Science – Progression Map EYFS-Year 6

Our Vision: Develop scientific knowledge and conceptual understanding through biology, chemistry, and physics so that they can answer scientific questions about the world around them. To enable them to understand the uses and implications of science, today and for the future; teaching them to be able to inquire and question.

Year Group	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
R	Marvelous Me! Starting school / my new class New Beginnings Superheroes People who help us / Careers Our families and community How have I changed? **My family** / PSED focus Things I like What am I good at? How do I make others feel? Being kind / staying safe **Working scientifically** Can I talk about my family and my community? Can I name and describe people who are familiar to me?	Let's Celebrate! Autumn and Fireworks Little Red Hen – Harvest **Night and day animals** Favourite stories Library visits (in school) Birthdays and celebrations The Nativity At the Panto Christmas Lists Letters to Father Christmas **Working scientifically** Can I interact with the outdoors to foster curiosity? Can I have freedom to touch, smell and hear the natural world around them during hands-on experiences? Can I understand the seasons?	The World's Wonders **Animals around the world** **Climates / Hibernation** **Land of snow and ice** Hot and cold climates - clothes Edward Wilson Chinese New Year **Working scientifically** Can I look at changes over time and decay? Can I describe and comment on things I have seen whilst outside, including plants and animals. Can I understand changes states of matter?	Once Upon a Time **Blast Off!** **Who was Neil Armstrong?** Traditional tales –The Gingerbread Man Little Red Riding Hood Around the Town How do I get there? Where in the world have you been? Where do we live in the UK /world? **Working scientifically** Can I describe and comment on things I have seen whilst outside, including plants and animals. Can I understand changes states of matter?	The Brilliant Bug Ball **Plants & Flowers** **Minibeasts** **Life cycles** **Weather / seasons** The great outdoors Planting seeds Make a sculpture: Andy Goldsworthy Matisse - Snail Reduce, Reuse & Recycle Fun Science / Materials **Working scientifically** Can I care and grow plants? Can I look at changes over time and decay? Can I describe what I see and hear outside? Can I understand the importance of exercise and a healthy diet? Can I understand the seasons?	Ocean Treasures **Under the sea** **Pirate adventures** Where in the world shall we go? Send me a postcard Marine life **Fossils – Mary Anning** Seaside's in the past Compare: Now and then Seaside art Can I understand the world around me? **Working scientifically** Can I have frequent opportunities for outdoor play and exploration? Can I touch, smell and hear the natural world around me during hands-on experiences. Can I observe the outside world?
Y1	**Everyday materials** Can I distinguish between an object	**Seasonal Change** Can I observe and know about the	**Seasonal change** Can I observe and know about the	**Seasonal change** Can I notice the changes form winter to spring?	**Plant life** Can I Identify and naming a variety of	**Plant life**

	and the material from which it is made? Can I identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock? Can I describe the simple physical properties of a variety of everyday materials? **Working scientifically** Can I suggest the next step, or sequence of steps, in a plan? Can I group things according to a criterion I have been asked to consider e.g hard/soft shiny/dull?	changes in the seasons? Can I name the seasons and know about the type of weather in each season? **Working scientifically** Can I use my observations and ideas to suggest answers to questions? Can I gather and record data to help in answering questions?	changes in the seasons? **The human body:** Do I know the parts of the human body? Can I talk about the 5 senses? **Working scientifically** Can I use my observations and ideas to suggest answers to questions?	**Animals including humans:** Can I recognise the difference between a question and a statement? Can I use different stems to shape my questions? Do I know and Can I name a variety of animals? Can I classify animals by what they eat. Can I sort living and non-living things? **Working scientifically** Can I classify animals by what they eat. Can I sort living and non-living things?	common wild and garden plants? Can I identify similarities and difference between plants? Can I use the key words deciduous and evergreen when studying tree life? Can I identify and describing the structure of flowering plants- including trees? **Working scientifically** Can I work scientifically by observing closely, using simple equipment such as a magnifying glass? Can I work scientifically by identifying and classifying depending on features noted?	Can I use the key words deciduous and evergreen when studying tree life? Can I identify and describe the structure of flowering plants- including trees? **Working scientifically** Can I work scientifically by observing closely, using simple equipment such as a magnifying glass? Can I work scientifically by identifying and classifying depending on features noted?
Y2		**Materials and their properties** Can I identify the best material for Mrs Lather's mop? Can I identify and name a range of materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard? Can I explain why a material might or	**Humans including animals** Can I explore and compare the differences between things that are living, dead, and things that have never been alive? Can I understand the basic stages in a life cycle for animals including humans?	**Food and food chains** Can I identify things that are living, dead and never lived? Can I explain how a specific habitat provides for the basic needs of things living there (plants and animals)? Can I identify and name plants and animals in a range of habitats? Can I match living things to their habitat? Can I explain how animals find their	**Plants and Animals** Can I explain how seeds and bulbs grow into plants? Can I explain what plants need in order grow and stay healthy (water, light & and suitable temperature? **Working scientifically** Can I use a microscope to find out more about small creatures and plants?	**Plants and Animals** Do I know and can I name the roots, trunk branches and leaves of a tree? **Working scientifically** Can I decide which questions can be answered practically and which cannot? Can I suggest my own questions for investigation, e.g. Why do some trees lose their leaves in Autumn and others do not?

