



Science Progression at Weeton St Michael's Primary School



CURRICULUM SUBJECT:	Science	SUBJECT LEADS:	Luke Smith	
What are the Y6 end of school end goals?	• To know the difference between physics, biology and chemistry and the part they play in understanding our world. • To be able to apply enquiry skills to a range of scientific concepts. • To ask questions about the world around them and find scientific answers. • Be inspired by scientists, both every day and famous, and understand the importance of scientific advances. • Understand the life of humans, plants and animals: their needs, their habitats and how these have changed over time. • To develop a good understanding of the human body and impact of lifestyle on health and body functions. • To have respect and understanding of the global or local environment and the impact humans have on the world.			
How is the curriculum at Weeton St Michael's Primary School sequenced towards these end points?				
EYFS				
I am a Scientist	1. To explore ways to make objects move 2. To explore different sounds 3. To explore whether objects float or sink 4. To explore freezing and melting 5. To explore how light makes shadows			
Animal Adventures	1. To sort objects into living and non-living 2. To find and describe minibeasts 3. To sort and describe farm animals 4. To sort animals based on where they live 5. To compare my home with a zoo animal home			
Our Beautiful Planet	1. To recognise some ways to look after the planet 2. To identify and name plants 3. To identify and name plant parts 4. To explore what helps seeds grow 5. To recognise some ways to look after the planet			
Year 1/2 Cycle A			Year 1/2 Cycle B	
Forces and Space: Seasonal Changes	1. To identify how the weather changes across the four seasons 2. To identify events and activities that take place in different seasons		Living things and their habitats: Habitats	1. To identify some of the characteristics of living things 2. To recognise the difference between things that are alive, were once alive or have never been alive 3. To identify plants and animals in different habitats



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	3. To recognise how trees change across the four seasons 4. To recognise that daylight hours change across the four seasons. 5. To observe changes across the four seasons 6. To plan and carry out a weather report		4. To identify how a habitat provides animals and plants with what they need to survive 5. To recognise how animals and plants depend on each other 6. To recall how animals get their food from plants and other animals
Materials: Everyday materials	1. To identify everyday materials 2. To recognise the difference between objects and materials. 3. To describe the properties of materials. 4. To group materials based on their properties (absorbency). 5. To group materials based on their properties (waterproofness). 6. To group materials based on their properties (toughness)	Animals including humans: Life cycles and health	1. To identify different stages of the human life cycle 2. To know which offspring come from which parent animal 3. To observe and measure growth in humans 4. To identify and list the basic needs for survival for humans and animals 5. To recognise the importance of exercise and personal hygiene 6. To identify how to have a balanced diet
Animals: Sensitive bodies	1. To name the body parts used for each sense 2. To identify the body parts used for the sense of taste and touch 3. To identify the body parts used for the sense of smell and sight 4. To identify the body part used for the sense of hearing 5. To recognise how the senses are used in everyday life	Materials: Use of everyday materials	1. To recognise that objects are made from materials that suit their uses 2. To recognise that objects are made from materials that suit their uses 3. To recognise that the shape of some solid objects can be changed 4. To compare the suitability of materials for particular uses 5. To recognise that the strength of some materials can be changed 6. To compare the suitability of materials for particular uses
Making Connections: Investigating	1. To observe changes across the seasons 2. To describe and compare the features of animals 3. To identify differences in animal features	Animals: comparing animals	1. To identify and group animals 2. To describe a variety of animals 3. To compare the features of animals



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<i>Science through stories</i>	4. To describe the properties of everyday materials 5. To identify animals that are carnivores, herbivores and omnivores		4. To identify animals that are carnivores, herbivores and omnivores 5. To recognise animals that make suitable pets 6. To describe and compare the structure of animals
<i>Plants: Introduction to plants</i>	1. To identify plants in the school grounds 2. To identify parts of a flowering plant 3. To identify and name wild and garden plants 4. To identify and name deciduous and evergreen trees 5. To recognise that new plants come from seeds and bulbs 6. To recognise the importance of a scientist's role	<i>Plants: Plant growth</i>	1. To recognise that seeds need certain conditions for growth 2. To recognise that seeds and bulbs contain what they need to grow into a plant. 3. To describe what seeds need to germinate 4. To describe the effect of light on plant growth 5. To identify stages of a plant's life cycle 6. To recognise what plants need for healthy growth
Year 3/4 Cycle A		Year 3/4 Cycle B	
<i>Materials: Rocks and soils</i>	1. To group rocks using their appearance 2. To group rocks using their physical properties 3. To describe the process of fossil formation 4. To identify fossils and group rocks accordingly 5. To compare soils and how they were formed 6. To describe a soil sample using sedimentation	<i>Energy: Electricity and circuits</i>	1. To recognise how electrical appliances are powered 2. To construct an electrical circuit 3. To explain the use of switches in a circuit 4. To explain the use of materials as electrical conductors or insulators 5. To investigate what affects bulb brightness 6. To explain how to be safe around electricity
<i>Forces and space: Forces and Magnets</i>	1. To describe the effects of contact forces 2. To recognise the effects and uses of forces 3. To interpret how and why things move differently on different surfaces 4. To describe the effects of magnets 5. To compare the properties of different types of magnets. 6. To explain the uses of magnets	<i>Animals: Digestion and food</i>	1. To describe the function of the human digestive system 2. To recognise the different types of human teeth and their roles in eating 3. To explain how to care for our teeth 4. To recognise that differences in teeth relate to an animal's diet 5. To recognise producers, predators and prey in food chains 6. To recognise that animal poo can give us clues about digestion, teeth and diet



