



Science Whole School Half Termly Overview (Autumn 1 2019)

Year group	Topic	Key Assessment Criteria (ongoing working scientifically throughout each half term)
Year 1	Animals including humans	<ul style="list-style-type: none"> I can name a variety of animals including fish, amphibians, reptiles birds and mammals. I can classify and name animals by what they eat (carnivore, herbivore and omnivore). I can sort animals into categories (including fish, amphibians, reptiles, birds and mammals). I can sort living and non-living things. I can name the parts of the human body that I can see. I can link the correct part of the human body to each sense.
Year 2	Animals including humans	<ul style="list-style-type: none"> I can explain the basic stages in a life cycle for animals, including humans. I can describe what animals and humans need to survive.
Year 3	Light Famous inventors and scientists: looking at convex and concave mirrors	<ul style="list-style-type: none"> I can describe what dark is (the absence of light). I can explain that light is needed in order to see. I can explain that light is reflected from a surface. I can explain and demonstrate how a shadow is formed. I can explore shadow size and explain. I can explain the danger of direct sunlight and describe how to keep protected.
Year 4	Living Things and their Habitats	<ul style="list-style-type: none"> I can group living things in different ways. I can use classification keys to group, identify and name living things. I can create classification keys to group, identify and name living things (for others to use). I can describe how changes to an environment could endanger living things. I can gather, record, classify and present data in different ways to answer scientific questions. I can ask relevant scientific questions. I can use equipment, including thermometers and data loggers to make measurements.
Year 5	Earth and space	<ul style="list-style-type: none"> I can describe and explain the movement of the Earth and other planets relative to the Sun. I can describe and explain the movement of the Moon relative to the Earth. I can explain and demonstrate how night and day are created. I can describe the Sun, Earth and Moon (using the term spherical).
Year 6	Electricity	<ul style="list-style-type: none"> I can explain how the number & voltage of cells in a circuit links to the brightness of a lamp or the volume of a buzzer. I can compare and give reasons for why components work and do not work in a circuit. I can draw circuit diagrams using correct symbols.



Science Whole School Half Termly Overview (Autumn 2 2019)

Year group	Topic	Key Assessment Criteria (ongoing working scientifically throughout each half term)
Year 1	Seasonal changes (Autumn/Winter)	<ul style="list-style-type: none"> I can observe and comment on changes in the seasons. I can name the seasons and suggest the type of weather in each season.
Year 2	Materials Famous inventors and scientists: Charles Macintosh	<ul style="list-style-type: none"> I can identify and name a range of materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard. I can suggest why a material might or might not be used for a specific job.
Year 3	Animals including humans (Nutrition)	<ul style="list-style-type: none"> I can explain the importance of a nutritious, balanced diet. I can explain how nutrients, water and oxygen are transported within animals and humans. I can ask relevant scientific questions I can gather, record, classify and present data in different ways to answer scientific questions.
Year 4	Electricity	<ul style="list-style-type: none"> I can identify and name appliances that require electricity to function. I can construct a series circuit. I can identify and name the components in a series circuit (including cells, wires, bulbs, switches and buzzers). I can draw a circuit diagram. I can predict and test whether a lamp will light within a circuit. I can describe the function of a switch in a circuit. I can describe the difference between a conductor and insulators; giving examples of each.
Year 5	Properties of materials – solids, gases, liquids	<ul style="list-style-type: none"> I can compare and group materials based on their properties (e.g. hardness, solubility, transparency, conductivity, [electrical & thermal], and response to magnets). I can describe how a material dissolves to form a solution; explaining the process of dissolving. I can explain how some changes result in the formation of a new material and that this is usually irreversible.
Year 6	Living things and their habitat	<ul style="list-style-type: none"> I can describe the differences between different life cycles. I can describe the process of reproduction in plants.



Science Whole School Half Termly Overview (Spring 1 2020)

Year group	Topic	Key Assessment Criteria
Year 1	Seasonal changes (Winter/Spring)	<ul style="list-style-type: none"> I can observe and comment on changes in the seasons. I can name the seasons and suggest the type of weather in each season.
Year 2	Materials (including forces acting on them)	<ul style="list-style-type: none"> I can explore how shapes can be changed by squashing, bending, twisting and stretching Famous inventors and scientists: John Boyd Dunlop
Year 3	Human body and skeletons Famous inventors and scientists: Marie Curie	<ul style="list-style-type: none"> I can describe and explain the skeletal system of a human. I can describe and explain the muscular system of a human. I can describe the purpose of the skeleton in humans and animals. I can ask relevant scientific questions. I can use observations and knowledge to answer scientific questions. I can set up a simple enquiry to explore a scientific question. I can gather, record, classify and present data in different ways to answer scientific questions. I can identify differences, similarities and changes related to an enquiry.
Year 4	Animals including humans (digestive system & teeth)	<ul style="list-style-type: none"> I can identify and name the parts of the human digestive system. I can describe the functions of the organs in the human digestive system. I can identify and describe the different types of teeth in humans. I can describe the functions of different human teeth. I can use observations and knowledge to answer scientific questions. I can use findings to report in different ways, including oral and written explanations, presentation.
Year 5	Forces	<ul style="list-style-type: none"> I can explain what gravity is and its impact on our lives. I can identify and explain the effect of air resistance. I can identify and explain the effect of water resistance. I can identify and explain the effect of friction. I can explain how levers, pulleys and gears allow a smaller force to have a greater effect.
Year 6	Evolution	<ul style="list-style-type: none"> I can describe how the earth and living things have changed over time. I can explain how fossils can be used to find out about the past. I can explain about reproduction and offspring (recognising that offspring normally vary and are not identical to their parents). I can explain how animals and plants are adapted to suit their environment. I can link adaptation over time to evolution. I can explain evolution.



