

**Learning Challenge Curriculum:**

**Key Knowledge and Skills**

**2019-20**

**This document outlines the key knowledge and skills taught in each year group, within each subject and within each of the topics in the UPS curriculum. Following the amalgamation of Urmston Infant and Junior Schools, it is founded initially on the *Focus Curriculum*, but has evolved since then and continues to grow into a more personalised approach. The next step will be to develop and clarify cross-curricular links - especially in literacy and maths - and develop into a more explicit thematic curriculum, based on historical and geographical trends, the values of our school, the community, wider society and the world.**

*N.B:*

 *- Many of the skills in each year group topic will be repeated. This is intentional so that these skills are embedded within varying contexts.*

*- The topical geographical, historical and scientific knowledge included here is not an exhaustive list and will be added to based upon the vocabulary acquired, the children’s desires and enquiry, and how the topic learning develops (see subject/year group vocab lists)*

*- The different types of scientific enquiry are shared in pupils’ books*

*- Each year group in KS2 will teach an additional Mapping Skills topic to consolidate understanding in this key geographical area of learning.*

*- No. of weeks may not add up to 39 as some topics will be taught concurrently or overlap*

*Subject Key:* ***GEOGRAPHY*** ***HISTORY******SCIENCE***

**KS1 (Cycle 1)**

**Topic: All About Me (Autumn 1)**

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| **Subject/Area of Learning** | **Skills and Knowledge** |
| Historical Communication | I use common words and phrases relating to passing of time. |
| I can recount stories accurately and explain why some people and events were important. |
| I can tell you about a time before I was born. |
| I can recount stories accurately and explain why some people and events were important. |
| I can tell you about a time before I was born and can compare aspects of life in different periods linked to significant people or people I know in different ways using every day historical terms.  |
| Use of basic geographical vocabulary | I can use mathematical vocabulary to describe position and location |
| Map work skills | I can follow a route on prepared maps (left/right) & find information. |
| I can make a simple map (e.g. from a story).  |
| I can use & construct basic symbols in a key. |
| I can use locational and directional language (e.g. near and far; left and right) to describe the location of features and routes on a map. |
| Human and physical geography: enquiry skills and communication | I begin to explain how/why I can find information from aerial photographs.  |
| Scientific Enquiry and applying knowledge in context | I can explore the world around me and raise my own simple questions. I can share my ideas with others. |
| I can experience different types of science enquiries, including practical activities. |
| I can begin to recognise different ways in which to answer scientific questions. |
| I can carry out simple tests using some basic equipment. |
| I can use simple features to compare objects, minerals, materials and living things. With help, I can decide how to sort and group them. |
| I can ask people questions and use simple secondary resources, select my own, reliable secondary sources. |
| I can observe closely using simple equipment to help. I can observe changes over time. |
| I can with guidance, begin to notice patterns and relationships. |
| I can use simple measurements and equipment (e.g. hand lenses, egg timers) to gather data. |
| I can record simple data using at least two different methods. |
| I can use my observations and ideas to suggest answers to questions. I can talk about what I found out and how I found it out and offer my own opinions. |
| I can with help, record and communicate my findings in a range of ways and begin to use scientific language. |
| Topic Knowledge and vocabulary (Geography and History) | I can tell you how UPS has changed and how Urmston has changed. I can talk about the differences and similarities. |
| Topic Knowledge and vocabulary (Science) | **Humans (Y1)****Key vocabulary**Parts of the body including those linked to PSHE teachingSenses, touch, see, smell, taste, hear, fingers (skin), eyes, nose, ear and tongue**Knowledge**I can label parts of the body on pictures and diagrams.I can explore objects using different senses.**Animals including Humans (Y2)****Key vocabulary**Offspring, reproduction, growth, child, young/old stages (examples - chick/hen, baby/child/adult, caterpillar/butterfly), exercise, heartbeat, breathing, hygiene, germs, disease, food types (examples – meat, fish, vegetables, bread, rice, pasta)**Knowledge**I can describe how animals including humans have offspring which grow into adults, using the appropriate names for the stages.I can state the basic needs of animals, including humans, for survival.I can state the importance for humans of exercise, eating the right amounts of different types of food and hygiene.I can name foods in each section of the Eat well guide. |
| **Key Science NC Objectives** | **Y1 Humans – see previous sheet for animal statements**1. identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense

**Y2 Animals including humans**1. notice that animals, including humans, have offspring which grow into adults
2. find out about and describe the basic needs of animals, including humans, for survival (water, food and air)
3. describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene
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**Topic: Dark and Light ( Autumn 2)**

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| **Subject/Area of Learning** | **Skills and Knowledge** |
| Historical Concepts | I can recall some simple facts. |
| I can give one cause of an event. |
| I can put 2 events or objects in order and compare them. |
| I can tell you about some of the people or events from my work. |
| Historical Enquiry | I can use parts of stories to show I know and understand key features of events or people’s lives which I have studied. |
| I can choose and use parts of stories and other sources of information to show I know and understand key features of events or people’s lives which I have studied. |
| Historical Interpretation | I am developing the skills of presenting an idea and raising questions about the past. |
| I am able to reflect on the significance of what I have learnt about the past.  |
| Human and physical geography: enquiry skills and communication | I can use observational skills and ask and respond to questions. |
| Locational knowledge and Place knowledge | I can name & locate world’s 7 continents and 5 oceans. |
| I understand geog. similarities and differences through studying the human & physical geography of a small area of the UK & contrasting non-European country. |
| Scientific Enquiry and applying knowledge in context | I can explore the world around me and raise my own simple questions. I can share my ideas with others. |
| I can experience different types of science enquiries, including practical activities. |
| I can begin to recognise different ways in which to answer scientific questions. |
| I can carry out simple tests using some basic equipment. |
| I can use simple features to compare objects, minerals, materials and living things. With help, I can decide how to sort and group them. |
| I can ask people questions and use simple secondary resources, select my own, reliable secondary sources. |
| I can observe closely using simple equipment to help. I can observe changes over time. |
| I can with guidance, begin to notice patterns and relationships. |
| I can use simple measurements and equipment (e.g. hand lenses, egg timers) to gather data. |
| I can record simple data using at least two different methods. |
| I can use my observations and ideas to suggest answers to questions. I can talk about what I found out and how I found it out and offer my own opinions. |
| I can with help, record and communicate my findings in a range of ways and begin to use scientific language. |
| Topic Knowledge and vocabulary (History and Geography) | I can describe who Guy Fawkes was and why we have bonfire night. |
| I can tell you about remembrance day and what it means. |
| I can tell you all about the northern lights. |
| Topic Knowledge and vocabulary (Science/Geography) | **Seasonal Change (Y1)****Key vocabulary**Weather (sunny, rainy, windy, snowy etc.), seasons (Winter, Summer, Spring, Autumn), sun, sunrise, sunset, day length.**Knowledge**I can name the four seasons and identify when in the year they occur.I can describe weather in different seasons over a year.I can describe days as being longer (in time) in the summer and shorter in the winter.I can describe other features that change through the year |
| **Key Science NC Objectives** | **Y1 Seasonal Change**1. observe changes across the four seasons
2. observe and describe weather associated with the seasons and how day length varies
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**Topic: Animals Around The World ( Spring 1/2)**

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| **Subject/Area of Learning** | **Skills and Knowledge** |
| Locational knowledge and Place knowledge | I can name, locate &identify characteristics of the 4 countries & capital cities of the UK & surrounding seas. |
| I understand similarities and differences of a small area of the UK & contrasting non-European country. |
| I can name & locate world’s 7 continents and 5 oceans. |
| I understand geog. similarities and differences through studying the human & physical geography of a small area of the UK & contrasting non-European country. |
| Fieldwork | I can recognise and record different types of land use, buildings and environments. |
| Use of basic geographical vocabulary | I use and understand basic geographical specific vocabulary relating to human and physical geography.  |
| I can use specific key vocabulary to describe physical features (beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season, weather) and key human features (city, town, village, factory, farm, house, office, port, harbour, shop, address). |
| Using globes, maps & plans. | I can use world maps, atlases and globes to identify UK & its countries. |
| I can identify the location of hot and cold areas of the world in relation to the Equator and the North and South Poles. |
| I can identify the countries, continents and oceans studied. |
| I can use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features. |
| Map work skills | I can use simple compass directions (NSEW). |
| Scientific Enquiry and applying knowledge in context | I can explore the world around me and raise my own simple questions. I can share my ideas with others. |
| I can experience different types of science enquiries, including practical activities. |
| I can begin to recognise different ways in which to answer scientific questions. |
| I can carry out simple tests using some basic equipment. |
| I can use simple features to compare objects, minerals, materials and living things. With help, I can decide how to sort and group them. |
| I can ask people questions and use simple secondary resources, select my own, reliable secondary sources. |
| I can observe closely using simple equipment to help. I can observe changes over time. |
| I can with guidance, begin to notice patterns and relationships. |
| I can use simple measurements and equipment (e.g. hand lenses, egg timers) to gather data. |
| I can record simple data using at least two different methods. |
| I can use my observations and ideas to suggest answers to questions. I can talk about what I found out and how I found it out and offer my own opinions. |
| I can with help, record and communicate my findings in a range of ways and begin to use scientific language. |
| Topic Knowledge and vocabulary (History and Geography) | I can tell you how animals have helped us humans throughout history – where and when. |
| I know where different animals live. |
| I can describe some polar animals and how they live differently to animals in the UK. |
| I know about some animals in Africa and how they are similar and different to animals in the UK and the poles. |
| Topic Knowledge and vocabulary (Science) | **Animals (Y1)****Key vocabulary**Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves; names of animals experienced first-hand from each vertebrate group (the children need to be able to name and identify a range of animals in each group e.g. name specific birds and fish. They do not need to use the terms mammal, reptiles etc. or know the key characteristics of each, although they will probably be able to identify birds and fish, based on their characteristics).(The children also do not need to use the words carnivore, herbivore and omnivore. If they do, ensure that they understand that carnivores eat other animals not just meat.)**Knowledge**I can name a range of animals which includes animals from each of the vertebrate groupsI can describe the key features of these named animalsI can label key features on a picture/diagramI can write descriptively about an animalI can describe what a range of animals eat**Animals including Humans (Y2)****Key vocabulary**Offspring, reproduction, growth, child, young/old stages (examples - chick/hen, baby/child/adult, caterpillar/butterfly), exercise, heartbeat, breathing, hygiene, germs, disease, food types (examples – meat, fish, vegetables, bread, rice, pasta)**Knowledge**I can describe how animals including humans have offspring which grow into adults, using the appropriate names for the stages.I can state the basic needs of animals, including humans, for survival.I can state the importance for humans of exercise, eating the right amounts of different types of food and hygiene.I can name foods in each section of the Eatwell guide |
| **Key Science NC Objectives** | **Y1 Animals**1. identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals
2. identify and name a variety of common animals that are carnivores, herbivores and omnivores
3. describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)

**Y2 Living things and their habitat**1. explore and compare the differences between things that are living, dead, and things that have never been alive
2. 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
3. identify and name a variety of plants and animals in their habitats, including micro-habitats
4. 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 Animals including humans**1. notice that animals, including humans, have offspring which grow into adults
2. 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 |

**Topic: Castles, Kings and Queens ( Summer 1)**

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| **Subject/Area of Learning** | **Skills and Knowledge** |
| Locational knowledge and Place knowledge | I can name, locate &identify characteristics of the 4 countries & capital cities of the UK & surrounding seas. |
| Historical Chronology | I know the difference between long ago and now. |
| I can compare modern and old objects; put 2 objects or events in order. |
| I know my life is different from the lives of people in the past. |
| I know where the people and events I have studied fit on a basic timeline. |
| I can tell you similarities and differences between ways of life at different times. |
| I can name a few people in the past who have contributed to national and international achievements. |
| I can put a few objects/events in order. |
| Historical Concepts | I can give you more than one cause of an event and give my reason why people in the past acted as they did. |
| Historical Interpretation | I know some of the ways in which we find out about the past. |
| I can tell you a few ways how the past has been described. |
| I understand some of the ways in which we find out about the past. |
| I can tell you a few ways how the past has been presented or described. |
| Historical Enquiry | I might be able to investigate questions to find answers. |
| I can ask questions about artefacts. |
| Fieldwork | I can recognise and record different types of land use, buildings and environments. |
| Using globes, maps & plans. | I can use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features. |
| Topic Knowledge and vocabulary | I can tell you all about Henry VIII – when and where he lived and some of the people who lived in his times. |
| I can tell you all about castles and how they have changed – I can talk about the people who lived castles in the past and how it is different to people in castles now. |
| I know where some castles are across the UK. |
| I can tell you about some cities and seas across the UK. |
| I can tell you about how castles are made and the materials that are used. |

