Science

Year 1

Unit to be revisited every half term

Hook: Children will become nature detectives this year.

Learning Question	**Learning Intention**	**Impact**
Can you observe changes on trees over the 4 seasons?	Each class chooses a tree to observe over the year. Draw pictures, take photographs and take rubbings from the tree throughout the year. Record the findings and compare the seasons.	Seasonal changes- *observe changes across the 4 seasons.* Working Scientifically- *identifying and classifying*
How does the weather change over the seasons?	For the last week of every month, record daily weather. Identify which season the recordings are taken in. Look for patterns in this weather.	Seasonal changes- *observe and describe weather associated with the seasons and how day length varies.*
What happens to the length of the days over the seasons?	When recording daily weather patterns, children look at the time the sun rises and sun sets each day. **Maths link.** Compare the length of the days in the different seasons. Why does this happen? What affect does it have on the day?	Seasonal changes- *observe and describe weather associated with the seasons and how day length varies.* Working Scientifically- *identifying and classifying*
What else changes over the 4 seasons?	Analyse the information collected over the year. What other changes have the children identified? How has it affected them?	Seasonal changes- *observe changes across the 4 seasons.* Working Scientifically- *gathering and recording data to help in answering questions.*

	Compare the findings and how it affects their survival.	

Year 1 – Autumn 2

Autumn 2- Materials

Linked to DT

Learning Question	**Learning Intention**	**Impact**
Can you identify common materials?	Discuss what the word material means. Brainstorm a list of materials. Look at which materials are natural and which are man-made. Using classroom objects, draw a picture and name each material.	Working scientifically- *sorting and classifying* Everyday materials- *distinguish between objects and the material from which it is made.* *Identify and name a variety of everyday materials.*
Can you describe and sort materials?	Children name some materials that they learned about in the last lesson. Discuss the word property with them. Explain what this is in relation to materials. Focus on transparent and opaque. Look at examples of these materials. Explore various materials and identify what is the same about them. Begin to teach technical terms hard/soft, smooth/rough, flexible/rigid, shiny/dull.	Working scientifically- *sorting and classifying* Everyday materials- *Identify and name a variety of everyday materials.* *Describe the simple physical properties of a variety of everyday materials.*
How can we find out the properties of materials?	Remind children of what a property of material is. List them. **Investigation**	Working scientifically-using their observations and ideas to suggest answers to questions.

	Children decide on how you could find out if a material was flexible or rigid. How could you test it? Plan the investigation, carry it out and write up their findings. **Link to DT- Playgrounds**	Everyday materials- *Identify and name a variety of everyday materials.* *Describe the simple physical properties of a variety of everyday materials.*
Which properties can you remember?	Give children some items to sort according to their characteristics. Ensure children are aware that the properties are opposites of each other. E.g. rough OR smooth, hard OR soft.	Working scientifically- *sorting and classifying* Everyday materials- *gathering and recording data to help in answering questions.*

Year 1- Spring 1

Unit; Our body

Learning Question	Learning Intention	Impact
Can you draw your body and label your body parts?	Introduction to the body- What basic body parts do we already know? What are the functions of the various basic body parts? Children are asked to identify, name, draw and label the basic parts of the human body. Discuss and learn the main body parts through games, actions, songs and rhymes.	Working Scientifically- *identifying body parts.*
Can you say which parts of my body I use to see, hear, taste, smell and feel?	**The senses.**	Working Scientifically- *identifying and naming body parts and associated senses.*

	Recap previous learning. What are the functions of the various basic body parts? Children will be able to say which part of the body is associated with each sense. Discuss and learn which senses are associated which body parts.	
Can you use your sense of smell to explore and compare the different scents/fragrances?	Scent Detectives. Recap previous learning. What are the functions of the various basic body parts? What are the 5 senses? How do they help us? How do we use them? Perform a simple investigation in the context of exploring one of the five senses.	Working Scientifically- *Explore and compare the different scents/fragrances.*

Year 1- Spring 2

Unit; Animals

Learning Question	Learning Intention	Impact
Can I identify and label common animals?	Discuss what an animal is. What do animals have in common? Similarities and differences. Label body parts of an animal.	Working Scientifically- *identifying and observing animals.*

Can you classify animals?	What do some animals have in common? Introduce the terms fish, bird, amphibian, reptile and mammal. Correctly classify animals.	Working Scientifically- *identifying and classifying according to fish, bird, amphibian, reptile and mammal.*
Can you sort animals based on their diet?	Introduce the terms herbivore, omnivore, carnivore. Work as a group to sort animals into these categories.	Working Scientifically- *identifying and classifying as carnivore, herbivore and omnivore.*
Can you make and test predictions?	What do they think that snails eat? Predict what a snail eats? Plan an investigation to test predictions. Work in small groups to test theories.	Working Scientifically- *identifying and classifying.* *Planning an investigation as a small group.*

Year 1 – Summer 1

Unit; Plants

Learning Question	Learning Intention	Impact
Can you plant your own bean?	Children engage in a variety of plant activities. Children to plant a bean plant at start of term. Discuss equipment that will be needed. Make a prediction of what they will see.	Working Scientifically- *Observe closely, use simple equipment*

	Start a bean diary and continue to observe.	
Can you identify and name a variety of common wild plants?	Wild plant hunt around playground. Children to find wild plants around them and discuss them using scientific vocabulary.	Working Scientifically- *identifying and classifying wild plants.*
Can you identify and name a variety of common garden plants?	Opportunity to explore school garden. Discuss plants found using scientific vocabulary.	Working Scientifically- *identifying and classifying plants in the school garden.*
Can you identify and describe the parts of a plant or tree?	Identify and describe the basic structure of a variety of common flowering plants, including trees by making and labelling plant pictures. Look through magnifying glasses and explore the different parts of a plant.	Working Scientifically- *identifying the structure of plants and classifying*.
Can you identify and name a variety of deciduous and evergreen trees?	Explore different leaves to classify it as deciduous or evergreen. Discuss and compare leaves using scientific vocabulary. What trees are around our school?	Working Scientifically- *identifying and classifying a variety of leaves.*
Can you decide how to answer the question?	Look at what plants need e.g. soil, warmth, sun, light, water Create a way for children to investigate the question and to decide what will stay the same, what will be different and what we will use to measure this.	Working Scientifically- *identifying what plants need to survive.*