Science – Year 2

Summer 2	Plants					
Prior learning	EYFS - Discover that plants are living things, learn where they come from, explore how to look after plants. Year 1 – Identify the basic structure of flowering plants and trees.					
Lesson objective	Design an experiment to find out what plants need to grow	Know the difference between seeds and bulbs	Describe the life cycle of a plant	Describe what plants need to grow and stay healthy	Understand that different plants survive in different environments	Observe and record the growth of plants over time
Key vocabulary	predict investigate compare experiment method	seed bulb grow seedling compare	pollen life cycle germination reproduce seedling	conditions healthily temperature nutrients energy	forest desert thrive conditions survive	healthy thrive energy results greenhouse
Creative context						
Substantive knowledge	Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy	Observe and describe how seeds and bulbs grow into mature plants	Observe and describe how seeds and bulbs row into mature plants	Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy	Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy	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
Disciplinary knowledge	Asking simple questions and recognising that they can be answered in different ways Performing simple tests	Identifying and classifying Observing closely, using simple equipment	Using their observations and ideas to suggest answers to questions	Performing simple tests Using their observations and ideas to suggest answers to questions	Identifying and classifying	Performing simple tests Using their observations and ideas to suggest answers to questions

Science – Year 2

						Gathering and recording data to help in answering questions
Recorded learning	Use investigation handouts (Developing Experts) to write the question they will investigate. Draw and explain what they will do to find out the answer. Encourage the children to carry out different tests so you can gather results as a class. Set up investigations.	Dissect a selection of seeds and bulbs and observe them with a microscope or magnifying glass. Draw the inside of a seed and a bulb. Explain 3 differences between a seed and a bulb. Challenge Task: include scientific language, such as 'tunic'. Explain why plant bulbs are quite large. Can they identify which plants start as a bulb or as a seed?	Create a diagram to show the life cycle of a plant and label their diagrams. Challenge Task: Add scientific explanations at each stage of their diagram, e.g. plants produce flowers and pollen which are spread by bees. Encourage descriptive observations about the plant at each stage, e.g. at the seedling stage, the plant is fragile.	Describe what plants need to grow and stay healthy through diagrams and written explanations. Challenge Task: Describe what would happen to a plant that did not receive all the essential elements it needs to stay healthy.	Sort pictures of plants into their natural habitat. Describe what the conditions might be like for the plant. Challenge Task: Explain how the plant is able to grow there.	Record results of investigation and explain what happened to their plant and why. How did the results compare to their predictions? Challenge Task: Provide an explanation as to why the plant did or did not thrive. How did the results compare to their predictions? How did their plant compare to the control plant?
Future learning	Year 3 - requirements of plants for life and growth, lifecycle and functions of parts of flowering plants					