**Topic: In The Garden ( Spring 2/Summer 2)**

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| **Subject/Area of Learning** | **Skills and Knowledge** |
| Fieldwork | I can use simple fieldwork and observational skills to study the geography of my school and its grounds. |
| I can complete a chart to express opinions during Fieldwork. |
| I use first hand observation to investigate places – the school grounds, the streets around and the local area. |
| Human and physical geography: enquiry skills and communication | I can identify seasonal/ daily UK weather patterns. |
| I am beginning to study the key human and physical features of the surrounding environment of my school. |
| Scientific Enquiry and applying knowledge in context | I can explore the world around me and raise my own simple questions. I can share my ideas with others. |
| I can experience different types of science enquiries, including practical activities. |
| I can begin to recognise different ways in which to answer scientific questions. |
| I can carry out simple tests using some basic equipment. |
| I can use simple features to compare objects, minerals, materials and living things. With help, I can decide how to sort and group them. |
| I can ask people questions and use simple secondary resources, select my own, reliable secondary sources. |
| I can observe closely using simple equipment to help. I can observe changes over time. |
| I can with guidance, begin to notice patterns and relationships. |
| I can use simple measurements and equipment (e.g. hand lenses, egg timers) to gather data. |
| I can record simple data using at least two different methods. |
| I can use my observations and ideas to suggest answers to questions. I can talk about what I found out and how I found it out and offer my own opinions. |
| I can with help, record and communicate my findings in a range of ways and begin to use scientific language. |
| Topic Knowledge and vocabulary (Geography) | I can tell you about some gardens across the UK. |
| I can talk about the different habitats in the UK. |
| Topic Knowledge and vocabulary (Science) | **Plants (Y1)****Key vocabulary**Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud; names of trees in the local area; names of garden and wild flowering plants in the local area.**Knowledge**I can name trees and other plants that they see regularly.I can describe some of the key features of these trees and plants e.g. the shape of the leaves, the colour of the flower/blossom.I can point out trees which lost their leaves and those that kept them the whole year.I can point to and name the parts of a plant, recognising that they are not always the same e.g. leaves and stems may not be green.**Plants (Y2)****Key vocabulary**As for year 1 plus - light, shade, sun, warm, cool, water, grow, healthy**Knowledge** I can describe how plants that they have grown from seeds and bulbs have developed over timeI can identify plants that grew well in different conditions.**Living Things and their habitats (Y2)****Key vocabulary**Living, dead, never been alive, suited, suitable, basic needs, food, food chain, shelter, move, feed, names of local habitats e.g. pond, woodland etc., names of micro-habitats e.g. under logs, in bushes etc.**Knowledge**I can find a range of items outside that are living, dead and never lived.I can name a range of animals and plants that live in a habitat and micro-habitats that they have studied.I can talk about how the features of these animals and plants make them suitable to the habitat.I can talk about what the animals eat in a habitat and how the plants provide shelter for them.I can construct a food chain that starts with a plant and has the arrows pointing in the correct direction. |
| **Key Science NC Objectives** | **Y1 Plants**1. identify and name a variety of common wild and garden plants, including deciduous and evergreen trees
2. identify and describe the basic structure of a variety of common flowering plants, including trees

**Y2 Living things and their habitat**1. explore and compare the differences between things that are living, dead, and things that have never been alive
2. 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
3. identify and name a variety of plants and animals in their habitats, including micro-habitats
4. 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 Plants**1. observe and describe how seeds and bulbs grow into mature plants
2. find out and describe how plants need water, light and a suitable temperature to grow and stay healthy

**Y2 Animals including humans**1. notice that animals, including humans, have offspring which grow into adults
2. find out about and describe the basic needs of animals, including humans, for survival (water, food and air)
3. describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene
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**KS1 (Cycle 2)**

**Topic: Ourselves (Autumn 1)**

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| **Subject/Area of Learning** | **Skills and Knowledge** |
| Historical Chronology | I know the difference between long ago and now. |
| I have begun to understand how things change over time. |
| I can identify similarities and differences between different times. |
| I can compare modern and old objects; put 2 objects or events in order. |
| I know my life is different from the lives of people in the past. |
| I can put a few objects/events in order. |
| Historical Concepts | I can give you more than one cause of an event and give my reason why people in the past acted as they did. |
| Historical Interpretation | I know some of the ways in which we find out about the past. |
| I can tell you a few ways how the past has been described. |
| I understand some of the ways in which we find out about the past. |
| I can tell you a few ways how the past has been presented or described. |
| Historical Enquiry | I might be able to investigate questions to find answers. |
| I can ask questions about artefacts. |
| Use of basic geographical vocabulary | I use and understand basic geographical specific vocabulary relating to human and physical geography.  |
| I can use specific key vocabulary to describe physical features (beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season, weather) key human features (city, town, village, factory, farm, house, office, port, harbour, shop, address). |
| I can use mathematical vocabulary to describe position and location. |
| Map work skills | I can follow a route on prepared maps (left/right) & find information. |
| Human and physical geography: enquiry skills and communication | I can make a simple map (e.g. from a story).  |
| I can use & construct basic symbols in a key. |
| I can use locational and directional language (e.g. near and far; left and right) to describe the location of features and routes on a map. |
| I begin to explain how/why I can find information from aerial photographs.  |
| I can use simple features to compare objects, minerals, materials and living things. With help, I can decide how to sort and group them. |
| I can ask people questions and use simple secondary resources, select my own, reliable secondary sources. |
| I can observe closely using simple equipment to help. I can observe changes over time. |
| I can with guidance, begin to notice patterns and relationships. |
| I can use simple measurements and equipment (e.g. hand lenses, egg timers) to gather data. |
| I can record simple data using at least two different methods. |
| I can use my observations and ideas to suggest answers to questions. I can talk about what I found out and how I found it out and offer my own opinions. |
| I can with help, record and communicate my findings in a range of ways and begin to use scientific language. |
| Topic Knowledge and vocabulary (Geography and History) | I can tell you how UPS has changed and how Urmston has changed. I can talk about the differences and similarities. |
| Topic Knowledge and vocabulary | **Animals (Y1)****Key vocabulary**Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves; names of animals experienced first-hand from each vertebrate group (the children need to be able to name and identify a range of animals in each group e.g. name specific birds and fish. They do not need to use the terms mammal, reptiles etc. or know the key characteristics of each, although they will probably be able to identify birds and fish, based on their characteristics).(The children also do not need to use the words carnivore, herbivore and omnivore. If they do, ensure that they understand that carnivores eat other animals not just meat.)**Knowledge**I can name a range of animals which includes animals from each of the vertebrate groups.I can describe the key features of these named animals.I can label key features on a picture/diagram.I can write descriptively about an animal.I can describe what a range of animals eat.**Animals including Humans (Y2)****Key vocabulary:**Offspring, reproduction, growth, child, young/old stages (examples - chick/hen, baby/child/adult, caterpillar/butterfly), exercise, heartbeat, breathing, hygiene, germs, disease, food types (examples – meat, fish, vegetables, bread, rice, pasta)**Knowledge**I can describe how animals including humans have offspring which grow into adults, using the appropriate names for the stages.I can state the basic needs of animals, including humans, for survival.I can state the importance for humans of exercise, eating the right amounts of different types of food and hygiene.I can name foods in each section of the Eat well guide. |
| **Key Science NC Objectives** | **Y1 Animals**1. identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals
2. identify and name a variety of common animals that are carnivores, herbivores and omnivores
3. describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)

**Y2 Living things and their habitat**1. explore and compare the differences between things that are living, dead, and things that have never been alive
2. 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
3. identify and name a variety of plants and animals in their habitats, including micro-habitats
4. 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
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**Topic: Festivals and Celebrations ( Autumn 2)**

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| **Subject/Area of Learning** | **Skills and Knowledge** |
| Historical Chronology | I have begun go understand how things change over time. |
| I can identify similarities and differences between different times. |
| Human and physical geography: enquiry skills and communication | I can use observational skills and ask and respond to questions. |
| I can identify seasonal/ daily UK weather patterns. |
| I am beginning to study the key human and physical features of the surrounding environment of my school. |
| I can study the key human and physical features of the surrounding environment of my school. |
| I begin to explain how/why I can find information from aerial photographs.  |
| I use and apply Maths to help me to show learning. |
| Topic Knowledge and vocabulary | I can tell you about where different festivals and celebrations are across the world. |
|  | I can tell you how festivals have changed over time. |

**Topic: Fire and Ice ( Spring 1)**

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| **Subject/Area of Learning** | **Skills and Knowledge** |
| Historical Chronology | I know the difference between long ago and now. |
| I have begun to understand how things change over time. |
| I can identify similarities and differences between different times. |
| I can compare modern and old objects; put 2 objects or events in order. |
| I know my life is different from the lives of people in the past. |
| I can put a few objects/events in order. |
| Historical Concepts | I can give you more than one cause of an event and give my reason why people in the past acted as they did. |
| Historical Interpretation | I know some of the ways in which we find out about the past. |
| I can tell you a few ways how the past has been described. |
| I understand some of the ways in which we find out about the past. |
| I can tell you a few ways how the past has been presented or described. |
| Historical Enquiry | I might be able to investigate questions to find answers. |
| I can ask questions about artefacts. |
| Locational knowledge and Place knowledge | I can name, locate &identify characteristics of the 4 countries & capital cities of the UK & surrounding seas. |
| I understand similarities and differences of a small area of the UK & contrasting non-European country. |
| I understand geog. similarities and differences through studying the human & physical geography of a small area of the UK & contrasting non-European country. |
| Use of basic geographical vocabulary | I use and understand basic geographical specific vocabulary relating to human and physical geography.  |
| I can use specific key vocabulary to describe physical features. |
| Using globes, maps & plans. | I can identify the location of hot and cold areas of the world in relation to the Equator and the North and South Poles. |
| I can identify the countries, continents and oceans studied. |
| Topic Knowledge and vocabulary | I can tell you about the Great Fire of London. |
| I can tell you how London has changed over time. |
| I can tell you about the similarities and differences between London and Manchester (and even Urmston). |

