Science curriculum – Clowne Infant and Nursery School

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Throughout the year in Foundation Stage One and Two, there are activities planned for the children in the continuous provision covering the different aspects of Science in Understanding the World. The children have the opportunity to explore different science concepts throughout the year, such as light, sound, magnets, forces, materials and growth alongside adult led activities.						
Nursery	To show interested in the immediate environment, particularly the outdoors. To explore using all of my senses. To begin to notice things around me.	To show an interested in the natural world around me. To begin to talk about what they can see. To recognise themselves as a baby and how they have changed over time.	To enjoy spending time outside and can talk in simple terms about the features of the outdoor environment. To notice when things change and begin to make comments about these.	To notice and talk about what they can see in the natural world. To start to ask questions to find out more. To build up their knowledge about living things and the names of different plants.	To build up their knowledge about living things and the names of different animals.	To confidently talk about the world around them and people or places that are familiar to them. To talk about how things grow and change and recognise that other places might have features different to where they live.
			To know the importance of looking after our environment and all living things. To know what type of weather we have where they live.	To know that living beings follow a similar growth pattern and make comparisons. To know what plants need to grow (light, water, soil, space) To know that we all live on a planet called Earth.	To know that different creatures live in different places based on their characteristics, e.g. farm animals can live around people, however wild animals can be dangerous so we have to be careful. To know that wild animals live in forests/jungles/ safari and sometimes zoo's or aquariums. To know that different animals and birds produce food that we consume and there are different people who make food that we can buy in the supermarket. To know the names of some baby farm animals.	To know about where some foods come from. To know that it is important to eat healthily and look after our bodies.

Reception	Observe and explores the arrival of autumn and describes what they see, hear and feel.	Explores and observes autumn changes in the world around them.	Observes and describes what they see, hear and feel when outside in winter. Investigates freezing and melting.	Observes and describes what they see, hear and feel when outside in spring.	Observe the life cycle of a butterfly, Explores what is meant by 'waterproof' 'floating' and 'sinking'. Plants seeds and supports them to grow. Make predictions with various materials and carries out tests. Observe mini beasts and other creatures.	Observes and describes what they see, hear and feel when outside in the summer. Explores the forces of push and pull with clay and playdough.
	Knows that in autumn many leaves turn red, orange, yellow or brown and fall off the trees. Knows the name of conkers and acorns.	Knows that in autumn many of leaves turn red, orange, brown or yellow and fall to the ground.	Knows that in winter many trees are bare, we may feel cold and that we sometimes see snow, ice and frost. Knows that we can melt ice using heat or salt.	Know that in spring many plants and flowers start to grow and know that some trees grow blossom. Know that natural environments around the world are not all the same as in Clowne.	Knows and can sequence the different stages of the butterfly. Knows that plants need light, sun, food and water to grow. Knows the names of some flowers and mini beasts.	Knows that in summer the temperature is warmer and we have more day light. Knows the meanings of the words push and pull and uses them when manipulating malleable materials.
Year 1	**Seasonal Changes** Reflecting on their own experiences, children learn about the four seasons and the weather associated with each. Pupils explore how seasonal changes affect trees, daylight hours and our choices about outfits. They plan and carry out their own weather reports, considering the knowledge required for this job.	**Everyday materials** Identifying the difference between objects and materials, children explore their surroundings to find examples of each. They scientifically investigate the properties of materials and begin to sort and group materials by their properties. Pupils discover that some materials are a result of scientific experimentation and that some materials can be recycled to conserve resources.	**Sensitive bodies** Familiarising themselves with the basic parts of the human body, children investigate their senses through stimulating experiences that highlight how we interact with the world around us. They develop an understanding of the importance of our senses and how science can support those who have lost sensory function.	**Comparing animals** Studying both local and global animals, children recognise common features and use this information to make comparisons and begin to classify animals. Pupils collect data by surveying class pets, to then explore ways in which this information can be recorded. They develop their understanding of classification by comparing the dietary habits of different animals and use their	**Introduction to plants** Identifying the key features of a plant, children describe important structures and make comparisons between different plants. Pupils use investigative skills to record the growth of a plant over time and begin to reflect on factors that will affect its development. They begin to explore how plants are used by humans and grow their own herb garden.	**Making connections** This unit aims to bring together pupils' science learning from the other units and help them to see connections between the key areas.

				knowledge and imaginations to take on the role of a zookeeper.		
Year 2	**Habitats** Considering the life processes that all living things have in common, pupils classify objects into alive, was once alive or has never been alive. Pupils explore global habitats, naming plants and animals that can be found there. They learn how a range of different living things depend on each other for food or shelter. Pupils explore this further by creating food chains to show the sequence that living things eat each other for energy to grow and stay healthy.	**Microhabitats** Developing their understanding of scientific enquiry, pupils learn that scientists use a range of skills to answer questions. They discover that microhabitats provide what minibeasts need to survive and carry out a survey to find out where different minibeasts live in the school grounds. They practise asking scientific questions and follow a method to investigate which conditions woodlice prefer. Pupils explore the job role of a botanist by identifying flowering plants.	**Uses of everyday materials** Reflecting on their knowledge of different materials, children begin to explain why materials are used in certain contexts. They develop enquiry skills to investigate the properties of materials and explore the science of inventing new ones.	**Life cycles and health** Studying the life cycles of various animals, children learn what animals need to survive and how they change over time. Pupils collect data that allows them to observe changes in their peers, while also developing their ability to take measurements and record data. They consider the role of expert scientific knowledge in careers that inform people to make healthy choices.	**Plant growth** Using their prior knowledge of important plant structures, children explain what factors are needed for successful growth and compare how those needs vary across different plants. They grow plants from seeds and bulbs to ascertain the needs for initial development and compare this to the survival needs of plants in later growth phases. Pupils take their own measurements and reflect on historical examples to understand how conclusions can be drawn.	**Making connections** This unit aims to bring together pupils' science learning from the other units and help them to see connections between the key areas.