

Anston Greenlands Long Term Plan 2022-2024

In some subjects – particularly **science**, **history** and **geography** – the National Curriculum objectives tend to describe the very specific knowledge that we want children to develop (e.g. an understanding of the Romans). These objectives form the basis of our projects. The distribution of objectives in these subjects has been shown below, to help you get an understanding of how your child’s learning builds up over the years.

Other subjects, like **art**, **computing**, **DT** and **music**, are made up of broader National Curriculum objectives that are designed to be visited regularly. In these subjects, we return to objectives often, as children continually develop their skills. You can find the objectives covered in each year group at the bottom of each section.

Our learning in RE follows the Rotherham Agreed Syllabus.

For more information about planning in all of our subjects, please take a look at our progression plans. These are the next step in our planning process – they add further depth to the objectives in this document, and are the way we ensure that children are always building on their learning.

CYCLE YEAR 1			
Y1/Y2	<p>Science: <i>Animals, Including Humans</i> Y1 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><i>Animals, Including Humans</i> Y2 – Notice that animals, including humans have offspring with grown into adults; Y2 – Find out about and describe the basic need of animals, including humans, for survival (water, food and air)</p> <p><i>Plants</i> Y1 - Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. Y1 - Identify and describe the basic structure of a variety of common flowering plants, including trees.</p> <p><i>Plants</i> Y2 - Observe and describe how seeds and bulbs grow into mature plants. Y2 - Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p>	<p>History: Significant historical events, people and places in their own locality.</p> <p>Science: <i>Everyday Materials</i> Y1 - Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock. Y1 - Distinguish between an object and the material from which it is made. Y1 - Describe the simple physical properties of a variety of everyday materials. Y1 – compare and group together a variety of everyday materials on the basis of their simple physical properties.</p> <p><i>Uses of everyday materials</i> Y2 - Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. Y2 – identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</p> <p><i>Seasonal Changes</i> Y1 - Observe changes across the four seasons; Y1 - Observe and describe weather associated with the seasons and how day length varies.</p>	<p>Geography: Name, locate and identify characteristics of the four countries and capital cities of the United Kingdom and its surrounding seas. Name and locate the world’s seven continents and five oceans. Use world maps, atlases and globes to identify the United Kingdom and its countries, as well as the countries, continents and oceans studies at this key stage. Use basic geographical vocabulary to refer to: Key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather. 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> <p>Science: <i>Animals, Including Humans</i> Y1 - Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals; Y1 - Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets). <i>Animals, Including Humans</i> Identify and name a variety of common animals that are carnivores, herbivores and omnivores;</p> <p><i>Animals, Including Humans</i></p>

Y2 - Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene;

Living things and their habitats

Y2 - Explore and compare the differences between things that are living, dead, and things that have never been alive

Y2 - 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

Y2 - 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.

Y2 - Identify and name a variety of plants and animals in their habitats, including micro-habitats

Key art, computing, DT and music objectives covered regularly during this period (in addition to revisiting and strengthening understanding of previous objectives):

Art:

To develop a range of art and design techniques in using colour, pattern, texture, line, shape, form and space.

To use a range of materials creatively to design and make products.

Computing:

Recognise common uses of information technology beyond school.

Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.

Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Music:

Use their voices expressively and creatively by singing songs and speaking chants and rhymes.

Experiment with, create, select and combine sounds using the inter-related dimensions of music.

Play tuned and untuned instruments musically.

DT:

Explore and evaluate a range of existing products.

Explore and use mechanisms (for example, levers, sliders, wheels and axles), in their products.

Evaluate their ideas and products against design criteria.

Design purposeful, functional, appealing products for themselves and other users based on design criteria.

Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing).

Use the basic principles of a healthy and varied diet to prepare dishes.

<p>Y3/4</p>	<p>History: Changes in Britain from the Stone Age to the Iron Age</p> <p>Science: Y3: <i>Rocks</i></p> <ul style="list-style-type: none"> • Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties; • Describe in simple terms how fossils are formed when things that have lived are trapped within rock; • Recognise that soils are made from rocks and organic matter. <p>Y4: <i>States of Matter</i></p> <ul style="list-style-type: none"> ▪ 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 (°C) ▪ identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. 	<p>Science: Y3: <i>Forces and Magnets</i></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. <p><i>Light</i></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 your 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 changes. <p>Y4: <i>Electricity</i></p> <ul style="list-style-type: none"> • 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 	<p>Geography: Physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle.</p> <p>Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.</p> <p>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.</p> <p>History: A non-European society that provides contrast with British history – one study chosen from: early Islamic civilization, including a study of Baghdad c. AD 900; Mayan civilization c. AD900; Benin (West Africa) c. AD 900-1300.</p> <p>Science:</p> <p>Y3: <i>Animals, including Humans</i></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>Y3: <i>Plants</i></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>Y4: <i>Animals, including Humans</i></p>
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and associate this with whether or not a lamp lights in a simple series circuit.