**Topic: Fairy Tales ( Spring 2)**

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| **Subject/Area of Learning** | **Skills and Knowledge** |
| Historical Chronology | I know the difference between long ago and now. |
| I can compare modern and old objects; put 2 objects or events in order. |
| I know my life is different from the lives of people in the past. |
| I know where the people and events I have studied fit on a basic timeline. |
| I can tell you similarities and differences between ways of life at different times. |
| I can put a few objects/events in order. |
| I can name a few people in the past who have contributed to national and international achievements.  |
| I can give you more than one cause of an event and give my reason why people in the past acted as they did. |
| Historical Interpretation | I know some of the ways in which we find out about the past. |
| I can tell you a few ways how the past has been presented or described. |
| Historical Enquiry | I can ask questions about artefacts. |
| I might be able to investigate questions to find answers. |
| Historical Concepts | I can give you more than one cause of an event and give my reason why people in the past acted as they did. |
| Using globes, maps & plans. | I can use world maps, atlases and globes to identify UK & its countries. |
| I can identify the location of hot and cold areas of the world in relation to the Equator and the North and South Poles. |
| I can identify the countries, continents and oceans studied. |
| I can use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features. |
| Map work skills | I can use simple compass directions (NSEW). |
| Scientific Enquiry and applying knowledge in context | I can explore the world around me and raise my own simple questions. I can share my ideas with others. |
| I can experience different types of science enquiries, including practical activities. |
| I can begin to recognise different ways in which to answer scientific questions. |
| I can carry out simple tests using some basic equipment. |
| I can use simple features to compare objects, minerals, materials and living things. With help, I can decide how to sort and group them. |
| I can ask people questions and use simple secondary resources, select my own, reliable secondary sources. |
| I can observe closely using simple equipment to help. I can observe changes over time. |
| I can with guidance, begin to notice patterns and relationships. |
| I can use simple measurements and equipment (e.g. hand lenses, egg timers) to gather data. |
| I can record simple data using at least two different methods. |
| I can use my observations and ideas to suggest answers to questions. I can talk about what I found out and how I found it out and offer my own opinions. |
| I can with help, record and communicate my findings in a range of ways and begin to use scientific language. |
| Topic Knowledge and vocabulary | **Animals (Y1)****Key vocabulary**Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves; names of animals experienced first-hand from each vertebrate group (the children need to be able to name and identify a range of animals in each group e.g. name specific birds and fish. They do not need to use the terms mammal, reptiles etc. or know the key characteristics of each, although they will probably be able to identify birds and fish, based on their characteristics).(The children also do not need to use the words carnivore, herbivore and omnivore. If they do, ensure that they understand that carnivores eat other animals not just meat.)**Knowledge**I can name a range of animals which includes animals from each of the vertebrate groups.I can describe the key features of these named animals.I can label key features on a picture/diagram.I can write descriptively about an animal.I can describe what a range of animals eat.**Everyday Materials (Y1)****Key vocabulary**Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see through, not see through**Knowledge** I know all objects are made of one or more materials and some objects can be made from different materials e.g. plastic, metal or wooden spoons.I know materials can be described by their properties e.g. shiny, stretchy, rough etc. and that some materials e.g. plastic can be in different forms with very different properties.**Animals including Humans (Y2)****Key vocabulary**Offspring, reproduction, growth, child, young/old stages (examples - chick/hen, baby/child/adult, caterpillar/butterfly), exercise, heartbeat, breathing, hygiene, germs, disease, food types (examples – meat, fish, vegetables, bread, rice, pasta)**Knowledge**I can describe how animals including humans have offspring which grow into adults, using the appropriate names for the stages.I can state the basic needs of animals, including humans, for survival.I can state the importance for humans of exercise, eating the right amounts of different types of food and hygiene.I can name foods in each section of the Eat well guide**Uses of Everyday Materials (Y2)****Key vocabulary**Names of materials – increased range from year 1.Properties of materials - as for year 1 plus opaque, transparent and translucent, reflective, non-reflective, flexible, rigid, shape, push/pushing, pull/puling, twist/twisting, squash/squashing. Bend/bending, stretch/stretching**Knowledge**I know all objects are made of one or more materials that are chosen specifically because they have suitable properties for the task. For example, a water bottle is made of plastic because it is transparent allowing you to see the drink inside and waterproof so that it holds the water. I know that when choosing what to make an object from, the properties needed are compared with the properties of the possible materials, identified through simple tests and classifying activities. I know a material can be suitable for different purposes and an object can be made of different materials. I know objects made of some materials can be changed in shape by bending, stretching, squashing and twisting. For example, clay can be shaped by squashing, stretching, rolling, pressing etc. I know this can be a property of the material or depend on how the material has been processed e.g. thickness. |
| **Key Science NC Objectives** | **Y1 Animals**1. identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals
2. identify and name a variety of common animals that are carnivores, herbivores and omnivores
3. describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)

**Y1 Everyday materials**1. distinguish between an object and the material from which it is made
2. identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock
3. describe the simple physical properties of a variety of everyday materials
4. compare and group together a variety of everyday materials on the basis of their simple physical properties

**Y2 Living things and their habitat**1. explore and compare the differences between things that are living, dead, and things that have never been alive
2. 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
3. identify and name a variety of plants and animals in their habitats, including micro-habitats
4. 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 Animals including humans**1. notice that animals, including humans, have offspring which grow into adults
2. find out about and describe the basic needs of animals, including humans, for survival (water, food and air)
3. describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene

**Y2 Uses of everyday materials**1. identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses
2. find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching
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**Topic: Lowry ( Summer 1)**

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| **Subject/Area of Learning** | **Skills and Knowledge** |
| Fieldwork | I can use simple fieldwork and observational skills to study the geography of my school and its grounds.I can recognise and record different types of land use, buildings and environments. |
| I can complete a chart to express opinions during Fieldwork. |
| I use first hand observation to investigate places – the school grounds, the streets around and the local area. |
| Historical Chronology | I know the difference between long ago and now. |
| I can compare modern and old objects; put 2 objects or events in order. |
| I know my life is different from the lives of people in the past. |
| I know where the people and events I have studied fit on a basic timeline. |
| I can tell you similarities and differences between ways of life at different times. |
| I can put a few objects/events in order. |
| I can name a few people in the past who have contributed to national and international achievements.  |
| I can give you more than one cause of an event and give my reason why people in the past acted as they did. |
| Historical Interpretation | I know some of the ways in which we find out about the past. |
| I can tell you a few ways how the past has been presented or described. |
| Historical Enquiry | I can ask questions about artefacts. |
| I might be able to investigate questions to find answers. |
| Historical Concepts | I can give you more than one cause of an event and give my reason why people in the past acted as they did. |
| Topic Knowledge and vocabulary | I know all about Lowry and can tell you about his life and his work. |
| I can tell you where some of the locations of Lowry’s paintings are. |
| I can talk about Manchester and how it has changed over time. |

**Topic: Explorers ( Summer 2)**

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| **Subject/Area of Learning** | **Skills and Knowledge** |
| Historical Chronology | I know my life is different from the lives of people in the past. |
| I know where the people and events I have studied fit on a basic timeline. |
| I can tell you similarities and differences between ways of life at different times. |
| I can name a few people in the past who have contributed to national and international achievements.  |
| I can give you more than one cause of an event and give my reason why people in the past acted as they did. |
| Historical Interpretation | I know some of the ways in which we find out about the past. |
| Historical Enquiry | I can ask questions about artefacts. |
| I might be able to investigate questions to find answers. |
| Historical Concepts | I can give you more than one cause of an event and give my reason why people in the past acted as they did. |
| Locational knowledge and Place knowledge | I can name, locate &identify characteristics of the 4 countries & capital cities of the UK & surrounding seas. |
| I understand similarities and differences of a small area of the UK & contrasting non-European country. |
| Using globes, maps & plans. | I can use world maps, atlases and globes to identify UK & its countries. |
| I can identify the location of hot and cold areas of the world in relation to the Equator and the North and South Poles. |
| I can identify the countries, continents and oceans studied. |
| I can use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features. |
| Map work skills | I can follow a route on prepared maps (left/right) & find information.  |
| I can make a simple map (e.g. from a story).  |
| I can use & construct basic symbols in a key. |
| I can use locational and directional language (e.g. near and far; left and right) to describe the location of features and routes on a map. |
| I can use simple compass directions (NSEW). |
| Topic Knowledge and vocabulary | I can tell you all about some famous explorers – when they lived, where they did it, what they achieved and how they contributed to what we know…Christopher Columbus, Neil Armstrong and Amelia Earhart. I can tell you about what these explorers had in common. |
| ***Class Charity*** | ***I understand the role of UNICEF and how they help children across the world.*** |

**Year 3**

**Topic: Who First Lived In Britain? (6 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Locational and place knowledge | I understand how some aspects have changed over time. |
| Human and physical: enquiry skills and communication | I am beginning to describe key aspects of human geography including types of settlement and land use. |
| I can communicate geog. information in a variety of ways, including through maps and writing at length |
| Historical Chronology | I can understand that the past is divided into different periods or time, and begin to name some.  |
| I can place events, people and changes of British, local and world history, on a timeline. |
| I can put artefacts or information in chronological order.  |
| Historical Concepts | I can give some reasons for the results of the main events and changes of a time studied.  |
| I can tell you some of similarities/differences between different times in the past in periods covered so far. |
| Historical Interpretation | I can describe how the past can be represented in a few different ways. |
| Historical Enquiry | I can answer historically valid questions.  |
| I can use sources of information to help me answer questions about the past in sentences. |
| Historical Communication | I can present recalled or selected information in a variety of ways. |
| I can write sentences to describe some of the main events, people and changes in the history of Britain and the wider world. |
| I am beginning to use place value in the context of timelines. |
| Topical knowledge and use of vocabulary | What’s an archaeologist? What have they got to do with history? I can tell you that. |
| Do you need a trowel? I can tell you what tools archaeologists would have used.  |
| When was the Stone, Bronze and Iron Age? I know! |
| Where did they live? I know where those who lived Stone, Bronze and Iron Age settled and the key physical features. |
| Urgh, that’s disgusting!! I know what food was eaten during the Stone, Bronze and Iron Age. |
| Did they have mobiles then? No! I can discuss how they communicated instead.  |
| My bronze is better than your stone, my iron is better than your bronze….I can explain how things developed throughout these ages. |
| *Prehistoric Britain:* Where’s Stonehenge? I know! I can try and work out how they got it there too. |

**Topic: What Makes The Earth Angry Sometimes? (Rocks) (7/8 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Locational and place knowledge | I can locate the world’s countries, using maps to focus on Europe: environ-mental regions, key physical or human characteristics, countries, and major cities. |
| Fieldwork | I am able to use simple equipment to measure and record. |
| Use of basic geographical vocabulary | I continue to develop a wider geographical vocabulary, using terms such as routes, community, clouds, and rainfall, key, urban, rural, human, and physical to describe places or geographical features in different ways. |
| Using globes, maps and plans | I can understand need for a key.  |
| I understand the purpose of maps. |
| Human and physical: enquiry skills and communication | I can explain volcanoes/ earthquakes in simple terms. |
| I can communicate geog. information in a variety of ways, including through maps and writing at length |
| Historical Enquiry | I can answer historically valid questions.  |
| I can use sources of information to help me answer questions about the past in sentences. |
| Historical Communication | I can present recalled or selected information in a variety of ways. |
| I can write sentences to describe some of the main events, people and changes in the history of Britain and the wider world. |
| I am beginning to use place value in the context of timelines. |
| Scientific Enquiry and applying knowledge in context | I can raise my own relevant questions about the world around me. |
| I can be given a range of scientific experiences including different types of scientific enquiry. |
| I can start to make my own decisions about the most appropriate type of scientific enquiry I might use to answer questions. |
| I can set up simple practical enquiries, comparative and fair tests. Recognise when a simple fair test is necessary and help decide how to set it up. |
| I can talk about criteria for grouping, sorting and classifying; use simple keys, with some help. |
| I can recognise when and how secondary sources might help me to answer questions that cannot be answered through practical investigations. |
| I can make systematic and careful observations. I can help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. |
| I can begin to look for naturally occurring patterns and relationships; begin to decide what data to collect to identify them. |
| With help, I can take accurate measurements using standard units, learn how to use a range of equipment, such as data loggers and thermometers, appropriately. |
| I can collect and record data from my own observations and measurements in a variety of ways: notes, bar charts, tables. I can use standard units, drawings, labelled diagrams, keys and help to make decisions about how to analyse the data. |
| With help, I can look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions. |
| I can use relevant scientific language to discuss my ideas and communicate my findings in ways that are appropriate for different audiences, including oral and written explanations, displays or presentations of results and conclusions.  |
| With support, I can identify new questions arising from their data, making predictions for new values within or beyond the data they have already collected and finding ways of improving what I have already done. |
| Topical knowledge and use of vocabulary | Why is the earth sometimes angry?: What happened on the 2nd August AD 79 ? I know! |
| What’s that bit called? I can tell you the parts of a volcano.  |
| Cone? Shield? Composite? Yeah, I know which is which. |
| Find me a volcano! Ok then! I can do that. |
| Dormant? Active? Extinct? I know the difference.  |
| Stand back….it’s going to erupt! I can explain how and why.  |
| Crust, mantle, inner and outer core – I totally know those layers of the earth.  |
| Why does a Tsunami start? I know that one. |
| Why did that earthquake start? I can tell you! |
| What on earth’s a seismograph? I can tell you **and** make my own!  |
| Fossils look weird! How were they made? I know that!  |
| Sedimentary, metamorphic, and igneous. I totally know the difference.  |
| Urgh! That’s all dirty! Clay, sandy, peat, silt – different soils, yeah I understand.  |
| *I can write a 1st person account of surviving an Earthquake.* |
| ***Class Charity*** | ***I understand the role of the Red Cross as they help give humanitarian aid in crisis events.*** |
| **Key Science NC objectives** | 1. compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
2. describe in simple terms how fossils are formed when things that have lived are trapped within rock
3. recognise that soils are made from rocks and organic matter
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**Topic: What Can You Tell Me About Egypt? (5 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Locational and place knowledge | I can locate the world’s countries, using maps to focus on Europe (including Russia): environ-mental regions, key physical or human characteristics, countries, and major cities. |
| Use of basic geographical vocabulary | I continue to develop a wider geographical vocabulary, using terms such as routes, community, clouds, and rainfall, key, urban, rural, human, and physical to describe places or geographical features in different ways. |
| Human and physical: enquiry skills and communication | I can communicate geog. information in a variety of ways, including through maps and writing at length. |
| Historical Chronology | I can understand that the past is divided into different periods or time, and begin to name some.  |
| I can place events, people and changes of British, local and world history, on a timeline. |
| I can put artefacts or information in chronological order.  |
| Historical Concepts | I can give some reasons for the results of the main events and changes of a time studied.  |
| I am beginning to make a few connections and contrasts eg change, cause, similarity, difference and significance. |
| I can tell you some of similarities/differences between different times in the past in periods covered so far. |
| Historical Interpretation | I am starting to think critically, weigh evidence, sift arguments and develop perspective and judgement. |
| I can describe how the past can be represented in a few different ways. |
| Historical Enquiry | I can answer historically valid questions.  |
| I can use sources of information to help me answer questions about the past in sentences. |
| Historical Communication | I can present recalled or selected information in a variety of ways. |
| I can write sentences to describe some of the main events, people and changes in the history of Britain and the wider world. |
| I am beginning to use place value in the context of timelines. |
| Topical knowledge and use of vocabulary | I know where Egypt is and why do so many people enjoy going on holiday there. |
| I can tell you what an archaeologist is and how have they helped us find out about the past. |
| I know when the Ancient Egyptians lived. |
| I know where the Ancient Egyptians settled and the key physical features. |
| I can tell you about some Egyptian gods and what the ancient Egyptians believed. |
| I can tell you all about the stages of mummification. |
| I can tell you all about the Pyramids – when and how they were built. |
| I can tell you what we have learnt from the Ancient Egyptians writing. |
| I know who the Pharaohs were and why were they very important. |
| I know what I would ask an Ancient Egyptian. |
| I can tell you how we all go Strictly Come Egyptian dancing. |