		might not be used for a specific job? Can I explain how materials can be changed by squashing, bending, twisting and stretching? **Working scientifically** Can I describe the observations and measurements I might need to make? Can I describe observations and use measures to help me find out more and answer questions? Can I recognise the links between cause and effect in familiar situations?	Can I talk about animals and human babies and how they grow? Can I describe what animals and humans need to survive? Can I describe that exercise, eating the right amounts of different types of food, and hygiene are all important for humans? **Working scientifically** Can I suggest my own questions for investigation?	food? Can I name different sources of food for animals? Can I use a simple food chain? **Working scientifically** Can I make observations? Can I sort and classify?	Can I describe the observations and use measures to help me find out more and answer questions.	Why do some animals have underground habitats?
Y3	**Rocks and Soils** Can I compare and group rocks based on their appearance and physical properties giving a reason? Can I explain how fossils are formed? Can I explain how soil is made? Can I explain the difference between sedimentary, metamorphic and igneous rock? Can I suggest questions for investigations, e.g.	**Animals including humans** Can I explain the importance of a nutritious, balanced diet? Can I explain how nutrients, water and oxygen are transported within animals and humans? Can I describe the skeletal system of a human? Can I describe the muscular system of a human? Can I explain the purpose of the	**Forces & Magnets** Can I describe how objects move on different surfaces? Can I explain how some forces require contract and some do not, giving examples? Can I explain how objects attract and repel in relation to objects and other magnets? Can I predict whether objects will be magnetic and	**Forces & Magnets** Can I describe how objects move on different surfaces? Can I understand how some forces require contract and some do not, giving examples? Can I explain how objects attract and repel in relation to objects and other magnets? Can I predict whether objects will be magnetic and carry out an enquiry to test this out? Can I understand	**Plants** Can I understand the function of different parts of flowering plants and trees? Can I explain what different plants need to help them survive? Can I explain how water is transported within plants? Can I understand plant life cycle, especially the importance of flowers? **Working scientifically**	**Light** Can I understand that dark is (the absence of light)? Can I understand that light is needed in order to see? Can I understand that light is reflected from a surface? Can I demonstrate how a shadow is formed? Can I explore shadow size and explain changes? Can I understand the danger of direct sunlight and describe how to keep protected? **Working scientifically**