- recognise some common conductors and insulators, and associate metals with being good conductors.

Sound

- Identify how sounds are made, associating some of them with something vibrating;
- Recognise that vibrations from sounds travel through a medium to the ear;
- Recognise that sounds get fainter as the distance from the sound source increases.
- 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

- 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.

Living things and their habitats

- 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.

Key art, computing, DT and music objectives covered regularly during this period (in addition to revisiting and strengthening understanding of previous objectives):

Art:

To improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials (for example, pencil, charcoal, paint, clay).
To create sketch books to record their observations and use them to review and revisit ideas.

Computing:

Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.
Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.

DT:

Understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages).
Understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors)- Y4
Apply their understanding of computing to program, monitor and control their products.
Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.
Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.
Use research and develop design criteria to inform the design of innovative, functional. Appealing products that are fit for purpose, aimed at particular individuals or groups.
Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.

Music:

Play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression.
Listen with attention to detail and recall sounds with increasing aural memory.

<p>Y5/6</p>	<p>Geography: Name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including coasts), and land-use patterns; and understand how some of these aspects have changed over time.</p> <p>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.</p> <p>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> <p>Science: Y5: <i>Living Things and their Habitats</i></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>Y5 <i>Animals, including Humans</i></p> <ul style="list-style-type: none"> Describe the changes as humans develop to old age; <p>Y6: <i>Living Things and Their Habitats</i></p> <ul style="list-style-type: none"> Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals; Give reasons for classifying plants and animals based on specific characteristics. <p><i>Evolution and Inheritance</i></p> <ul style="list-style-type: none"> Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents; 	<p>Geography: 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>Science: Y5 <i>Properties and Changes of Materials</i></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; Give reasons, based on evidence from comparative and fair tests, for the particular use of everyday materials, including metals, wood and plastic; 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; Demonstrate that dissolving, mixing and changes of state are reversible changes; 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>Y5 <i>Forces</i></p> <ul style="list-style-type: none"> 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>Y6</p>	<p>History: Britain's settlement by Anglo-Saxons and Scots The Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor</p> <p>Science: Y5 <i>Earth and Space</i></p> <ul style="list-style-type: none"> 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>Y6 <i>Light</i></p> <ul style="list-style-type: none"> 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.
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- Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago;
- Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution;

Animals, including Humans

- 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.

Y6

Electricity

- 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.

Key art, computing, DT and music objectives covered regularly during this period (in addition to revisiting and strengthening understanding of previous objectives):

Art:

About great artists, architects and designers in history.

Computing:

Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variable and various forms of input and output. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

DT:

Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately.

Music:

Appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians.

CYCLE YEAR 2

Y1/Y2

History:

Events beyond living memory that are significant nationally or globally (for example, the Great Fire of London, the first aeroplane flight or events commemorated through festivals or anniversaries).

History:

The lives of significant individuals in the past who have contributed to national and international achievements. Some should be used to compare aspects of life in different periods.

History:

Changes within living memory. Where appropriate, these should be used to reveal aspects of change in national life.

Geography:

Geography:

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.

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.

Science:

Seasonal Changes

Y1 - Observe changes across the four seasons;

Y1 - Observe and describe weather associated with the seasons and how day length varies.

Everyday Materials

Y1 - Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock.

Y1 - Distinguish between an object and the material from which it is made.

Y1 - Describe the simple physical properties of a variety of everyday materials.

Y1 – compare and group together a variety of everyday materials on the basis of their simple physical properties.

Uses of everyday materials

Y2 - Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

Y2 – identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.

Science:

Animals, Including Humans

Y1 - Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals;

Y1 - Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets).

Y1 - Identify and name a variety of common animals that are carnivores, herbivores and omnivores;

Y1 - Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.

Animals, Including Humans

Y2 - Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene;

Y2 – Notice that animals, including humans have offspring with grown into adults;

Y2 – Find out about and describe the basic need of animals, including humans, for survival (water, food and air)

Living things and their habitats

Y2 - Explore and compare the differences between things that are living, dead, and things that have never been alive

Y2 - 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

Y2 - 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.