**Topic: How Far Can You Throw Your Shadow? (Light) (3 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Fieldwork | I can conduct surveys. |
| I am able to use simple equipment to measure and record. |
| Scientific Enquiry and applying knowledge in context | I can raise my own relevant questions about the world around me. |
| I can be given a range of scientific experiences including different types of scientific enquiry. |
| I can start to make my own decisions about the most appropriate type of scientific enquiry I might use to answer questions. |
| I can set up simple practical enquiries, comparative and fair tests. Recognise when a simple fair test is necessary and help decide how to set it up. |
| I can talk about criteria for grouping, sorting and classifying; use simple keys, with some help. |
| I can recognise when and how secondary sources might help me to answer questions that cannot be answered through practical investigations. |
| I can make systematic and careful observations. I can help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. |
| I can begin to look for naturally occurring patterns and relationships; begin to decide what data to collect to identify them. |
| I can collect and record data from my own observations and measurements in a variety of ways: notes, bar charts, tables. I can use standard units, drawings, labelled diagrams, keys and help to make decisions about how to analyse the data. |
| I can use relevant scientific language to discuss my ideas and communicate my findings in ways that are appropriate for different audiences, including oral and written explanations, displays or presentations of results and conclusions.  |
| With support, I can identify new questions arising from their data, making predictions for new values within or beyond the data they have already collected and finding ways of improving what I have already done. |
| Topical knowledge and use of vocabulary | I can describe how we see objects in light and can describe dark as the absence of light  |
| I can state that it is dangerous to view the sun directly and state precautions used to view the sun, for example in eclipses |
| I can define transparent, translucent and opaque. |
| I can describe how shadows are formed by objects blocking light. |
| **Key Science NC objectives** | 1. recognise that they need light in order to see things and that dark is the absence of light
2. notice that light is reflected from surfaces
3. recognise that light from the sun can be dangerous and that there are ways to protect their eyes
4. recognise that shadows are formed when the light from a light source is blocked by an opaque object
5. find patterns in the way that the size of shadows change
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**Topic: How Did That Blossom Become An Apple? (Plants) (3 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
|  | I am able to use simple equipment to measure and record. |
| Scientific Enquiry and applying knowledge in context | I can raise my own relevant questions about the world around me. |
| I can be given a range of scientific experiences including different types of scientific enquiry. |
| I can start to make my own decisions about the most appropriate type of scientific enquiry I might use to answer questions. |
| I can set up simple practical enquiries, comparative and fair tests. Recognise when a simple fair test is necessary and help decide how to set it up. |
| I can talk about criteria for grouping, sorting and classifying; use simple keys, with some help. |
| I can make systematic and careful observations. I can help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. |
| I can begin to look for naturally occurring patterns and relationships; begin to decide what data to collect to identify them. |
| With help, I can take accurate measurements using standard units, learn how to use a range of equipment, such as data loggers and thermometers, appropriately. |
| I can collect and record data from my own observations and measurements in a variety of ways: notes, bar charts, tables. I can use standard units, drawings, labelled diagrams, keys and help to make decisions about how to analyse the data. |
| I can use relevant scientific language to discuss my ideas and communicate my findings in ways that are appropriate for different audiences, including oral and written explanations, displays or presentations of results and conclusions.  |
| Topical knowledge and use of vocabulary | How did that blossom become an apple?: Where does than banana come from? I know that (and other fruits too). |
| I can explain the function of the parts of a flowering plant |
| I can describe the life cycle of flowering plants, including pollination, seed formation, seed dispersal, and germination |
| I can give different methods of pollination and seed dispersal, including examples |
| **Key Science NC objectives** | 1. identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers
2. 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
3. investigate the way in which water is transported within plants
4. explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal
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**Topic: What Can You Tell Me About Magnets? (Forces and Magnets) (2 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Fieldwork | I am able to use simple equipment to measure and record. |
| Scientific Enquiry and applying knowledge in context | I can raise my own relevant questions about the world around me. |
| I can be given a range of scientific experiences including different types of scientific enquiry. |
| I can start to make my own decisions about the most appropriate type of scientific enquiry I might use to answer questions. |
| I can set up simple practical enquiries, comparative and fair tests. Recognise when a simple fair test is necessary and help decide how to set it up. |
| I can talk about criteria for grouping, sorting and classifying; use simple keys, with some help. |
| I can recognise when and how secondary sources might help me to answer questions that cannot be answered through practical investigations. |
| I can make systematic and careful observations. I can help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. |
| I can begin to look for naturally occurring patterns and relationships; begin to decide what data to collect to identify them. |
| With help, I can take accurate measurements using standard units, learn how to use a range of equipment, such as data loggers and thermometers, appropriately. |
| I can collect and record data from my own observations and measurements in a variety of ways: notes, bar charts, tables. I can use standard units, drawings, labelled diagrams, keys and help to make decisions about how to analyse the data. |
| With help, I can look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions. |
| I can use relevant scientific language to discuss my ideas and communicate my findings in ways that are appropriate for different audiences, including oral and written explanations, displays or presentations of results and conclusions.  |
| With support, I can identify new questions arising from their data, making predictions for new values within or beyond the data they have already collected and finding ways of improving what I have already done. |
| Topical knowledge and use of vocabulary | I can give examples of forces in everyday life. |
| I can give examples of objects moving differently on different surfaces. |
| I can name a range of types of magnets and show how the poles attract and repel. |
| I can draw diagrams using arrows to show the attraction and repulsion between the poles of magnets. |
| **Key Science NC objectives** | 1. compare how things move on different surfaces
2. notice that some forces need contact between two objects, but magnetic forces can act at a distance
3. observe how magnets attract or repel each other and attract some materials and not others
4. 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
5. describe magnets as having two poles

predict whether two magnets will attract or repel each other, depending on which poles are facing |

**Topic: How Does Usain Bolt Run So Fast? (Animals, including humans) (3 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Fieldwork | I am able to use simple equipment to measure and record. |
| Scientific Enquiry and applying knowledge in context | I can raise my own relevant questions about the world around me. |
| I can be given a range of scientific experiences including different types of scientific enquiry. |
| I can start to make my own decisions about the most appropriate type of scientific enquiry I might use to answer questions. |
| I can set up simple practical enquiries, comparative and fair tests. Recognise when a simple fair test is necessary and help decide how to set it up. |
| I can talk about criteria for grouping, sorting and classifying; use simple keys, with some help. |
| I can recognise when and how secondary sources might help me to answer questions that cannot be answered through practical investigations. |
| I can make systematic and careful observations. I can help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. |
| I can begin to look for naturally occurring patterns and relationships; begin to decide what data to collect to identify them. |
| With help, I can take accurate measurements using standard units, learn how to use a range of equipment, such as data loggers and thermometers, appropriately. |
| I can collect and record data from my own observations and measurements in a variety of ways: notes, bar charts, tables. I can use standard units, drawings, labelled diagrams, keys and help to make decisions about how to analyse the data. |
| With help, I can look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions. |
| I can use relevant scientific language to discuss my ideas and communicate my findings in ways that are appropriate for different audiences, including oral and written explanations, displays or presentations of results and conclusions.  |
| With support, I can identify new questions arising from their data, making predictions for new values within or beyond the data they have already collected and finding ways of improving what I have already done. |
| Topical knowledge and use of vocabulary | I can name the nutrients found in food |
| I can state that to be healthy we need to eat the right types of food to give us the correct amount of these nutrients |
| I can name some bones that make up their skeleton giving examples that support, help them move or provide protection |
| I can describe how muscles and joints help them to move |
| **Key Science NC objectives** | 1. 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
2. identify that humans and some other animals have skeletons and muscles for support, protection and movement
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**Topic: What Can You Tell Me About Blackpool? (6 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Locational and place knowledge | I can locate the world’s countries, using maps to focus on Europe: environ-mental regions, key physical or human characteristics, countries, and major cities. |
| I understand how some aspects have changed over time. |
| I can understand geographical similarities and differences of human & physical geography of a region of the UK and in a European country |
| Fieldwork | I use fieldwork to observe, measure and record some of the human and physical features of a familiar area using sketch maps and graphs. |
| I can conduct surveys. |
| Use of basic geographical vocabulary | I continue to develop a wider geographical vocabulary, using terms such as routes, community, clouds, and rainfall, key, urban, rural, human, and physical to describe places or geographical features in different ways. |
| Map work skills | I can begin to use smaller scale aerial views. |
| I can use the 8 points of a compass. |
| I can use simple grids with letters and numbers and 4-figure coordinates to locate features. |
| I can use plans.  |
| Human and physical: enquiry skills and communication | I can communicate geog. information in a variety of ways, including through maps and writing at length. |
| I can identify differences between places. |
| Historical Chronology | I can understand that the past is divided into different periods or time, and begin to name some.  |
| I can place events, people and changes of British, local and world history, on a timeline. |
| Historical Concepts | I can give some reasons for the results of the main events and changes of a time studied.  |
| I am beginning to make a few connections and contrasts eg change, cause, similarity, difference and significance. |
| I can tell you some of similarities/differences between different times in the past in periods covered so far. |
| Historical Interpretation | I am starting to think critically, weigh evidence, sift arguments and develop perspective and judgement. |
| Historical Enquiry | I can answer historically valid questions.  |
| I can use sources of information to help me answer questions about the past in sentences. |
| Historical Communication | I can present recalled or selected information in a variety of ways. |
| I can write sentences to describe some of the main events, people and changes in the history of Britain and the wider world. |
| I am beginning to use place value in the context of timelines. |
| Topical knowledge and use of vocabulary | *Can you tell me about Blackpool?:* Ooh you’re sooooo popular! I know when Blackpool was and wasn’t. |
| Yeaaahhhh the Pleasure Beach!! But where is it and how do we get there? I know that and can label the route.  |
| Then and now? What’s the difference? I can talk about that.  |
| The Blackpool Tower, The Sandcastle, The Pleasure Beach…I can name loads of landmarks (and some olden days ones). Is it hot in Blackpool? I can record that.  |
| What’s your favourite landmark? And yours? Let me show you in a graph.  |
| Why did nobody want to go there then? I can analyse tourism data to find out. |