	Why does my shadow change during the day? Where does a fossil come from? **Working scientifically** Can I use basic equipment correctly, safely and accurately? Can I group information according to common factors? Can I use diagrams, keys, bar charts and tables? E.g volcanoes	skeleton in humans and animals? **Working scientifically** Can I use diagrams, keys, bar charts and tables? Can I describe what has happened making comparisons where appropriate?	carry out an enquiry to test this out? Can I understand how magnets work? Can I predict whether magnets will attract or repel and give a reason? **Working scientifically** Can I select from a range of equipment the best items to use? Can I say whether what happened was expected? Can I gather and record information using a chart, matrix or tally chart depending on which is most sensible?	how magnets work? Can I predict whether magnets will attract or repel and give a reason? **Working scientifically** Can I select from a range of equipment the best items to use? Can I say whether what happened was expected? Can I gather and record information using a chart, matrix or tally chart depending on which is most sensible?	Can I set up a fair test with different variables? Can I make a prediction where there is a plausible reason as to why I have done so? Can I use a thermometer and know there are two main scales?	Can I describe the observations or measurements I need to make and can spot when a plan will lead to an unfair test? Can I use a data logger to check the lightness and darkness of a room? Can I link cause and effect when describing my observations? Can I suggest questions for my investigations e.g. Why does the my shadow change during the day?
Y4	**Animals including humans** Can I identify and name the parts of the human digestive system? Can I describe the functions of the organs in the human digestive system? Can I identify and know the different types of teeth in humans? Can I explain the functions of different human	**Living things and their habitats** Can I group living things in different ways? Can I use classification keys to group, identify and name living things? Can I create classification trees to group identify and name living things (for others to use)? **Working scientifically**	**Living things and their habitats** Can I explain how changes to an environment could endanger living things)? **Working scientifically** Can I use diagrams, keys, bar charts and tables? Can I explain to others what I have found out?	**Sound** Can I explain how sound is made? Can I describe how sound waves travel from a source to our ears? Can I explain how sounds are made associating some of them with vibrating? Can I describe the correlation between pitch and the object producing a sound?	**Electricity** Can I identify and name appliances that require electricity to function? Can I construct a series circuit? Can I identify and name the components in a series circuit (including cells, wires, bulbs, switches and buzzers)? Can I draw a circuit diagram?	**States of matter** Can I compare and group materials based on their state of matter (solid, liquid, gas)? Can I explain how some materials change state? Can I explore how materials change state? Can I measure the temperature at which materials change state?

	teeth? Can I use food chains to identify producers, predators and prey? Can I construct food chains to identify producers, predators, and prey? **Working scientifically** Can I make a general statement about simple patterns evident in a set of results. Can I make suggestions about how things could be improved? Can I work scientifically by finding out what damages teeth, observing the effects different liquids have on egg shell?	Can I present my findings using written explanations and diagrams when needed? Can I make sense of my findings and draw conclusions which helps me understand more about the scientific information I have learned?	Can I identify differences, similarities and changes related to an enquiry? Can I change my ideas as a result of what I have found out during a scientific enquiry?	Can I describe the correlation between the volume of a sound and the strength of the vibrations that produced it? Can I explain what happens to a sound as it travels away from its source? **Working scientifically** Can I show how to set up a test to compare two things, e.g. I test to see which of two instruments make the highest or lowest sounds? Can I make a prediction and know there is a plausible reason as to why I have done so? Can I make further predictions based on actual results? Can I amend my prediction according to my findings?	Can I predict and test whether a lamp will light within a circuit? Can I describe the function of a switch in a circuit? Can I explain the difference between a conductor and an insulator, giving examples of each? **Working scientifically** Can I gather and record information using a chart, matrix or tally chart depending on which is most sensible? Can I group information according to common factors (e.g. materials that make good conductors or insulators)?	Can I give a simple explanation of the water cycle? Can I explain the part played by evaporation and condensation in the water cycle? **Working scientifically** Can I ask relevant scientific questions, e.g. Why are steam and ice the same thing? Can I show how to set up a fair test and explain why it is fair? Can I show how to use equipment, including thermometers and data loggers to make measurements (e.g. time it takes ice to melt to water in different temperatures)?
Y5	**Materials and changes** Can I compare and group materials based on their properties (e.g. hardness, solubility, transparency, conductivity (electrical & thermal) and response to magnets)? Can I explain how a material dissolves to	**Materials and changes** Can I describe and show how to recover a substance from a solution? Can I explain how some materials can be separated e.g. through filtering, sieving and evaporating?	**Earth and Space** Can I explain the movement of the earth and other planets relative to the sun? Can I explain the movement of the moon relative to the earth?	**Forces** Can I explain what gravity is and its impact on our lives? Can I identify and know the effect of air resistance? Can I identify and know the effect of friction? Can I explain	**Living things and their habitats** Can I comment on the life cycle of different animals, e.g., mammal, amphibian, insect bird? Can I explain the difference between different life cycles?	**Animals including humans** Can I create a timeline to indicate stages of growth in humans? **Working scientifically** Can I explore ideas and raise different kinds of questions? Can I set up an enquiry - based investigation – find

