



Astley Park School

Nurturing Futures

Understanding of the World



At Astley Park School

Understanding of the World provides the opportunities to investigate scientific concepts through everyday experiences that learners encounter to more abstract concepts occurring in the wider environment. Learning opportunities presented encourage learners to predict, enquire, experiment and evaluate through exciting themes. Learners develop an awareness of places and people round the world.

Voyagers

Area of Need:	Subject Coverage	Specialist Programmes, Tools or Interventions	
Cognition and Learning Communication and Interaction Physical and Sensory Self-help and independence Social, Emotional & Mental Health	Science Geography History Religious Education Modern Foreign Language Computing (ICT)	EQUALS Science Schemes of Work Formal EQUALS RE Schemes of Work Formal	
Understanding of the World Key Aspects			
How the World Works	People Around the World	Places Around the World	History of the World
Enquiry and growing scientific understanding of: -Living Things -Animals and humans -Plants -Properties and changes of materials -Environment and Recycling -Our Planet -Water and the Elements --Earth and Space -Light -Sound -Forces -Electricity -Chemicals Skills: investigation, enquiry, observation, prediction, planning and evaluation,	-Knowledge and understanding of cultures and their traditions around the world including language, food and drink, homes, dress, currency -Knowledge and understanding of religions and their teachings around the world -Experience of a range of Modern Foreign Languages including key vocabulary, phrases, conversational skills and writing. -Awareness of people in the local community and the jobs they do -Awareness of diversity in the local community -Awareness of groups, activities and events that they could be part of in their local community	-Local community -Travel in the local community -Use of maps -Use of travel timetables -Use of geographical vocabulary -Awareness and basic geographical knowledge of the UK, cities, countries, continents and oceans around the world -Recognition of key landmarks -Holidays and travel in the UK and abroad including experience of the airport. -Seasons and weather patterns -Comparison of contrasting places -Simple fieldwork and observational skills -Use of maps, atlases and globes -Understanding and use of directional and locational language	-Awareness of the passing of time -Use of common words and phrases related to the passing of time -Experience of different ways of life in different periods of time -Compare different ways of life in different periods of time -Key people and events in time -Understanding and use of everyday historical terms -Ask and answer questions about key historical events -Use different sources to find historical information -Knowledge and understanding of a wide range of significant people, events and periods of time.

testing, comparing, gathering and recording data, use of scientific evidence.		-Describe and understand aspects of physical and human geography	
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P Scales – National Curriculum Coverage Grid

Coverage Colour Code:

Autumn Spring Summer

	Science		Geography
p8	<p>P8 Pupils show that they have observed patterns or regular changes in features of objects, living things and events [for example, chrysalis/butterfly day/night]</p> <ul style="list-style-type: none"> • They make some contribution to planning and evaluation and to recording their findings • They identify a range of common materials and know about some of their properties 	p8	<p>P8 Pupils recognise the physical/natural and human / made features of places [for example, identifying buildings and their uses]</p> <ul style="list-style-type: none"> • They use simple geographical language to communicate their ideas about various locations, functions and roles • They use resources given to them and their own observations to respond to simple questions about places and people • They recognise simple symbols or representations on maps and plans • They show some understanding of environmental awareness and how it relates to their own lives and they express their views on features of the environment which they find attractive or unattractive.
Year 1	<p>During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> -asking simple questions and recognising that they can be answered in different ways -observing closely, using simple equipment -performing simple tests -identifying and classifying -using their observations and ideas to suggest answers to questions -gathering and recording data to help in answering questions. <p>Plants Pupils should be taught to:</p>	KS1	<p>Pupils should be taught to:</p> <p>Locational knowledge</p> <ul style="list-style-type: none"> -name and locate the world’s seven continents and five oceans -name, locate and identify characteristics of the four countries and capital cities of the United Kingdom and its surrounding seas <p>Place knowledge</p> <ul style="list-style-type: none"> -understand geographical similarities and differences through studying the human and physical geography of a small area of the United Kingdom, and of a small area in a contrasting non-European country <p>Human and physical geography</p>

	<p>-identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</p> <p>-identify and describe the basic structure of a variety of common flowering plants, including trees.</p> <p>Animals including Humans</p> <p>Pupils should be taught to:</p> <p>-identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals</p> <p>-identify and name a variety of common animals that are carnivores, herbivores and omnivores</p> <p>-describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)</p> <p>-identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</p> <p>Everyday Materials</p> <p>Pupils should be taught to:</p> <p>-distinguish between an object and the material from which it is made</p> <p>-identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</p> <p>-describe the simple physical properties of a variety of everyday materials</p> <p>-compare and group together a variety of everyday materials on the basis of their simple physical properties.</p> <p>Seasonal Changes</p> <p>Pupils should be taught to:</p> <p>-observe changes across the four seasons</p> <p>-observe and describe weather associated with the seasons and how day length varies.</p>		<p>-identify seasonal and daily weather patterns in the United Kingdom and the location of hot and cold areas of the world in relation to the Equator and the North and South Poles</p> <p>-use basic geographical vocabulary to refer to:</p> <p>-key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather</p> <p>-key human features, including: city, town, village, factory, farm, house, office, port, harbour and shop</p> <p>Geographical skills and fieldwork</p> <p>-use world maps, atlases and globes to identify the United Kingdom and its countries, as well as the countries, continents and oceans studied</p> <p>-use simple compass directions (North, South, East and West) and locational and directional language [for example, near and far; left and right], to describe the location of features and routes on a map</p> <p>-use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features; devise a simple map; and use and construct basic symbols in a key</p> <p>-use simple fieldwork and observational skills to study the geography of their school and its grounds and the key human and physical features of its surrounding environment.</p>
Year 2	<p>Living Things and Their Habitats</p> <p>Pupils should be taught to:</p> <p>-explore and compare the differences between things that are living, dead, and things that have never been alive</p> <p>-identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other</p> <p>-identify and name a variety of plants and animals in their habitats, including microhabitats</p> <p>-describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.</p>	KS2	<p>Pupils should be taught to:</p> <p>Locational knowledge</p> <p>-locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities</p> <p>-name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time</p> <p>- identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic</p>