**Supplementary Topic: Additional Mapping Skills (1 week)**

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| **Area of Learning** | **Knowledge and Skills** |
| Locational and place knowledge | I can locate the world’s countries, using maps to focus on Europe: environmental regions, key physical or human characteristics, countries, and major cities. |
| Fieldwork | I can conduct surveys. |
| I am able to use simple equipment to measure and record. |
| I use fieldwork to observe, measure and record some of the human and physical features of a familiar area using sketch maps and graphs. |
| Using globes, maps and plans | I can understand the need for a key.  |
| I understand the purpose of maps. |
| Map work skills | I can begin to use smaller scale aerial views. |
| I can use the 8 points of a compass. |
| I can use simple grids with letters and numbers and 4-figure coordinates to locate features. |
| I can use plans.  |

**Year 4**

**Topic: Why Is Music Enjoyed By So Many? (Sound) (4 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Scientific Enquiry and applying knowledge in context | I can raise my own relevant questions about the world around me and begin to look for answers. |
| I am given a range of scientific experiences including different types of scientific enquiry to answer questions. |
| I can start to make my own decisions about the most appropriate type of scientific enquiry I might use to answer questions and give justifications. |
| I can set up simple practical enquiries, comparative and fair tests. Recognise when a simple fair test is necessary and help decide how to set it up. |
| I can talk about criteria for grouping, sorting and classifying; use simple keys and explain how they should be used. |
| I can recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations. I can use a selection of resources  |
| I can make systematic and careful observations. I can make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. |
|  I can look for naturally occurring patterns and relationships; decide what data to collect to identify them. |
| I can take accurate measurements using standard units, learn how to use a range of equipment, such as data loggers and thermometers, appropriately. |
| I can collect and record data from their own observations and measurements in a variety of ways: notes, bar charts, tables. I can select and use the most appropriate standard units, drawings, labelled diagrams, keys and help to make decisions about how to analyse the data. |
| I can look for changes, patterns, similarities and differences in their data in order to draw accurate conclusions and answer further questions |
| I can confidently use relevant scientific language to discuss their ideas and communicate their findings, in ways that are appropriate for different audiences, including oral and written explanations, displays or presentations of results and conclusions.  |
| I can identify new questions arising from my data, making predictions for new values within or beyond the data I have already collected and finding ways of improving what I have already done. |
| Topical knowledge and use of vocabulary | Good, good, good, good vibrations…that’s what sounds are and I know it!  |
| Pitch? Volume? Distance? I can tell you what they all are.  |
| What’s that in your ear?…Aahhh yes, I know what’s what!  |
| I can state that sounds travel through different mediums such as air, water, metal |
| I can give examples to demonstrate how the pitch of a sound are linked to the features of the object that produced it |
| I can give examples of how to change the volume of a sound e.g. increase the size of vibrations by hitting or blowing harder |
| I can give examples to demonstrate that sounds get fainter as the distance from the sound source increases |
| **NC Science Objectives** | 1. identify how sounds are made, associating some of them with something vibrating
2. recognise that vibrations from sounds travel through a medium to the ear
3. find patterns between the pitch of a sound and features of the object that produced it
4. find patterns between the volume of a sound and the strength of the vibrations that produced it
5. recognise that sounds get fainter as the distance from the sound source increases
 |

**Topic: History of The Romans (4 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Locational and place knowledge | I understand how some aspects have changed over time. |
| Using globes, maps and plans | I can use a globe & maps & some OS symbols on maps to name geographical regions & identifying physical and human characteristics, including. cities, rivers, mountains, hills, key topographical features, land-use patterns (also mapping week). |
| I can use atlases to find places using index/ contents (also mapping week). |
| Historical chronology | I can understand that the past is divided into differently names periods of time and use some dates to explain British, local and world history. |
| I can place events, people and changes of British, local and world history, on a timeline, using appropriate dates/chronological conventions eg BC, BCE and AD. |
| I can put artefacts or information in chronological order. |
| Historical concepts | I can give a few reasons for the results of the main events and changes of a time studied.  |
| I can make a few connections and contrasts eg change, cause, similarity, difference and significance. |
| I can tell you a range of similarities/differences between different times in the past in periods covered so far. |
| Historical interpretation | To think critically, weigh evidence, sift arguments and develop perspective and judgement. |
| I can describe how the past can be represented or interpreted in a few different ways. |
| Historical enquiry | I can answer and sometimes devise my own historically valid questions.  |
| I can use one or more sources of information to help me answer questions about the past in sentences. |
| Historical communication | I can present recalled or selected information in a variety of ways using specialist terms. |
| I can write sentences or a paragraph to describe some of the main events, people and changes in the history of Britain and the wider world. |
| Topical knowledge and use of vocabulary | No women allowed! Joining the army wasn’t for everyone. |
| I can tell you all about the values they had to uphold. |
| How can they carry all that weight? I am amazed because I know what Roman soldiers wore. |
| Yes sir! I know about the army’s chain of command and the respect that was expected.  |
| This is our land! You’re not wanted here! I know the Celt’s reactions to the Roman army invading Britain and how resilient they had to be.  |
| Romans brought Roads, money…and lots of other things to Britain. Sounds great – right? Some people didn’t think so.  |
| Hero or menace? You decide! I know about the differing opinions to Boudicca. (Cross curricular writing link – information text) |
| You wouldn’t want to get on the wrong side of Boudicca -I know all about her and the responsibility she had.  |
| I know about Roman forts, their features and the pride they had for them – you weren’t getting in without a fight! |
| I, V, IV, X….these are no problem for me…I can use Roman Numerals (Cross curricular Maths link – number). |
| Never mind 30 minutes of light exercise a day…I know how fit and well trained the Roman army needed to be |
| The Romans marched all that way? I know where Rome is on a map. |

**Topic: How Would We Survive Without Water? (States of matter)**

**(4 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Human and physical: enquiry skills and communication | I can describe & understand key aspects of: physical geography, including rivers and mountains. |
| I can describe the water cycle using a diagram.  |
| I can describe key aspects of human geography including types of settlement and land use, economic activity and the distribution of some natural resources of the countries studied. |
| I can communicate geography information in a variety of ways, including through maps and writing at length. |
| Scientific Enquiry and applying knowledge in context | I can raise my own relevant questions about the world around me and begin to look for answers. |
| I am given a range of scientific experiences including different types of scientific enquiry to answer questions. |
| I can start to make my own decisions about the most appropriate type of scientific enquiry I might use to answer questions and give justifications. |
| I can set up simple practical enquiries, comparative and fair tests. Recognise when a simple fair test is necessary and help decide how to set it up. |
| I can talk about criteria for grouping, sorting and classifying; use simple keys and explain how they should be used. |
| I can recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations. I can use a selection of resources  |
| I can make systematic and careful observations. I can make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. |
|  I can look for naturally occurring patterns and relationships; decide what data to collect to identify them. |
| I can take accurate measurements using standard units, learn how to use a range of equipment, such as data loggers and thermometers, appropriately. |
| I can collect and record data from their own observations and measurements in a variety of ways: notes, bar charts, tables. I can select and use the most appropriate standard units, drawings, labelled diagrams, keys and help to make decisions about how to analyse the data. |
| I can look for changes, patterns, similarities and differences in their data in order to draw accurate conclusions and answer further questions |
| I can confidently use relevant scientific language to discuss their ideas and communicate their findings, in ways that are appropriate for different audiences, including oral and written explanations, displays or presentations of results and conclusions.  |
| I can identify new questions arising from my data, making predictions for new values within or beyond the data I have already collected and finding ways of improving what I have already done. |
| Topical knowledge and use of vocabulary | Rivers in the UK, I know the names of a few (also in mapping week).  |
| I know the name of some mountain ranges in the UK.  |
| What’s the water cycle? I’ll tell you just what evaporation, condensation, precipitation and collection are! (Everyday examples) |
| Round and round... I know how the water cycle helps form rivers. |
| Solids…liquids…gases – all changing from state to state…and I know how and when (properties)  |
| Heating and cooling substances…I can explain what happens, how and why it has that effect! (Melting and freezing) |
| ***Class charity*** | ***The Water Aid heroes…I can tell you what they do and why!*** |
| **NC Science Objectives** | 1. compare and group materials together, according to whether they are solids, liquids or gases
2. 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)
3. identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature
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**Topic: How Would You Cope Without Electricity For A Week? (Electricity) (4 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Scientific Enquiry and applying knowledge in context | I can raise my own relevant questions about the world around me and begin to look for answers. |
| I am given a range of scientific experiences including different types of scientific enquiry to answer questions. |
| I can start to make my own decisions about the most appropriate type of scientific enquiry I might use to answer questions and give justifications. |
| I can set up simple practical enquiries, comparative and fair tests. Recognise when a simple fair test is necessary and help decide how to set it up. |
| I can talk about criteria for grouping, sorting and classifying; use simple keys and explain how they should be used. |
| I can recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations. I can use a selection of resources  |
| I can make systematic and careful observations. I can make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. |
|  I can look for naturally occurring patterns and relationships; decide what data to collect to identify them. |
| I can take accurate measurements using standard units, learn how to use a range of equipment, such as data loggers and thermometers, appropriately. |
| I can collect and record data from their own observations and measurements in a variety of ways: notes, bar charts, tables. I can select and use the most appropriate standard units, drawings, labelled diagrams, keys and help to make decisions about how to analyse the data. |
| I can look for changes, patterns, similarities and differences in their data in order to draw accurate conclusions and answer further questions |
| I can confidently use relevant scientific language to discuss their ideas and communicate their findings, in ways that are appropriate for different audiences, including oral and written explanations, displays or presentations of results and conclusions.  |
| I can identify new questions arising from my data, making predictions for new values within or beyond the data I have already collected and finding ways of improving what I have already done. |
| Topical knowledge and use of vocabulary | Keeping the heat in and keeping it out…I know all about insulators and conductors. |
| Electrical circuits…I can make them and tell you how! (inc. switches) |
| …and I can use the right symbols too.  |
| We get electricity from loads of sources…and I can tell you them all (wind, solar, hydro, battery, nuclear).  |
| **NC Science Objectives** | 1. identify common appliances that run on electricity
2. construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
3. 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
4. recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit
5. recognise some common conductors and insulators, and associate metals with being good conductors
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**Topic: Park Life (Living things and their habitats) (4 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Fieldwork | I use fieldwork to observe, measure and record some of the human and physical features in the local area using sketch maps and graphs.  |
| I can also investigate the types of shops, services and housing in the local area.  |
| I can carry out a simple questionnaire.  |
| I can apply mathematical skills in data handling to Geography fieldwork. |
| Use of basic geographical vocabulary | I am beginning to apply the vocabulary of other subjects such as maths and science when describing geographical features and processes. |
| Scientific Enquiry and applying knowledge in context | I can raise my own relevant questions about the world around me and begin to look for answers. |
| I am given a range of scientific experiences including different types of scientific enquiry to answer questions. |
| I can start to make my own decisions about the most appropriate type of scientific enquiry I might use to answer questions and give justifications. |
| I can set up simple practical enquiries, comparative and fair tests. Recognise when a simple fair test is necessary and help decide how to set it up. |
| I can talk about criteria for grouping, sorting and classifying; use simple keys and explain how they should be used. |
| I can recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations. I can use a selection of resources  |
| I can make systematic and careful observations. I can make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. |
|  I can look for naturally occurring patterns and relationships; decide what data to collect to identify them. |
| I can take accurate measurements using standard units, learn how to use a range of equipment, such as data loggers and thermometers, appropriately. |
| I can collect and record data from their own observations and measurements in a variety of ways: notes, bar charts, tables. I can select and use the most appropriate standard units, drawings, labelled diagrams, keys and help to make decisions about how to analyse the data. |
| I can look for changes, patterns, similarities and differences in their data in order to draw accurate conclusions and answer further questions |
| I can confidently use relevant scientific language to discuss their ideas and communicate their findings, in ways that are appropriate for different audiences, including oral and written explanations, displays or presentations of results and conclusions.  |
| I can identify new questions arising from my data, making predictions for new values within or beyond the data I have already collected and finding ways of improving what I have already done. |
| Topical knowledge and use of vocabulary | Producers, consumers, predators and prey: I know my food chains and can draw my own. |
| You go there, you go there, you go there – I can classify living things (sort animals and habitats into groups). |
| I can name living things living in a range of habitats, giving the key features that helped them to identify them |
| I can give examples of how an environment may change both naturally and due to human impact |
| **NC Science Objectives** | 1. recognise that living things can be grouped in a variety of ways
2. construct and interpret a variety of food chains, identifying producers, predators and prey
3. explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
4. recognise that environments can change and that this can sometimes pose dangers to living things
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**Topic: What Happens To The Food We Eat? (Animals including humans) (3 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Scientific Enquiry and applying knowledge in context | I can raise my own relevant questions about the world around me and begin to look for answers. |
| I am given a range of scientific experiences including different types of scientific enquiry to answer questions. |
| I can start to make my own decisions about the most appropriate type of scientific enquiry I might use to answer questions and give justifications. |
| I can set up simple practical enquiries, comparative and fair tests. Recognise when a simple fair test is necessary and help decide how to set it up. |
| I can talk about criteria for grouping, sorting and classifying; use simple keys and explain how they should be used. |
| I can recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations. I can use a selection of resources  |
| I can make systematic and careful observations. I can make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. |
|  I can look for naturally occurring patterns and relationships; decide what data to collect to identify them. |
| I can take accurate measurements using standard units, learn how to use a range of equipment, such as data loggers and thermometers, appropriately. |
| I can collect and record data from their own observations and measurements in a variety of ways: notes, bar charts, tables. I can select and use the most appropriate standard units, drawings, labelled diagrams, keys and help to make decisions about how to analyse the data. |
| I can look for changes, patterns, similarities and differences in their data in order to draw accurate conclusions and answer further questions |
| I can confidently use relevant scientific language to discuss their ideas and communicate their findings, in ways that are appropriate for different audiences, including oral and written explanations, displays or presentations of results and conclusions.  |
| I can identify new questions arising from my data, making predictions for new values within or beyond the data I have already collected and finding ways of improving what I have already done. |
| Topical knowledge and use of vocabulary | What? Food travels around the body? Yep…the digestive system…I’ll tell you about it! (identify parts, process) |
| Put those gnashers away! I know about the different teeth in animals (carnivores, herbivores and omnivores). |
| Twice a day people. I know about oral hygiene and take responsibility for my own. |
| **NC Science Objectives** | 1. describe the simple functions of the basic parts of the digestive system in humans
2. identify the different types of teeth in humans and their simple functions
3. construct and interpret a variety of food chains, identifying producers, predators and prey
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**Topic: Early Law Makers (China – Shang Dynasty) (3 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Locational and place knowledge | I understand how some aspects have changed over time. |
| Using globes, maps and plans | I can use a globe & maps & some OS symbols on maps to name geographical regions & identifying physical and human characteristics, including. cities, rivers, mountains, hills, key topographical features, land-use patterns; |
| I can use atlases to find places using index/ contents. |
| Historical chronology | I can understand that the past is divided into differently names periods of time and use some dates to explain British, local and world history. |
| I can place events, people and changes of British, local and world history, on a timeline, using appropriate dates/chronological conventions eg BC, BCE and AD. |
| I can put artefacts or information in chronological order. |
| Historical concepts | I can give a few reasons for the results of the main events and changes of a time studied.  |
| I can make a few connections and contrasts eg change, cause, similarity, difference and significance. |
| I can tell you a range of similarities/differences between different times in the past in periods covered so far. |
| Historical interpretation | To think critically, weigh evidence, sift arguments and develop perspective and judgement. |
| I can describe how the past can be represented or interpreted in a few different ways. |
| Historical enquiry | I can answer and sometimes devise my own historically valid questions.  |
| I can use one or more sources of information to help me answer questions about the past in sentences. |
| Historical communication | I can present recalled or selected information in a variety of ways using specialist terms. |
| I can write sentences or a paragraph to describe some of the main events, people and changes in the history of Britain and the wider world. |
| I am beginning to use place value in the context of timelines. |
| Topical knowledge and use of vocabulary | They may have been harsh and very different to ours now but we know some of the Shang Dynasty’s early laws. |
| I uphold the law and I also know why we need laws and who was responsible for them. |
| WE ALL GET A SAY! I know about democracy and the responsibility of voting. |
| We know about the government and the political parties around now and what values they try to uphold. |
| They may be far away but I know where China is on a map or globe. |

