Cumwhinton School Curriculum – Science Y2 SUM		
Year 2	NC Content	**Living things and their habitats** Pupils should be taught to: -explore and compare the differences between things that are living, dead, and things that have never been alive -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 microhabitats -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. **Plants** Pupils should be taught to: -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. **Animals, including humans** Pupils should be taught to: -notice that animals, including humans, have offspring which grow into adults -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. **Uses of everyday materials** Pupils should be taught to: -identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses -find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

Scientific Knowledge & Understanding Science Enquiry & Working Scientifically Uses & Implications of Science today and for the future

Mapping across the Year

	AUTUMN	SPRING	SUMMMER
Scientific Knowledge & Understanding	Animals including humans Notice that animals, including humans, have offspring which grow into adults 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 Living Things & Their Habitats Explore and compare the differences between things that are living, dead, and things that have never been alive 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 microhabitats 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	Plants 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	Uses of everyday materials Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching
Science Enquiry & Working Scientifically	Identifying and classifying Asking simple questions and recognising that they can be answered in different ways Identifying and classifying	Identifying and classifying Observing closely, using simple equipment	Asking simple questions and recognising that they can be answered in different ways Performing simple tests Observing closely, using simple equipment Using their observations and ideas to suggest answers to questions Gathering and recording data to help in answering questions
Uses & Implications of Science today and for the future	Investigate washing hands, using glitter gel. Create a life cycle book for a younger child Show what they know about looking after an animal by creating a pet owners' guide. Can explain in simple terms why an animal or plant is suited to a habitat e.g. the caterpillar cannot live under the soil like a worm as it needs fresh leaves to eat; the seaweed we found on the beach cannot live in our pond because it is not salty	Research and plan when and how to plant a range of seeds and bulbs. Look after the plants as they grow – weeding, thinning, watering etc.	Make suggestions about alternative materials for a purpose that are both suitable and unsuitable Test the properties of materials for particular uses e.g. compare the stretchiness of fabrics to select the most appropriate for a superhero costume, test materials for waterproofness to select the most appropriate for a rain hat/umbrella, test the absorbency of different brands of baby's nappies as an investigation for a supermarket.

CONCEPTUAL SCHOOL AMBITION DRIVERS

	EYFS & KS1	LKS2	UKS2
AUT	Diversity	Fairness	Individuality
SPR	Truth	Change	Resilience
SUM	Responsibility	Equality	Sustainability

Science – SUMMER YEAR 2 – Uses of everyday materials.

THE WORLD – Responsibility

Scientific Knowledge & Understanding Science Enquiry & Working Scientifically Uses & Implications of Science today and for the future

	NC	CUMWHINTON CURRICULUM
Finding out (Facts & knowledge)	Uses of everyday materials Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching	Chn identify the materials from which common objects are made. Materials include wood, metal, plastic, glass, brick, rock, paper and cardboard. Chn learn about objects, materials, and properties. They look at objects, identify the materials they are made from, and explain why they are suitable in each situation. Objects are made of different materials. Materials have different properties. Objects made by humans are made of materials chosen for their properties. Objects can be made of more than one material. Chn to choose the right materials for different situations. Chn to explain their reasons. Human-made objects are made of materials chosen for their properties. A material can be tough, flexible, rigid, waterproof, absorbent, light, heavy, strong, transparent, opaque, insulating, smooth, rough, fragile or reflective. Chn learn about objects, materials and properties. They look for objects in the classroom, identify their main materials and draw pictures of them, grouping by material. Objects are made of different materials. Some objects are made of several different materials.
Using (Applying & analysing)	Asking simple questions and recognising that they can be answered in different ways Performing simple tests Observing closely, using simple equipment Using their observations and ideas to suggest answers to questions Gathering and recording data to help in answering questions	Simple test– Which material is best for the bottom of children's school shoes? Simple test – How well do different materials bounce? Chn carry out an investigation into the properties of small objects. They predict and test whether it is magnetic, transparent, floats, or can be squashed or stretched. Objects are made of different materials. Materials have different properties. Material properties include the ability to float, to be stretched, to be squashed, transparency, and attraction to a magnet. Material properties can be discovered through experiment. Exploring – How well can we change the shapes of some solid objects Chn carry out an investigation into how they can change the shape of up to 8 classroom objects. They predict before they test and then discuss their findings. Objects can be deformed in different ways. Some objects can be deformed by hand, while others cannot. Material properties can be discovered through experiment
Concluding (Evaluating & Summarising)	Make suggestions about alternative materials for a purpose that are both suitable and unsuitable Test the properties of materials for particular uses e.g. compare the stretchiness of fabrics to select the most appropriate for a superhero costume, test materials for waterproofness to select the most appropriate for a rain hat/umbrella, test the absorbency of different brands of baby's nappies as an investigation for a supermarket.	Using the results from the investigation above, ask pupils if they have enough evidence to answer the question: Is the material fit for purpose? Share ideas then pupils write a conclusion using the sentence frames: We found out that … We know this because … If there is insufficient evidence, explain that scientists cannot always reach a conclusion. How are we responsible for the materials we use? How are humans responsible for the Earth? (recycle) Comment critically on each other's findings using some set criteria. For example, clarity of information, accuracy of drawings / diagrams, use of appropriate scientific vocabulary, language appropriate for Year 2. Provide some time to edit and improve both the content and presentation of their work.