can describe a simple food chain. I can describe how animals obtain their food from plants and other animals. I can identify and name different sources of food. I can identify and name different sources of food
Key Knowledge	materials have different properties – can you remember which from Year 1? Inventors John McAdam, John Dunlop	the shape of solid objects can change	Which animals live in cold countries. Where is the north/south pole	I can describe how animals obtain their food from plants and other animals. To identify and name different sources of food.	That plants need a suitable temperature to grow and stay healthy.	Plant names That most living things live in habitats to which they are suited. How different habitats provide for the basic needs of different kinds of animals and plants. How plants and animals depend on each other.
Key Vocab	translucent transparent opaque hard soft	shape	polar	mammal, amphibian, reptile, animal baby names,	temperature thermometer Celsius, bulb, petal, germination disperse	Offspring, microhabitat, habitat
Key Challenge	Why does wood burn more easily than other materials? explain Does wood burn the same when it's wet?	Can all plastics change shae by squashing, squeezing etc?	How would animals survive without ice? How could they adapt? (global warming)		To grow the tallest sunflower	What is a micro-habitat? can you give examples Think of another animal and research the food chain they may use.
Yr 2 Support	visual - images and touch different materials support language with TA	supported with TA	language support on a word mat		support in discussion on predictions	support in understanding once lived/living/dead support following a simple food chain
Visit or Visitor	NONE	NONE	NONE	Matt Oz man visitor workshop		
Key text	The Great Fire of London - literacy linked The Three Wolves and the Big Bad Pig		Frozen story A Planet Full of Plastic	The Clue is in the Poo Growing Frogs		non fiction plant and habitat texts JIm and the Beanstalk Olivers Vegetables The Enchanted Wood
Resources	brick glass paper cardboard plastic	sponge rubber glass paper plasticine,			seeds soil	