**Topic: Why is Manchester such a cool place to live? (4 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Locational and place knowledge | I can name and locate geographical regions of the UK & their identifying physical and human characteristics, including some cities and some key topographical features including hills, mountains, coasts and rivers. |
| I understand how some aspects have changed over time. |
| I can understand geographical similarities and differences of human & physical geography of a region of the UK and in a European country. |
| Fieldwork | I use fieldwork to observe, measure and record some of the human and physical features in the local area using sketch maps and graphs.  |
| I can also investigate the types of shops, services and housing in the local area.  |
| I can carry out a simple questionnaire.  |
| I can apply mathematical skills in data handling to Geography fieldwork. |
| Use of basic geographical vocabulary | I am beginning to apply the vocabulary of other subjects such as maths and science when describing geographical features and processes. |
| Using globes, maps and plans | I can use a globe & maps & some OS symbols on maps to name geographical regions & identifying physical and human characteristics, including. cities, rivers, mountains, hills, key topographical features, land-use patterns; |
| I can use atlases to find places using index/ contents. |
| Mapping skills | I can map evidence from fieldwork e.g. sketch annotated views. |
| I can use aerial photos and satellite images. |
| I can use oblique aerial views. |
| Human and physical: enquiry skills and communication | I can describe & understand key aspects of: physical geography, including rivers and mountains. |
| Historical chronology | I can understand that the past is divided into differently names periods of time and use some dates to explain British, local and world history. |
| I can place events, people and changes of British, local and world history, on a timeline, using appropriate dates/chronological conventions eg BC, BCE and AD. |
| Historical concepts | I can give a few reasons for the results of the main events and changes of a time studied.  |
| I can make a few connections and contrasts eg change, cause, similarity, difference and significance. |
| I can tell you a range of similarities/differences between different times in the past in periods covered so far. |
| Topical knowledge and use of vocabulary | It’s not like it used to be… I can talk about the local history of Manchester. |
| Wow is this the same place? My local area of Manchester has changed so much.  |
| I know the history of some buildings in my local area of Manchester and the pride of the people who live there. |
| Mannnnnchesssssta! I know where Manchester is on a map or globe.  |
| We may not always be great at football but I know which country Manchester is in.  |
| We are family…I bring all the countries with me. I know which countries make up the UK and Great Britain. |
| Capital cities in Europe? No problem…I can name some of those.  |
| Flying high and proud, I know the flags of some countries in Europe. |
| The Queen, she lives in our capital city (London). I know where that is on a map or globe (and the houses of Parliament). |

**Supplementary Topic: Additional Mapping Skills (1 week)**

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| --- | --- |
| **Area of Learning** | **Knowledge and Skills** |
| Locational and place knowledge | I can name and locate geographical regions of the UK & their identifying physical and human characteristics, including some cities and some key topographical features including hills, mountains, coasts and rivers. |
| I can understand geographical similarities and differences of human & physical geography of a region of the UK and in a European country. |
| Using globes, maps and plans | I can use a globe & maps & some OS symbols on maps to name geographical regions & identifying physical and human characteristics, including. cities, rivers, mountains, hills, key topographical features, land-use patterns; |
| I can use atlases to find places using index/ contents. |
| I am beginning to understand scale and distance on a map, using and applying mathematical skills. |
| Map work skills | I can use and understand Ordnance Survey symbols and keys to build up my knowledge of a local place, the UK and the wider world.  |
| Human and physical: enquiry skills and communication | I can describe & understand key aspects of: physical geography, including rivers and mountains. |
| I apply mathematical skills when using geography data, etc. |

**Topic:** **Brazil And The Amazon Rainforest (5 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Historical Chronology | I am beginning to show a chronically secure knowledge and understanding of local, national and global history. |
| Historical Concepts | To begin to understand historical concepts cause and consequence, continuity, change, similarity, difference etc. |
| I understand change and continuity. |
| I can question change, cause, difference, similarity and significance in a wider context. |
| I am beginning to understand the complexity of people’s lives in the past and how some societies are very different due to changes or challenges at the time. |
| I can see trends over time. |
| Locational and place knowledge | I know some of the world’s countries, focusing on North and South America concentrating on environmental regions, key physical or human characteristics, countries, and major cities. |
| I can understand geographical similarities and differences through the study of human and physical geography of a region of the UK and a region within N. or S. America. (I also draw on the case study of Europe in lower KS2). |
| Use of basic geographical vocabulary | I introduce precise geographical words when describing geographical places features & processes such as erosion, deposition, mouth source tributary, cliff, bay, headland relief, resort, port, derelict, latitude, longitude, distribution, industry, network, region raw material, energy, fuel, power natural resource labour.  |
| Using globes, maps and plans | I can locate the world’s countries, using maps to focus on North & South America. |
| I can interpret a range of sources of geographical information, including maps, globes, aerial photographs and Geographical Information Systems (GIS). |
| Human and physical: enquiry skills and communication | I know location of places of global significance, their defining physical & human characteristics and how they relate to one another.  |
| I can understand key aspects of physical geography e.g. climate zones, biomes and vegetation belts. |
| Topical knowledge and use of vocabulary | I can locate and name the main countries in South America on a world map and atlas. |
| I can begin to recognise the climate of a given country according to its location on the map? |
| I know what fruits and other natural resources is Brazil famous for. |
| I know which famous cities in Brazil attract tourists and why. |
| I know some Brazilian symbols, including the flag. |
| I know why Brazil is famous for its dancing. |
| I can tell people about the street children of Brazil. |
| I can tell you some things about a famous Brazilian. |
| I know where the Amazon rainforest is located and what its main features are. |
| I know why rainforests are often in the news and what can we do to help. |
| I can tell you about an endangered animal that lives in the rainforest. |
| I know how important the Amazon river is to the South American rainforests. |
| ***Class Charity*** | ***I know the impact that work done by The Woodland Trust has on the environment.*** |

**Topic: The English Civil War (4 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Historical Chronology | I can demonstrate a some knowledge of chronological narrative, knowledge and understanding of Britain’s past and the wider world  |
| I am beginning to show a chronically secure knowledge and understanding of local, national and global history. |
| I can tell the story of events within and across the time periods I have studied.  |
| I can identify specific changes across different time periods.  |
| Historical Concepts | To begin to understand historical concepts cause and consequence, continuity, change, similarity, difference etc. |
| I understand change and continuity. |
| I can question change, cause, difference, similarity and significance in a wider context. |
| I am beginning to understand the complexity of people’s lives in the past and how some societies are very different due to changes or challenges at the time. |
| I can see trends over time. |
| I can see the relationship between different periods and the legacy. |
| Historical Interpretation | To start to think critically and debate ideas. |
| I can explain that the past can be represented or interpreted differently. |
| I am becoming aware of different views about people and events studied and can give some reasons why different versions of the past exist. |
| Historical Enquiry | I understand the methods of historical enquiry. |
| I can answer and devise my own historically valid questions. |
| I know how our knowledge of the past is constructed from a range of sources. |
| Historical Communication | I can create my own structured accounts, including written narratives. |
| I can use key historical terms accurately e.g century, decade in structured, informed, written responses. |
| I make pertinent and valid comparisons between periods.  |
| I am beginning to use/apply mathematical skills when placing events in chronological order, using place value, negative nos etc. |
| Topical knowledge and use of vocabulary | I know who the Roundheads and the Cavaliers were and can discuss their points of view. |
| I can comment on why (or not) Oliver Cromwell was right to stop the monarchy. |
| I know why the execution of Charles 1 was a major event in British history. |
| I know why the monarchy was restored after a short while? |