Y2 - Identify and name a variety of plants and animals in their habitats, including micro-habitats

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.

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.

Use basic geographical vocabulary to refer to:

- key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather
- key human features, including: city, town, village, factory, farm, house, office, port, harbour and shop

Science:

Plants

Y1 - Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.

Y1 - Identify and describe the basic structure of a variety of common flowering plants, including trees.

Plants

Y2 - Observe and describe how seeds and bulbs grow into mature plants.

Y2 - Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.

Key art, computing, DT and music objectives covered regularly during this period (in addition to revisiting and strengthening understanding of previous objectives):

Art:

To use drawing, painting and sculpture to develop and share their ideas, experiences and imagination.

To learn about the work of a range of artists and designers, describing the differences and similarities between different practices and disciplines, making links to their own work.

Computing:

Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

Create and debug simple programs.
Use logical reasoning to predict the behaviour of simple programs.

DT:

To use a range of materials to creatively design and make products.

Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.

Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

Evaluate their ideas and products against design criteria.

Build structures, exploring how they can be made stronger, stiffer and more stable.

Understand where food comes from.

Music:

Listen with concentration and understanding to a range of high-quality live and recorded music.

Y3/4

History:

Ancient Greece – a study of Greek life and achievements and their influence on the western world.

Science:

Y3: *Rocks*

- Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties;
- Describe in simple terms how fossils are formed when things that have lived are trapped within rock;
- Recognise that soils are made from rocks and organic matter.

Y4: *States of Matter*

- 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 (°C)
- identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

Science:

Y3: *Forces and Magnets*

- 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.

Light

- 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 your 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 changes.

Y4: *Electricity*

History:

The Roman Empire and its impact on Britain

Science:

Y3: *Animals, including Humans*

- 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.

Y3: *Plants*

- 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.

Y4: *Animals, including Humans*

- Describe the simple functions of the basic parts

- 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.
- recognise some common conductors and insulators, and associate metals with being good conductors.

Sound

- Identify how sounds are made, associating some of them with something vibrating;
- Recognise that vibrations from sounds travel through a medium to the ear;
- Recognise that sounds get fainter as the distance from the sound source increases.
- 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.

- 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.

Living things and their habitats

- 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.

Key art, computing, DT and music objectives covered regularly during this period (in addition to revisiting and strengthening understanding of previous objectives):

Art:

To improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials (for example, pencil, charcoal, paint, clay).
To create sketch books to record their observations and use them to review and revisit ideas.

Computing:

Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.
Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.

DT:

	<p>Investigate and analyse a range of existing products. Understand how key events and individuals in design and technology have helped shape the world.</p> <p>Music: Play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression. Listen with attention to detail and recall sounds with increasing aural memory.</p>		
Y5/6	<p>History: A study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066.</p> <p>A local history study.</p> <p>Geography: 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>Science: Y5 <i>Properties and Changes of Materials</i></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; Give reasons, based on evidence from comparative and fair tests, for the particular use of everyday materials, including metals, wood and plastic; 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; Demonstrate that dissolving, mixing and changes of state are reversible changes; 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>Science: Y5 <i>Animals, including Humans</i></p> <ul style="list-style-type: none"> Describe the changes as humans develop to old age; <p>Y5 <i>Earth and Space</i></p> <ul style="list-style-type: none"> 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>Y6 <i>Light</i></p> <ul style="list-style-type: none"> 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. <p>Y6 <i>Animals, including Humans</i></p> <ul style="list-style-type: none"> 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 	<p>History: Achievements of the earliest civilizations – an overview of where and when the first civilizations appeared and a depth study of Ancient Egypt</p> <p>Geography: Name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including 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 and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night).</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 rivers), and land-use patterns; and understand how some of these aspects have changed over time.</p> <p>Science Y5 <i>Forces</i></p> <ul style="list-style-type: none"> 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;

Y6

Electricity

- 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.

humans.

Y5:

Living Things and their Habitats

- 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.

Y6:

Living Things and Their Habitats

- Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals;
- Give reasons for classifying plants and animals based on specific characteristics.

Evolution and Inheritance

- Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents;
- Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago;
- Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Key art, computing, DT and music objectives covered regularly during this period (in addition to revisiting and strengthening understanding of previous objectives):

Art:

About great artists, architects and designers in history.

Computing:

Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

DT:

Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques;
Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.
Understand and apply the principles of a healthy and varied diet.
Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
Understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages).

Music:

Use and understand staff and other musical notations.

Develop an understanding of the history of music.

Improvise and compose music for a range of purposes using the inter-related dimensions of music.