	form a solution; explaining the process of dissolving? eversible and irreversible changes? **Working scientifically** Can I give evidenced reasons why materials should be used for specific purposes? Can I use the data I have generated to make sense of my investigations? Can I present my findings in a range of ways e.g. writing, diagrams, orally? Can I set up a far test?	Can I demonstrate that some changes are reversable and some are not? Can I explain how some changes result in the formation of a new material and this is usually irreversible? Can I explain about reversible and irreversible changes? **Working scientifically** Can I give evidenced reasons why materials should be used for specific purposes? Can I use the data I have generated to make sense of my investigations? Can I present my findings in a range of ways e.g. writing, diagrams, orally? Can set up an investigation when it is appropriate – finding out which materials dissolve or not?	Can I demonstrate how night and day are created? Can I describe the Sun, Earth and Moon (using the term spherical)? **Working scientifically** Can I present my findings in a range of ways e.g. writing, diagrams, orally? Can I give an example of something I have focused on when supporting a scientific theory?	how levers, pulleys and gears allow a smaller force to have a greater effect? **Working scientifically** Can I support my conclusions with evidence? Can I create new investigations which take account of what I have learned previously? Can I use scientific instruments as needed including spring scales for measuring newtons?	Can I explain the process of reproduction in plants? Can I explain the process of reproduction in animals? **Working scientifically** Can I relate causal relationships when studying lifecycles?	out what I know now that we couldn't do as a baby?
Y6	**Light** Can I explain how light travels? Can I demonstrate how we see objects? Can I explain why shadows have the same shape as the object that casts them? **Working Scientifically**	**Light** Can I explain why shadows have the same shape as the object that casts them? Can I describe how simple optical instruments work, e.g., periscope, telescope, binoculars,	**Evolution and inheritance** Can I explain how the Earth and living things have changed over time? Can I say how fossils can be used to find out about the past? Can I explain how the reproduction and offspring	**Living things and their habitats** Can I classify living things into broad groups according to observational characteristics and based on similarities and differences? Can I describe how living things have been classified?	**Electricity** Can I explain how the number and voltage of cells in a circuit links to the brightness of a lamp or the volume of a buzzer? Can I compare and give reasons for why components work and do not work in a circuit? **Working Scientifically**	**Animals including humans** Can I identify and name the main parts of the human circulatory system? Can I explain the function of the heart, blood vessels and blood? Can I explain the impact of diet, exercise, drugs and life-style on health?

	Can I give an example of something I have focused on when supporting a scientific theory? Can I explore ideas and raise different kinds of questions? Can I plan different types of scientific enquiry? Can I set up a fair test?	mirror, magnifying glass, etc.? **Working Scientifically** Can I measure accurately and precisely using a range of equipment as needed, e.g. thermometer, rain gauge? Can I use measurements including capacity, mass, ratio and proportion? Can I decide what observations and measurements to make? Can I decide on the most appropriate formats to present sets of scientific data, such as using line graphs for continuous variables?	(recognising that offspring normally vary and are not identical to their parents)? Can I explain how animals and plants are adapted to suit their environment? Can I link adaptation over time to evolution? Can I explain what evolution is? **Working Scientifically** Can I support my conclusions with evidence? Can I present information in a range of ways? Can I communicate and justify my scientific ideas and talk about how scientific ideas have developed over time?	Can I give reasons for classifying plants and animals in specific way? **Working Scientifically** Can I support my conclusions with evidence? Can I decide on the most appropriate formats to present sets of scientific data, such as using line graphs for continuous variables? Can I present information in a range of ways?	Can I explore ideas and raise different kinds of questions? Can I plan different types of scientific enquiry? Can I set up a fair test? Can I describe what the variables are in a given enquiry and know how to control them? Can I describe what the variables are in a given enquiry and can isolate each one when investigating? Can I use data which I have generated to help make sense of my investigations? Can I use the outcome of test results to make predictions and set up a further comparative and fair tests? Can I make accurate predictions based in information gleaned from my investigations? Can I evaluative when explaining my findings and can identify when further tests and observations might be needed? Can I support my conclusions with evidence?	Can I explain how to keep my body healthy and how it could be damaged? Can I explain the ways in which nutrients and water are transported in animals, including humans? **Working Scientifically** Can I plan different types of scientific enquiry? Can I set up a fair test? Can I describe what the variables are in a given enquiry and know how to control them? Can I describe what the variables are in a given enquiry and can isolate each one when investigating? Can I use data which I have generated to help make sense of my investigations? Can I evaluative when explaining my findings and can identify when further tests and observations might be needed? Can I support my conclusions with evidence?