**Topic: Solids, Liquids and Gases (Properties and changes of materials) (4 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Scientific Enquiry and applying knowledge in context | I can use my science experience to explore ideas and raise questions about the world. |
| I can talk about how different scientific ideas have developed over time |
| I can select and plan, with help, the most appropriate type of scientific enquiry I might use to answer questions and give justifications |
| I can recognise when and how to set up comparative and fair tests. I can explain which variables need to be controlled and why  |
| I can use and develop keys and other information records to identify, classify and describe living things and materials. I can identify patterns that might be found in natural environments |
| I can recognise which secondary sources will be most useful to research my ideas and begin to separate opinion from fact. |
| I can make decisions about what observations to make, what measurements to use and how long to make them for |
| I can spot causal relationships in my data and identify evidence that refutes or supports my ideas |
| I can choose the most appropriate equipment to make measurements with increasing precision and explain how to use it accurately. I can take repeat measurements where appropriate. |
| I can decide how to record data and results of increasing complexity from a choice of familiar approaches: scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. |
| I can identify scientific evidence that has been used to support of refute ideas or arguments. |
| I can use relevant scientific language and illustrations to discuss, communicate and justify my scientific ideas, use oral and written forms (such as displays and other presentations) to report conclusions, causal relationships and explanations of degree of trust in results. |
| I can use results to make predictions and identify when further observations, comparative and fair tests might be needed. |
| Topical knowledge and use of vocabulary | I know that materials have different uses depending on their properties and state (liquid, solid, gas). Properties include hardness, transparency, electrical and thermal conductivity and attraction to magnets.  |
| I can use understanding of properties to explain everyday uses of materials. For example, how bricks, wood, glass and metals are used in buildings. |
| I know some materials will dissolve in a liquid and form a solution while others are insoluble and form sediment. I can explain what dissolving means, giving examples. |
| I know that mixtures can be separated by filtering, sieving and evaporation. I can name equipment used for filtering and sieving. |
| I know some changes to materials such as dissolving, mixing and changes of state are reversible, but some changes such as burning wood, rusting and mixing vinegar with bicarbonate of soda result in the formation of new materials and these are not reversible. |
| I can use knowledge of liquids, gases and solids to suggest how materials can be recovered from solutions or mixtures by evaporation, filtering or sieving |
| I can describe some simple reversible and non-reversible changes to materials, giving examples. |
| **NC Science objectives** | 1. 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
2. use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
3. give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic
4. demonstrate that dissolving, mixing and changes of state are reversible changes
5. 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
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**Topic: Forces (4 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Scientific Enquiry and applying knowledge in context | I can use my science experience to explore ideas and raise questions about the world. |
| I can talk about how different scientific ideas have developed over time |
| I can select and plan, with help, the most appropriate type of scientific enquiry I might use to answer questions and give justifications |
| I can recognise when and how to set up comparative and fair tests. I can explain which variables need to be controlled and why  |
| I can use and develop keys and other information records to identify, classify and describe living things and materials. I can identify patterns that might be found in natural environments |
| I can recognise which secondary sources will be most useful to research my ideas and begin to separate opinion from fact. |
| I can make decisions about what observations to make, what measurements to use and how long to make them for |
| I can spot causal relationships in my data and identify evidence that refutes or supports my ideas |
| I can choose the most appropriate equipment to make measurements with increasing precision and explain how to use it accurately. I can take repeat measurements where appropriate. |
| I can decide how to record data and results of increasing complexity from a choice of familiar approaches: scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. |
| I can identify scientific evidence that has been used to support of refute ideas or arguments. |
| I can use relevant scientific language and illustrations to discuss, communicate and justify my scientific ideas, use oral and written forms (such as displays and other presentations) to report conclusions, causal relationships and explanations of degree of trust in results. |
| I can use results to make predictions and identify when further observations, comparative and fair tests might be needed. |
| Topical knowledge and use of vocabulary | I know that a force causes an object to start moving, stop moving, speed up, slow down or change direction.  |
| I know gravity is a force that acts at a distance. Everything is pulled to the Earth by gravity. This causes unsupported objects to fall. I can demonstrate the effect of gravity acting on an unsupported object. |
| I know air resistance, water resistance and friction are contact forces that act between moving surfaces. The object may be moving through the air or water or the air and water may be moving over a stationary object. I can give examples of friction, water resistance and air resistance |
| I can give examples of when it is beneficial to have high or low friction, water resistance and air resistance. |
| I know that a mechanism is a device that allows a small force to be increased to a larger force. The pay back is that it requires a greater movement. I know that the small force moves a long distance and the resulting large force moves a small distance, e.g. a crowbar or bottle top remover. Pulleys, levers and gears are all mechanisms, also known as simple machines. I can demonstrate how pulleys, levers and gears work. |
| **NC Science objectives** | 1. explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object
2. identify the effects of air resistance, water resistance and friction, that act between moving surfaces
3. recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect
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**Topic: The Mayans (4 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Historical Chronology | I am beginning to show a chronically secure knowledge and understanding of local, national and global history. |
| I can tell the story of events within and across the time periods I have studied.  |
| I can identify specific changes across different time periods.  |
| Historical Concepts | To begin to understand historical concepts cause and consequence, continuity, change, similarity, difference etc. |
| I understand change and continuity. |
| I am beginning to understand the complexity of people’s lives in the past and how some societies are very different due to changes or challenges at the time. |
| I can see trends over time. |
| I can see the relationship between different periods and the legacy. |
| Historical Interpretation | I can explain that the past can be represented or interpreted differently. |
| I am becoming aware of different views about people and events studied and can give some reasons why different versions of the past exist. |
| Historical Enquiry | I understand the methods of historical enquiry. |
| I can answer and devise my own historically valid questions. |
| I know how our knowledge of the past is constructed from a range of sources. |
| Historical Communication | I can create my own structured accounts, including written narratives. |
| I can use key historical terms accurately e.g century, decade in structured, informed, written responses. |
| I make pertinent and valid comparisons between periods.  |
| I am beginning to use/apply mathematical skills when placing events in chronological order, using place value, negative nos etc. |
| Locational knowledge and Place knowledge | I know some of the world’s countries, focusing on North and South America concentrating on environmental regions, key physical or human characteristics, countries, and major cities. |
| I can understand geographical similarities and differences through the study of human and physical geography of a region of the UK and a region within N. or S. America. (I also draw on the case study of Europe in lower KS2). |
| I can explain how aspects have changed over time. |
| Using globes, maps and plans | I can locate the world’s countries, using maps to focus on North & South America. |
| Human and physical geography: enquiry skills and communication | I can describe & under-stand key aspects of: physical geography, including rivers and mountains. |
| I can describe key aspects of human geography including types of settlement and land use, economic activity and the distribution of some natural resources of the countries studied. |
| I can communicate geog. information in a variety of ways, including through maps and writing at length |
| Topical knowledge and use of vocabulary | I know who the Mayans were and where they lived. |
| I know where the Mayans settled and the key physical features. |
| I know when the Mayans were a dominant culture. |
| I know some of the Mayan’s beliefs and how they shaped their way of life. |
| I know what evidence we have that the Mayans were an advanced civilization. |
| I know what we can learn from the way they built their pyramids. |
| I know some of the rituals carried out by the Mayan civilization. |
| I know why the Sun was such an important feature in Mayan life. |
| I know what caused the Mayan Civilization to disappear. |

**Topic: The Earth, Sun and Moon (Earth and Space) (6 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Scientific Enquiry and applying knowledge in context | I can use my science experience to explore ideas and raise questions about the world. |
| I can talk about how different scientific ideas have developed over time |
| I can select and plan, with help, the most appropriate type of scientific enquiry I might use to answer questions and give justifications |
| I can recognise when and how to set up comparative and fair tests. I can explain which variables need to be controlled and why  |
| I can recognise which secondary sources will be most useful to research my ideas and begin to separate opinion from fact. |
| I can make decisions about what observations to make, what measurements to use and how long to make them for |
| I can spot causal relationships in my data and identify evidence that refutes or supports my ideas |
| I can choose the most appropriate equipment to make measurements with increasing precision and explain how to use it accurately. I can take repeat measurements where appropriate. |
| I can decide how to record data and results of increasing complexity from a choice of familiar approaches: scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. |
| I can identify scientific evidence that has been used to support of refute ideas or arguments. |
| I can use relevant scientific language and illustrations to discuss, communicate and justify my scientific ideas, use oral and written forms (such as displays and other presentations) to report conclusions, causal relationships and explanations of degree of trust in results. |
| I can use results to make predictions and identify when further observations, comparative and fair tests might be needed. |
| Topical knowledge and use of vocabulary | I know that he Sun is a star. It is at the centre of our solar system. There are 8 planets and know some of their names. These travel around the Sun in fixed orbits. |
| I also know that: the Earth takes 365¼ days to complete its orbit around the Sun and that the Earth rotates (spins) on its axis every 24 hours; as Earth rotates half faces the Sun (here it is day) and half is facing away from the Sun (night); as the Earth rotates the Sun appears to move across the sky.  |
| I can show using diagrams the rotation of the Earth and how this causes day and night. |
| I can explain how the Moon orbits the Earth. It takes about 28 days to complete its orbit; the Sun, Earth and Moon are approximately spherical. I can show using diagrams the movement of the Earth and Moon and I can explain their movement. |
| I can create a voice over for a video clip or animation about the processes above. |
| **NC Science Objectives** | 1. describe the movement of the Earth, and other planets, relative to the Sun in the solar system
2. describe the movement of the Moon relative to the Earth
3. describe the Sun, Earth and Moon as approximately spherical bodies
4. use the idea of the Earth’s rotation to explain day and night and the apparent movement of the sun across the sky
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**Topic: The Anglo-Saxons and The Vikings (6 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Historical Chronology | I can demonstrate a some knowledge of chronological narrative, knowledge and understanding of Britain’s past and the wider world  |
| I am beginning to show a chronically secure knowledge and understanding of local, national and global history. |
| I can tell the story of events within and across the time periods I have studied.  |
| I can identify specific changes across different time periods.  |
| Historical Concepts | To begin to understand historical concepts cause and consequence, continuity, change, similarity, difference etc. |
| I understand change and continuity. |
| I can question change, cause, difference, similarity and significance in a wider context. |
| I am beginning to understand the complexity of people’s lives in the past and how some societies are very different due to changes or challenges at the time. |
| I can see trends over time. |
| I can see the relationship between different periods and the legacy. |
| Historical Interpretation | I can explain that the past can be represented or interpreted differently. |
| I am becoming aware of different views about people and events studied and can give some reasons why different versions of the past exist. |
| Historical Enquiry | I understand the methods of historical enquiry. |
| I can answer and devise my own historically valid questions. |
| I know how our knowledge of the past is constructed from a range of sources. |
| Historical Communication | I can create my own structured accounts, including written narratives. |
| I can use key historical terms accurately e.g century, decade in structured, informed, written responses. |
| I make pertinent and valid comparisons between periods.  |
| I am beginning to use/apply mathematical skills when placing events in chronological order, using place value, negative nos etc. |
| Locational knowledge and Place knowledge | I can explain how aspects have changed over time. |
| Human and physical geography: enquiry skills and communication | I know location of places of global significance, their defining physical & human characteristics and how they relate to one another |
| I can understand key aspects of: physical geography e.g. climate zones, biomes and vegetation belt. |
| I can give a few reasons for the impact of geographical influences/ effects on people place or themes studied. |
| Topical knowledge and use of vocabulary | I know who the Anglo-Saxons were and when they were in British history. |
| I know how they influenced our life today. |
| I know how the Anglo-Saxons bring law and order to Britain. |
| I can tell you what evidence we have today that the Anglo-Saxons were ever here in the first place. |
| I can discuss which Anglo-Saxon Christian symbols remain with us today. |
| I know who were the famous Anglo-Saxons, and why Alfred was so ‘great’. |
| I can use my knowledge of Anglo Saxon settlements to create a model Anglo-Saxon settlement. |
| I know when the Anglo Saxons ‘ended’ and the time of the Vikings in Britain ‘began’. |
| I know whether or not the Anglo Saxons liked the Vikings…and why! |
| I know which region of Britain we would you have come under during the Heptarchy. |
| I can tell you why the Vikings came to Britain and how they made the journey. |
| I can tell you about where and why the Vikings settled. |
| I can tell you what we Brits learned from the Vikings.  |
| I know what life was like for a 11 year old (boy/girl) Viking. |
| I can talk about how the Vikings lived when they came to Britain. |
| I can use my knowledge to create a Viking long boat from a range of materials. |
| I know what the Vikings ate and can recreate a Viking meal.  |

