Science Autumn Spring Summer					
National Programme of Study Key Stage 1		National Programme of Study Key Stage 2			
• Working scientifically • Plants • Animals including humans • Everyday materials and their uses • Seasonal changes • Living things and their habitats		• Working scientifically • Plants • Animals including humans • Rocks • Light • Forces and magnets • Living things and their habitats • States of matter • Sound • Electricity • Properties and changes of materials • Earth and space • Evolution and inheritance			
Essential Areas of Learning		End of Year 1 Completed in both cycles	End of Year 3 Key Stage 1 N.C. (Cycle 1) Key Stage 2 N.C. (Cycle 2)	End of Year 5 Key Stage 2 N.C. (Cycle 1) Key Stage 2 N.C. (Cycle 2)	End of Year 6 Completed in both cycles
Programme of Study	**1. Working scientifically** Completed in both cycles for all year groups	1. Ask simple questions 2. Observe closely using equipment 3. Perform simple tests which include identifying and classifying 4. Use observations to suggest answers to questions 5. Gather and record data to answer questions	1. Ask simple questions and know answers can be given in different ways 2. Take observations and record findings using data loggers and thermometers 3. Set up simple practical enquiries 4. Gather, record and present data 5. Record findings using scientific language and labelled diagrams 6. Report on findings by presenting results 7. Use results to draw simple conclusions 8. Identify simple scientific ideas 9. Use scientific evidence to answer questions	1. Plan different scientific enquiries with variables to answer questions 2. Take accurate measurements using standard units 3. Gather and record data to answer questions 4. Present findings using diagrams and tables 5. Report enquiry findings using oral and written explanations 6. Use results to make predictions and raise further questions 7. Identify similarities, differences and changes to simple scientific ideas. 8. Use scientific evidence to support arguments	1. Control different variables in scientific enquires 2. Take repeat measurements with accuracy and precision 3. Record complex data using scatter, bar and line graphs 4. Use data to make predictions to set up further comparative tests 5. Present findings to include conclusions, causal relationships. 6. Explain degrees of trust in results using displays and presentations. 7. Identify scientific evidence used to refute ideas.

2. Plants	1. Identify and name common wild and garden plants 2. Understand the difference between evergreen and deciduous trees 3. Describe the basic structure of common flowering plants	1. Observe and describe how seeds and bulbs grow into mature plants 2. Explore and describe how plants need water, light and temperature to stay healthy 3. Identify the functions of different parts of plants 4. Understand the requirements of plants for life and growth 5. Investigate how water is transported in plants 6. Understand the life cycle of flowering plants		
3. Animals including humans	1. Identify and name examples of fish, amphibians, reptiles, birds and mammals 2. Compare the structures of fish, amphibians, reptiles, birds and mammals 3. Know differences between carnivores, herbivores and omnivores 4. Identify and label the basic parts of the human body 5. Recognise which part of the body is associated with each sense	1. Understand that animals have offspring which grow into adults 2. Understand the basic needs of animals for survival 3. Understand the importance of hygiene, exercise and eating different types of food 4. Identify that animals, including humans, need the right types of nutrition and they cannot make their own food; they get nutrition from what they eat 5. Identify that humans and some other animals have skeletons and muscles for support, protection and movement	1. Understand the changes as humans grow into old age 2. Understand the parts of and functions of the human digestive system 3. Identify the different types of teeth in humans and their functions 4. Construct and interpret food chains and their components	1. Identify parts of the circulatory system 2. Describe functions of the heart, blood and blood vessels 3. Understand the impact of diet, exercise and drugs 4. Understand how nutrients and water are transported within animals
4. Everyday materials and their uses	1. Identify objects and their materials 2. Name everyday materials: wood/ plastic/glass/metal/ water/rock 3. Describe simple properties of everyday materials 4. Compare and group materials on their basic physical properties	1. Identify and compare the suitability of everyday materials. Including: wood/ metal/plastic/glass/ brick/rock/paper/ cardboard 2. Explore how solid objects can be changed shape by squashing, bending, twisting and stretching		