Science Whole School Half Termly Overview (Spring 2 2020)

Year group	Topic	Key Assessment Criteria
Year 1	Materials	<ul style="list-style-type: none"> I can distinguish between an object and the material it is made from. I can explain the materials that an object is made from. I can name wood, plastic, glass, metal, water and rock. I can describe the properties of everyday materials. I can group objects based on the materials they are made from.
Year 2	Plants	<ul style="list-style-type: none"> I can describe how seeds and bulbs grow into plants. I can describe what plants need in order to grow and stay healthy (water, light & suitable temperature).
Year 3	Forces and Magnets	<ul style="list-style-type: none"> I can explore and describe how objects move on different surfaces. I can explain how some forces require contact and some do not, giving examples. I can explore and explain how objects attract and repel in relation to objects and other magnets. I can predict whether objects will be magnetic and carry out an enquiry to test this out. I can describe how magnets work. I can predict whether magnets will attract or repel and give a reason.
Year 4	Sound	<ul style="list-style-type: none"> I can describe how sound is made. I can explain how sound travels from a source to our ears. I can explain the place of vibration in hearing. I can explore the correlation between pitch and the object producing a sound. I can explore the correlation between the volume of a sound and the strength of the vibrations that produced it. I can describe what happens to a sound as it travels away from its source.
Year 5	Properties and changes to materials – ir/reversible	<ul style="list-style-type: none"> I can describe how a material dissolves to form a solution; explaining the process of dissolving. I can describe and show how to recover a substance from a solution. I can describe how some materials can be separated. I can demonstrate how materials can be separated (e.g. through filtering, sieving and evaporating). I know and can demonstrate that some changes are reversible and some are not. I can explain how some changes result in the formation of a new material and that this is usually irreversible. I can discuss reversible and irreversible changes. I can give evidenced reasons why materials should be used for specific purposes.
Year 6	Health / micro-organisms	<ul style="list-style-type: none"> I can classify living things into broad groups according to observable characteristics and based on similarities & differences. I can describe how living things have been classified. I can give reasons for classifying plants and animals in a specific way.



Science Whole School Half Termly Overview (Summer 1 2020)

Year group	Topic	Key Assessment Criteria
Year 1	Plants	<ul style="list-style-type: none"> I can name a variety of common wild and garden plants. I can name the petals, stem, leaf and root of a plant. I can name the roots, trunk, branches and leaves of a tree. I can name a variety of animals including fish, amphibians, reptiles birds and mammals.
Year 2	Healthy Eating	<ul style="list-style-type: none"> I can describe how animals find their food. I can name some different sources of food for animals. I can explain a simple food chain. I can describe why exercise, a balanced diet and good hygiene are important for humans.
Year 3	Plants Famous inventors and scientists: The Plant Hunters	<ul style="list-style-type: none"> I can describe the function of different parts of flowering plants and trees. I can explore and describe the needs of different plants for survival. I can explore and describe how water is transported within plants. I can describe the plant life cycle, especially the importance of flowers.
Year 4	States of matter	<ul style="list-style-type: none"> I can group materials based on their state of matter (solid, liquid, gas). I can describe how some materials can change state. I can explore how materials change state. I can measure the temperature at which materials change state.
Year 5	Living things - plants	<ul style="list-style-type: none"> I can describe the differences between different life cycles. I can describe the process of reproduction in plants.
Year 6	Animals including humans	<ul style="list-style-type: none"> I can identify and name the main parts of the human circulatory system. I can describe the function of the heart, blood vessels and blood. I can discuss the impact of diet, exercise, drugs and life style on health. I can describe the ways in which nutrients and water are transported in animals, including humans.



Science Whole School Half Termly Overview (Summer 2 2020)

Year group	Topic	Key Assessment Criteria
Year 1	Materials continued Seasonal changes- Summer	<ul style="list-style-type: none"> • I can distinguish between an object and the material it is made from. • I can explain the materials that an object is made from. • I can name wood, plastic, glass, metal, water and rock. • I can describe the properties of everyday materials. • I can group objects based on the materials they are made from. • I can observe and comment on changes in the seasons. • I can name the seasons and suggest the type of weather in each season.
Year 2	Habitats	<ul style="list-style-type: none"> • I can identify things that are living, dead and never lived. • I can describe how a specific habitat provides for the basic needs of things living there (plants and animals). • I can identify and name plants and animals in a range of habitats. • I can match living things to their habitat. • I can describe how animals find their food.
Year 3	Rocks	<ul style="list-style-type: none"> • I can compare and group rocks based on their appearance and physical properties, giving a reason. • I can describe how fossils are formed. • I can describe how soil is made. • I can describe and explain the difference between sedimentary and igneous rock.
Year 4	The water cycle	<ul style="list-style-type: none"> • I can describe the water cycle. • I can explain the part played by evaporation and condensation in the water cycle. • I can set up a fair test and explain why it is fair. • I can make careful and accurate observations, including the use of standard units. • I can draw conclusions and suggest improvements. • I can make a prediction with a reason.
Year 5	Living things and their habitats	<ul style="list-style-type: none"> • I can describe the life cycle of different living things, e.g. mammal, amphibian, insect bird. • I can describe the differences between different life cycles. • I can create a timeline to indicate stages of growth in humans.
Year 6	Light	<ul style="list-style-type: none"> • I can explain how light travels. • I can explain and demonstrate how we see objects. • I can explain why shadows have the same shape as the object that casts them. • I can explain how simple optical instruments work, e.g. periscope, telescope, binoculars, mirror, magnifying glass etc.