	<p>Plants Pupils should be taught to: -observe and describe how seeds and bulbs grow into mature plants -find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p> <p>Animals including Humans Pupils should be taught to: -notice that animals, including humans, have offspring which grow into adults -find out about and describe the basic needs of animals, including humans, for survival (water, food and air) -describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</p> <p>Use of Everyday Materials Pupils should be taught to: -identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses -find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>		<p>and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night)</p> <p>Place knowledge -understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region within North or South America Human and physical geography -describe and understand key aspects of: - physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle -human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water</p> <p>Geographical skills and fieldwork -use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied -use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world -use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.</p>
Year 3	<p>During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: -asking relevant questions and using different types of scientific enquiries to answer them -setting up simple practical enquiries, comparative and fair tests ♣ making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers -gathering, recording, classifying and presenting data in a variety of ways to help in answering questions -recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables -reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions -using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions -identifying differences, similarities or changes related to simple scientific ideas and processes -using straightforward scientific evidence to answer questions or to support their findings.</p> <p>Plants</p>		

	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> -identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers -explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant -investigate the way in which water is transported within plants -explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. <p>Animals including Humans</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> -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 -identify that humans and some other animals have skeletons and muscles for support, protection and movement. <p>Light</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> -recognise that they need light in order to see things and that dark is the absence of light -notice that light is reflected from surfaces -recognise that light from the sun can be dangerous and that there are ways to protect their eyes -recognise that shadows are formed when the light from a light source is blocked by an opaque object -find patterns in the way that the size of shadows change. <p>Forces and Magnets</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> -compare how things move on different surfaces -notice that some forces need contact between two objects, but magnetic forces can act at a distance -observe how magnets attract or repel each other and attract some materials and not others -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 -describe magnets as having two poles -predict whether two magnets will attract or repel each other, depending on which poles are facing. 		
Year 4	<p>Living things and their habitats</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> -recognise that living things can be grouped in a variety of ways 		

-explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
-recognise that environments can change and that this can sometimes pose dangers to living things.

Animals including Humans
Pupils should be taught to:
-describe the simple functions of the basic parts of the digestive system in humans
-identify the different types of teeth in humans and their simple functions
-construct and interpret a variety of food chains, identifying producers, predators and prey.

States of Matter
Pupils should be taught to:
-compare and group materials together, according to whether they are solids, liquids or gases
-observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius ($^{\circ}\text{C}$)
-identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

Sounds
Pupils should be taught to:
-identify how sounds are made, associating some of them with something vibrating
-recognise that vibrations from sounds travel through a medium to the ear
-find patterns between the pitch of a sound and features of the object that produced it
-find patterns between the volume of a sound and the strength of the vibrations that produced it
-recognise that sounds get fainter as the distance from the sound source increases.

Electricity
Pupils should be taught to:
-identify common appliances that run on electricity
-construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
-identify 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
-recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit

	<p>-recognise some common conductors and insulators, and associate metals with being good conductors.</p>		
<p>Year 5</p>	<p>During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> -planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary -taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate -recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs - using test results to make predictions to set up further comparative and fair tests -reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations -identifying scientific evidence that has been used to support or refute ideas or arguments. <p>Living things and their habitats Pupils should be taught to:</p> <ul style="list-style-type: none"> -describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird -describe the life process of reproduction in some plants and animals. <p>Animals including Humans Pupils should be taught to:</p> <ul style="list-style-type: none"> -describe the changes as humans develop to old age. <p>Properties and changes of materials Pupils should be taught to:</p> <ul style="list-style-type: none"> -compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets -know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution -use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating -give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic -demonstrate that dissolving, mixing and changes of state are reversible changes 		

	<p>-explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.</p> <p>Earth and Space Pupils should be taught to: -describe the movement of the Earth, and other planets, relative to the Sun in the solar system -describe the movement of the Moon relative to the Earth -describe the Sun, Earth and Moon as approximately spherical bodies -use the idea of the Earth’s rotation to explain day and night and the apparent movement of the sun across the sky.</p> <p>Forces Pupils should be taught to: -explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object -identify the effects of air resistance, water resistance and friction, that act between moving surfaces -recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</p>		
Year 6	<p>Living things and their habitats Pupils should be taught to: -describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals -give reasons for classifying plants and animals based on specific characteristics.</p> <p>Animals including humans Pupils should be taught to: -identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood -recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function -describe the ways in which nutrients and water are transported within animals, including humans.</p> <p>Evolution and inheritance Pupils should be taught to: -recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago -recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</p>		

-identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Light

Pupils should be taught to:

- recognise that light appears to travel in straight lines
- use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye
- explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes
- use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.

Electricity

Pupils should be taught to:

- associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
- 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 use recognised symbols when representing a simple circuit in a diagram.