

Long Term Overview KS2 Science

Unit Title	Animals Including Humans	Forces	Living Things and their Habitats	Plants	Uses of Everyday Materials and Rocks	Scientists and Inventors
Term	Autumn (1)	Autumn (2)	Spring (1)	Spring (2)	Summer (1)	Summer (2)
No. Wks	7 Weeks	8 Weeks	6 Weeks	6 Weeks	5 Weeks	6 Weeks
Overview Year 3	<ul style="list-style-type: none"> I can identify that animals including humans, need the right types and amount of nutrition and that they cannot make their own food; they get nutrition from what they eat I can name different food groups I know what happens when humans eat the wrong types of foods I can identify that humans and some other animals have skeletons and muscles for support, protection and movement I can discuss how human skeletons and animal skeletons are different 	<ul style="list-style-type: none"> I can compare how things move on different surfaces I can notice that some forces need contact between two objects, but magnetic forces can act at a distance I know that magnets have poles and name the poles of a magnet I can observe how magnets attract or repel each other and attract some materials and not others I know that not all materials are magnetic I can compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials I can predict whether two magnets will attract or repel each other, depending on which poles are facing 	<ul style="list-style-type: none"> I can recognise that they need light in order to see things and that dark is the absence of light I can notice that light is reflected from surfaces. I can name surfaces which reflect light better than others I can recognise that light from the sun can be dangerous and that there are ways to protect their eyes and skin I know not to look directly at the sun I can recognise that shadows are formed when the light from a light source is blocked by a solid object I can find patterns in the way that the size of shadows change 	<ul style="list-style-type: none"> I can identify and describe the functions of different parts of flowering plants; roots, stem / trunk, leaves and flowers I can explore the requirements of plants for life and growth (air, light, water, nutrients from soil and room to grow) and how these vary from plant to plant I can investigate the way in which water is transported within plants I can explore the part that flowers play in the life cycle of flowering plants, including pollination and seed formation I can name the different forms of seed dispersal I can talk through and draw the life cycle of a plant 	<ul style="list-style-type: none"> I can name different types of rocks I can name different types of soils I can describe the appearance of rocks I can describe the appearance of soils I can compare and group together different kinds of rocks on the basis of their appearance and simple physical properties I can describe in simple terms how fossils are formed when things that have lived are trapped within rock I can recognise that soils are made from rocks and organic matter. 	<ul style="list-style-type: none"> I can find plants in the local area I can give the names of four people who brought new plants to Britain I can give four facts about Marie Curie's life and work I can give four facts about William Smith's life and work I can describe how William Smith found fossils I can give four facts about Inge Lehmann's life and work I can identify devices and inventions that use curved mirrors I can describe how the first electromagnets were developed and name a scientist who worked on them I can give five facts about Marie Curie's life and work and use prompts to describe her legacy I can describe how Marie Curie used x rays
Visits/Visitors						

Long Term Overview KS2 Science

Unit Title	Animals Including Humans	Electricity	Living Things and their Habitats	Sound	Uses of Everyday Materials and States of Matter	Scientists and Inventors
Term	Autumn (1)	Autumn (2)	Spring (1)	Spring (2)	Summer (1)	Summer (2)
No. Wks	7 Weeks	8 Weeks	6 Weeks	6 Weeks	5 Weeks	6 Weeks
Overview Year 4	<ul style="list-style-type: none"> I can describe the simple functions of the basic parts of the digestive system in humans I can label a diagram of the human digestive system I can name the different types of teeth in humans I can explain the functions of the different types of teeth I can describe why it is important to clean your teeth regularly I can identify the different types of teeth in humans and their simple functions I can follow a simple food chain I can use the vocabulary of food chains I can construct and interpret a variety of food chains, identify producers, predators and prey I know that food chains show the feeding relationships between plants and animals (including humans) 	<ul style="list-style-type: none"> I know what the words conductor and insulator mean I can identify common appliances that run on electricity I can name electrical components (cells, wires, bulbs, switches and buzzers) I can construct a simple series electrical circuit so a bulb lights and predict whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery I can recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit I know that a bulb will be brighter if there is more than one battery I can draw a simple circuit using the correct symbols I can investigate what makes a good conductor and insulator I can name materials which make good conductors and insulators and explain why we need to insulate our homes 	<ul style="list-style-type: none"> I can recognise that living things can be grouped in a variety of ways I can group living things under different categories I can explain what a classification key is and use different types of keys I can explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment I can label living things in the local and wider environment I can discuss how environments can change (global warming etc) Describe how when environments change, living things can suffer 	<ul style="list-style-type: none"> I can investigate how sounds are made I know that sounds are made when an object vibrates I can explain how vibrations from sounds travel through medium to the ear so that they can be heard I can find and describe relationships between the pitch of a sound and features of the object that produced it I can find relationships between the volume of a sound and the strength of the vibrations that produced it I can recognise that sounds get fainter as the distance from the sound source increases I can describe how the ear works I can label a diagram of the ear I can describe what a sound wave looks like 	<ul style="list-style-type: none"> I can identify the properties of a solid, liquid or gas I can compare and group materials together, according to whether they are solids, liquids or gases I can observe that some materials change state when they are heated or cooled I can measure or research the temperature at which this happens in degrees Celsius I know that when changes happen sometimes they can be reversed and sometimes they can not I can identify that when changes cannot be reversed, new materials are made I can identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature I can describe how evaporation happens quicker the hotter it is 	<ul style="list-style-type: none"> I can describe Gerald Durrell and his conservation work in Madagascar I can give five facts about Alexander Graham Bell's life and work I can present their research into Alexander Graham Bell to an audience I can sort facts about the scientists who discovered oxygen I can sort statements to describe Lord Kelvin's life and work I can use given ingredients to invent their own toothpaste
Visits/Visitors						