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Plants: Plant reproduction	1. To identify the growth and survival needs of plants 2. To describe the relationship between structure and function in plants 3. To investigate how water is transported in plants 4. To explore the role of flowers in the life cycle of a plant 5. To apply knowledge of plant life and growth 6. To explore seed dispersal methods	Energy: Sound and vibrations	1. To describe how sounds are made 2. To describe how sounds are heard through different mediums 3. To describe the relationship between vibration strength and volume 4. To describe the relationship between volume and distance 5. To describe pitch and how to change it 6. To explain how insulating materials can be used to muffle sound
Energy: Light and shadows	1. To explain the role of light sources 2. To compare light reflecting on different surfaces 3. To recognise which materials cast a shadow 4. To summarise how shadows change throughout the day 5. To investigate how the distance of the light source affects the size of its shadow 6. To tell a story using shadow puppets	Materials: States of Matter	1. To identify solids using their properties 2. To identify liquids and gases using their properties 3. To describe melting and freezing 4. To describe condensing and evaporating 5. To describe the different stages of the water cycle 6. To describe how temperature affects evaporation rates and the water cycle
Making connections: Does hand span affect grip strength?	1. To revise the units Movement and nutrition and Rocks and soil 2. To revise the units Movement and nutrition and Plant reproduction 3. To revise the unit Forces and magnets 4. To revise the unit Uses of materials 5. To revise the units Light and shadows and Movement and nutrition	Living things: Classification and changing habitats	1. To group animals in various ways 2. To group plants in various ways 3. To make and use classification keys 4. To recognise and describe different habitats and their inhabitants 5. To recognise the impact humans can have on habitats 6. To recognise the impact of natural disasters on habitats
Year 5/6 Cycle A		Year 5/6 Cycle B	



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Materials: Mixtures and separation	1. To describe mixtures 2. To explain the process of sieving 3. To explain the process of filtering 4. To describe solutions and how they can be identified 5. To identify which factors affect the time taken to dissolve 6. To describe the process of evaporation	Energy: Circuits, batteries and switches	1. To use recognised symbols for electrical components 2. To predict and present results for electrical circuits. 3. To recognise a link between the number of components and resistance 4. To identify ways to change voltage within an electrical circuit 5. To investigate how voltage affects bulb brightness 6. To apply knowledge of circuits and components to a practical solution
Animals including humans: Human timeline	1. To describe how humans change from babies through to old age 2. To identify changes in males and females as a result of puberty 3. To explore the gestation periods of humans and other animals	Living things and their habitats: Evolution and inheritance	1. To explain why there are differences within a species 2. To recognise the inheritance of characteristics in plants and animals 3. To explain why adaptation is necessary 4. To model how natural selection affects population size 5. To describe the theory of evolution 6. To recognise evidence that can be used for evolution
Living things: Life cycles and reproduction	1. To describe the life cycle of a plant, including the reproductive stage 2. To describe the life cycle of a mammal 3. To describe the life cycle of a bird and compare it with that of a mammal 4. To describe the life cycle of an amphibian 5. To describe the life cycle of an insect and compare it with that of an amphibian 6. To describe asexual reproduction in plants	Living things and their habitats: Classifying big and small	1. To explain how organisms are classified using the Linnaean system 2. To classify the cold-blooded vertebrate groups using their common characteristics 3. To classify the warm-blooded vertebrate groups using their common characteristics 4. To classify invertebrates using their characteristics 5. To describe how the plant kingdom is organised (based on shared characteristics) 6. To describe and classify micro-organisms
Forces and space: Unbalanced forces	1. To describe gravity and its effects 2. To describe air resistance and its effects 3. To describe water resistance and its effects 4. To describe friction and its effects	Animals including humans:	1. To identify factors that affect our health and how to reduce their negative impact 2. To summarise the key structures and purpose of the circulatory system



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	5. To describe the effects of levers, pulleys and simple machines on movement 6. To describe the relationship between lever length and effort	Circulation and health	3. To identify the key roles of blood 4. To explore the relationship between animal size and heart rate 5. To investigate the relationship between exercise and heart rate 6. To describe the relationship between heart rate and fitness
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