5. Seasonal changes	1. Identify changes across the 4 seasons 2. Observe and describe weather associated with the seasons 3. Know how the length of a day varies in the seasons			
6. Living things and their habitats		1. Classify into living, dead and never been alive 2. Identify and name a variety of plants and animals in their habitats including micro-habitats 3. 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 plants and how they depend on each other 4. Describe how animals obtain their food from plants and other animals using the idea of a simple food chain and identify different sources of food	1. Understand living things can be grouped in different ways 2. Use classification keys to group, identify and name living things in their environment 3. Understand how environments change 4. Know how changes to environments can pose dangers to living things 5. Describe differences in lifecycles of: mammals, amphibians, insects and birds 6. Describe the process of reproduction in some plants and animals	1. Describe how living things can be classified into broad groups 2. Understand how the groups are created through observing similarities and differences 3. Give reasons for classifying plants and animals based on characteristics
7. Rocks		1. Compare and group together different kinds of rocks 2. Identify simple physical properties of different rocks 3. Describe simply how fossils are formed 4. Understand soils are made from rocks and organic matter		
8. Light		1. Understand we need light to see things 2. Know that dark is the absence of light 3. Recognise that light is reflected from surfaces 4. Understand light from the sun can be dangerous 5. Recognise how shadows are formed and how their shape can change.		1. Recognise light travels in straight lines 2. Understand how objects can be seen 3. Understand how humans see things 4. Explain why shadows have the same shape as the object they're from

9. Forces and magnets		1. Compare how things move on different surfaces 2. Understand that some forces need contact but magnets can work from afar 3. Observe how magnets attract or repel different materials 4. Compare and group materials according to their magnetic properties 5. Describe magnets as having poles 6. Predict whether 2 magnets will attract or repel each other	1. Explain how gravity acts between Earth and falling objects 2. Understand how some mechanisms allow a smaller force to have a greater effect	1. Identify the effects of air resistance 2. Identify the effects of water resistance 3. Understand the effects of friction on moving surfaces
10. States of matter			1. Compare and group materials together according to solids, liquids or gases 2. Observe that some materials change state when heated or cooled 3. Measure the temperature at which changing states occurs in degrees C. 4. Identify evaporation and condensation in the context of the water cycle 5. Understand the links between evaporation and temperature	
11. Sound			1. Identify how sounds are made 2. Recognise sounds travel through a medium to the ear 3. Find patterns between pitches and the objects that created them 4. Identify patterns between volume and the strength of vibrations 5. Recognise sounds are affected by the distance travelled	

	12. Electricity			1. Identify common appliances that rely on electricity 2. Create a simple circuit 3. Identify when a bulb will light in a simple series circuit 4. Recognise a switch opens and closes a circuit 5. Understand how a switch can affect the lighting of a bulb 6. Recognise common insulators and conductors	1. Associate the brightness of a lamp with the number of volts in a cell 2. Compare the variations in how components function 3. Use correct circuit symbols in diagrams
	13. Properties and changes of materials			1. Compare and group materials on the basis of their properties 2. Know some materials will dissolve in liquid and can be reversed 3. Understand mixtures can be separated 4. Give reasons for uses of everyday materials 5. Understand differences between reversible and irreversible changes	
	14. Earth and Space			1. Describe the movement of the Earth related to the solar system 2. Describe the movement of the Moon compared to the Earth 3. Understand the Sun, Earth and Moon as spherical bodies 4. Explain day and night through the Earth's rotation	
	15. Evolution and inheritance				1. Recognise living things have changed over time 2. Understand fossils provide information from millions of years ago 3. Recognise living things can produce varieties in offspring 4. Identify how plants and animals have adapted to their environment 5. Understand adaptation can lead to evolution

Impact					
Pupils who have <u>not</u> met the National Curriculum Statements for the cycle objectives taught so far *(please reference appropriate objective numbers which have not been met e.g. objective 2.4)*		**Pupils who have met the National Curriculum Statements for the cycle objectives taught so far**		**Pupils who consistently work beyond cycle objectives taught so far**	
Cycle 1	**Cycle 2**	**Cycle 1**	**Cycle 2**	**Cycle 1**	**Cycle 2**