Long Term Overview KS2 Science

Unit Title	Animals Including Humans	Forces	Living Things and their Habitats	Earth and Space	Uses of Everyday Materials and Rocks	Scientists and Inventors
Term	Autumn (1)	Autumn (2)	Spring (1)	Spring (2)	Summer (1)	Summer (2)
No. Wks	7 Weeks	8 Weeks	6 Weeks	6 Weeks	5 Weeks	6 Weeks
Overview Year 5	<ul style="list-style-type: none"> I know that people change as they get older I can describe the changes as humans develop to old age I can draw a timeline to show the stages and development of humans as they get older I can talk about some of the changes that occur during puberty 	<ul style="list-style-type: none"> I can explain that unsupported objects fall towards Earth because of the force of gravity acting between the Earth and the falling object I can describe the effects of air resistance I can describe the effects of water resistance I can describe the effects of friction I can identify where friction is used in the everyday world I can identify ways that friction can be increased or decreased I can recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect 	<ul style="list-style-type: none"> I understand what a mammal is I understand what an amphibian is I understand what a bird is I understand what an insect is I can describe how a lifecycle goes from birth to death I can describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird I understand what is meant by reproduction I can describe the life processes of reproduction in some plants and animals 	<ul style="list-style-type: none"> I can describe the movement of the Earth and other planets relative to the Sun in the solar system I can describe the movement of the Moon relative to the Earth I can describe the Sun, Earth and Moon as approximately spherical bodies I can use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky I can talk about gravity and its effect I know the names of the planets in the solar system I can name the planets in the solar system in order 	<ul style="list-style-type: none"> I can compare and group together everyday materials on the basis of their properties I can group materials based on their hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets I know that some materials will dissolve in liquid to form a solution Name and describe how to recover a substance from a solution I can use a filter to separate materials I can use evaporation to separate materials in a solution I can use knowledge of solids, liquids and gases to decide how mixtures might be separated and give reasons why materials are used for specific purposes I can demonstrate that dissolving, mixing and changes of state are reversible changes I can explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible 	<ul style="list-style-type: none"> I can answer questions about David Attenborough's life and work I can describe Margaret Hamilton's work on programming the on board computer for the Apollo 11 shuttle I can describe Leonardo da Vinci's life and his famous work I can carry out an inquiry to test the accuracy of Leonardo da Vinci's ideas about proportion I can order facts about Eva Crane's life and work
Visits/Visitors						

Long Term Overview KS2 Science

Unit Title	Animals Including Humans	Electricity	Living Things and their Habitats	Light	Evolution and Inheritance	Scientists in History
Term	Autumn (1)	Autumn (2)	Spring (1)	Spring (2)	Summer (1)	Summer (2)
No. Wks	7 Weeks	8 Weeks	6 Weeks	6 Weeks	5 Weeks	6 Weeks
Overview Year 6	<ul style="list-style-type: none"> I can identify and name the main parts of the human circulatory system I can label a diagram of the human circulatory system I can describe the functions of the heart, blood vessels and blood I can recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function I can describe the ways in which nutrients and water are transported within animals, including humans I can describe how drugs and lifestyle choices have an impact on the way our bodies function 	<ul style="list-style-type: none"> I can compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches I can use recognised symbols when representing a simple circuit in a diagram I can explain how the brightness of a lamp varies depending on the number of cells and the voltage of the circuit I can explain how the volume of a buzzer varies depending on the number of cells and the voltage of the circuit I can explain how switches work I can draw a circuit using the correct symbols I can create a circuit in which a bulb is made brighter by experimenting with the length of wires, number of cells etc 	<ul style="list-style-type: none"> Describe how living things are classified into groups according to their characteristics I can describe the similarities and difference between living things I can classify living things based on their specific characteristics I can give reasons for classifying plants and animals based on their special characteristics 	<ul style="list-style-type: none"> Recognise that light appears to travel in straight lines I can use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into our eyes I can draw diagrams showing how light travels so that objects can be seen I can explain that we see things because light travels from light sources to our eyes or from light sources to objects and then our eyes I can use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them 	<ul style="list-style-type: none"> I can recognise that living things have changed over time I can explain how living things have changed over time I can explain how fossils provide information about living things that inhabited the Earth millions of years ago I can recognise that living things produce off-spring of the same kind I can explain how off-spring vary and are not identical to their parents I can identify how animals and plants are adapted to suit their environment in different ways I can explain how animals adapt to their environment Discuss how adaptation may lead to evolution as the adaptations become permanent 	<ul style="list-style-type: none"> I can investigate the work of different scientists in history I can discuss the importance of the work of famous scientists I can describe how the work of famous scientists has impacted on our lives I can explain how the work of scientists in the past have found cures for diseases I can investigate the work of a famous scientist and present their work in a range of forms I can identify questions they would like to ask a famous scientist about their work
Visits/Visitors						



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