**Topic: Life Cycles…And The Ageing Process (Living things and their habitats; Animals including humans) (5 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Scientific Enquiry and applying knowledge in context | I can use my science experience to explore ideas and raise questions about the world. |
| I can talk about how different scientific ideas have developed over time |
| I can select and plan, with help, the most appropriate type of scientific enquiry I might use to answer questions and give justifications |
| I can recognise when and how to set up comparative and fair tests. I can explain which variables need to be controlled and why  |
| I can use and develop keys and other information records to identify, classify and describe living things and materials. I can identify patterns that might be found in natural environments |
| I can recognise which secondary sources will be most useful to research my ideas and begin to separate opinion from fact. |
| I can make decisions about what observations to make, what measurements to use and how long to make them for |
| I can spot causal relationships in my data and identify evidence that refutes or supports my ideas |
| I can choose the most appropriate equipment to make measurements with increasing precision and explain how to use it accurately. I can take repeat measurements where appropriate. |
| I can decide how to record data and results of increasing complexity from a choice of familiar approaches: scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. |
| I can identify scientific evidence that has been used to support of refute ideas or arguments. |
| I can use relevant scientific language and illustrations to discuss, communicate and justify my scientific ideas, use oral and written forms (such as displays and other presentations) to report conclusions, causal relationships and explanations of degree of trust in results. |
| I can use results to make predictions and identify when further observations, comparative and fair tests might be needed. |
| Topical knowledge and use of vocabulary | I know that as part of their life cycle plants and animals reproduce. Most animals reproduce sexually. This involves two parents where the sperm from the male fertilises the female egg.  |
| I know that animals including humans have offspring which grow into adults. In humans and some animals these offspring will be born live, such as babies or kittens, and then grow into adults. In other animals, such as chickens or snakes, there may be eggs laid that hatch to young which then grow to adults. Some young undergo a further change before becoming adults e.g. caterpillars to butterflies. This is called a metamorphosis.  |
| I can draw the life cycle of a range of animals identifying similarities and differences between the life cycles. |
| I can explain the difference between sexual and asexual reproduction and give examples of how plants reproduce in both ways. |
| I know plants reproduce both sexually and asexually. Bulbs, tubers, runners and plantlets are examples of asexual plant reproduction which involves only one parent. I know that gardeners may force plants to reproduce asexually by taking cuttings. |
| I know that sexual reproduction occurs through pollination, usually involving wind or insects. |
| I know that when babies are young they grow rapidly. They are very dependent on their parents and as they develop they learn many skills. I can explain how a baby changes physically as it grows and also what it is able to do. |
| I know that at puberty, a child’s body changes and develops primary and secondary sexual characteristics. This enables the adult to reproduce. I can explain the changes that takes place in boys and girls during puberty. ***(This will be taught alongside PSHE.)***  |
| **NC Science objectives** | 1. describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
2. describe the life process of reproduction in some plants and animals
3. describe the changes as humans develop to old age
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**Supplementary Topic: Additional Mapping Skills (1 week)**

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| **Area of Learning** | **Knowledge and Skills** |
| Map work skills | I can use Ordnance Survey maps at different scales. |
| I can draw a detailed sketch map using symbols and a key. |
| I can align a map with route. |
| Using globes, maps and plans | I can interpret a range of sources of geographical information, including maps, globes, aerial photographs and Geographical Information Systems (GIS). |
| I realise purpose, scale, symbols and style are related. |
| I can locate the world’s countries, using maps to focus on North & South America. |

**Year 6**

**Topic: I’m A Year 6 Pupil…Get Me Out Of Here! (6 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Locational knowledge and Place knowledge | I can name/ locate cities & counties of the UK |
| I know more about the geographical regions of the UK & their identifying physical and human characteristics, including more cities and detail of the key topographical features including naming some UK hills, mountains & rivers or types of coasts. |
| I can explain how aspects have changed over time. |
| I can identify the position/ significance of latitude, longitude, equator, N & S Hemisphere, Tropics of Cancer & Capricorn, Arctic & Antarctic Circle & time zones (incl. day & night). |
| Fieldwork | I use fieldwork to observe, measure & record human & physical features in the local area using a range of methods, including sketch maps, plans, graphs& digital technologies. |
| I can carry out a focused in depth study, looking at issues/changes in the area. |
| I can imagine how & why area may change in future. |
| Using globes, maps and plans | I can use a globe & maps & some OS symbols on maps to name and locate UK counties & cities |
| Map work skills | I know directions in neighbourhood. I can understand and use 6 figure grid references to interpret OS maps. |
| Human and physical geography enquiry skills and communication | I can describe processes that give rise to key physical & human geographical features of the world, how these are interdependent and how they bring about spatial variation/change over time.  |
| I can describe in detail types of settlement, land use, economic activity including trade links. |
| Historical Chronology | I show a chronically secure knowledge and understanding of local, national and global history. |
| Historical Concepts | I can see the relationship between different periods and the legacy or impacts for me and my identity. |
| To understand historical concepts cause and consequence, continuity, change, similarity, difference etc. |
| I understand change and continuity. |
| I devise questions about change, cause, difference, similarity and significance in a wider context. |
| I understand the complexity of people’s lives in the past and how some societies are very different due to changes or challenges at the time. |
| Historical Interpretation | To think critically, weigh evidence, sift arguments, develop perspective and judgement. |
| I can explain that the past can be represented or interpreted in many different ways. |
| I am aware of different views about people and events studied and can give some reasons why different versions of the past exist. |
| I can evaluate and carefully select from a range of historical sources to find relevant historical information. |
| I consider different viewpoints or think about possible bias or anachronism. |
| Historical Communication | I can create my own structured accounts, including written narratives and analyses. |
| I can use key historical terms accurately e.g century, decade in structured, informed, written responses or descriptions of the main features of past societies/periods. |
| Topical knowledge and use of vocabulary | I can show what a bird’s eye view of Urmston Primary looks like. |
| I can put together a map of the immediate area around our school. |
| I can explain why Urmstonexists and what would have brought people to live here in the first place…I can also explain why people live here today! |
| I can use an OS map, including compass point directions, to help someone plan a route between two local points. |
| If I got lost within 50 miles of my home, I know how I would go about finding my way home. |
| From the photographs I have taken of the immediate area, I can create a painting. |

**Topic: Light (6 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Scientific Enquiry and applying knowledge in context | I can use my science experience to explore ideas and raise relevant questions of different kinds. |
| I talk about how different scientific ideas have developed over time giving specific examples  |
| I select and plan the most appropriate type of scientific enquiry I might use to answer questions and give justifications |
| I recognise when and how to set up comparative and fair tests. I explain which variables need to be controlled and why |
| I use and develop more complex keys and other information records to identify, classify and describe living things and materials. Identify patterns that might be found in natural environments |
| I can recognise which secondary sources will be most useful to research my ideas; separate opinion from fact and give justifications for their reasoning |
| I make their own decisions about what observations to make, what measurements to use and how long to make them for |
| I can look for causal relationships in my data and identify evidence that refutes or supports my ideas |
| I choose the most appropriate equipment to make measurements with increasing precision and explain how to use it accurately. I can take repeat measurements where appropriate and give justifications for their choice. |
| I can decide how to record data and results of increasing complexity from a choice of familiar approaches: scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs, use multiple methods where appropriate. |
| I can identify scientific evidence that has been used to support or refute ideas or arguments, begin to form opinions about validity of these. |
| I use relevant scientific language and illustrations to discuss, communicate and justify my scientific ideas, use oral and written forms (such as displays and other presentations) to report conclusions, causal relationships and explanations of degree of trust in results. |
| I can use my results to make predictions and identify when further observations, comparative and fair tests might be needed; I can carry these out where appropriate.  |
| Topical knowledge and use of vocabulary | I know light appears to travel in straight lines and we see objects when light from them goes into our eyes. I know the light may come directly from light sources but for other objects some light must be reflected from the object into our eyes for the object to be seen. I can describe this with diagrams or models. |
| I know objects that block light (are not fully transparent) will cause shadows. Because light travels in straight lines the shape of the shadow will be the same as the outline shape of the object. |
| I can describe with diagrams or models as appropriate how light travels in straight lines past translucent or opaque objects to form a shadow of the same shape. |
| **NC Science objectives** | 1. recognise that light appears to travel in straight lines
2. 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
3. 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
4. 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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**Topic: WW2 (8 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Locational knowledge and Place knowledge | I can name/ locate cities & counties of the UK |
| I know more about the geographical regions of the UK & their identifying physical and human characteristics, including more cities and detail of the key topographical features including naming some UK hills, mountains & rivers or types of coasts |
| I can explain how aspects have changed over time. |
| Human and physical geography enquiry skills and communication | I can describe the distribution of natural resources including energy, food, minerals & water in the continents & countries I have studied. |
| Historical Chronology | I can demonstrate a coherent chronological narrative, knowledge and understanding of Britain’s past and the wider world. |
| I show a chronically secure knowledge and understanding of local, national and global history. |
| I can tell the story of events within and across the time periods I have studied. |
| I can identify specific changes across different time periods over a long arc of development. |
| I can describe connections, contrasts and trends over short and longer time periods. |
| Historical Concepts | To understand historical concepts cause and consequence, continuity, change, similarity, difference etc. |
| I understand change and continuity. |
| I devise questions about change, cause, difference, similarity and significance in a wider context. |
| I understand the complexity of people’s lives in the past and how some societies are very different due to changes or challenges at the time. |
| I can discuss trends over time. |
| I can see the relationship between different periods and the legacy or impacts for me and my identity. |
| Historical Interpretation | To think critically, weigh evidence, sift arguments, develop perspective and judgement. |
| I can explain that the past can be represented or interpreted in many different ways. |
| I am aware of different views about people and events studied and can give some reasons why different versions of the past exist. |
| I can evaluate and carefully select from a range of historical sources to find relevant historical information. |
| I consider different viewpoints or think about possible bias or anachronism. |
| Historical Enquiry | I understand the methods of historical enquiry, knowing how evidence is used rigorously to make historical claims. |
| I can answer and devise my own historically valid questions. |
| I make perceptive deductions about the reliability of sources. |
| I know how our knowledge of the past is constructed from a range of sources and can select and organise relevant historical information from a range of historical sources. |
| Historical Communication | I can create my own structured accounts, including written narratives and analyses. |
| I can use key historical terms accurately e.g century, decade in structured, informed, written responses or descriptions of the main features of past societies/periods. |
| I make pertinent and valid comparisons between periods.  |
| I confidently use/apply mathematical skills when placing events in chronological order, using place value, negative nos etc. |
| Topical knowledge and use of vocabulary | I can tell you why World War 2 started and what part Hitler had in it. |
| I can tell you some key dates of WW2.  |
| I know who Britain’s allies were and those of the Nazis. |
| I can tell you why the Jewish people suffered as a result of Hitler coming to power. |
| I can tell you about what concentration camps were and what it might have been like to be there. |
| I can tell you what we can learn about this period from the Anne Frank diaries. |
| I know what happened in Munich in 1938 why Britain felt betrayed by Hitler. |
| I know why the Battle of Britain was significant in World War 2. |
| I can tell you who Winston Churchill was and what part he played in the war. |
| I can discuss the key reasons why WW2 eventually came to an end and the people who made it happen. |

**Topic: The Circulatory System – Healthy Lifestyles (Animals including humans) (6 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Scientific Enquiry and applying knowledge in context | I can use my science experience to explore ideas and raise relevant questions of different kinds. |
| I talk about how different scientific ideas have developed over time giving specific examples  |
| I select and plan the most appropriate type of scientific enquiry I might use to answer questions and give justifications |
| I recognise when and how to set up comparative and fair tests. I explain which variables need to be controlled and why |
| I use and develop more complex keys and other information records to identify, classify and describe living things and materials. Identify patterns that might be found in natural environments |
| I can recognise which secondary sources will be most useful to research my ideas; separate opinion from fact and give justifications for their reasoning |
| I make their own decisions about what observations to make, what measurements to use and how long to make them for |
| I can look for causal relationships in my data and identify evidence that refutes or supports my ideas |
| I choose the most appropriate equipment to make measurements with increasing precision and explain how to use it accurately. I can take repeat measurements where appropriate and give justifications for their choice. |
| I can decide how to record data and results of increasing complexity from a choice of familiar approaches: scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs, use multiple methods where appropriate. |
| I can identify scientific evidence that has been used to support or refute ideas or arguments, begin to form opinions about validity of these. |
| I use relevant scientific language and illustrations to discuss, communicate and justify my scientific ideas, use oral and written forms (such as displays and other presentations) to report conclusions, causal relationships and explanations of degree of trust in results. |
| I can use my results to make predictions and identify when further observations, comparative and fair tests might be needed; I can carry these out where appropriate.  |
| Topical knowledge and use of vocabulary | I can describe the processes of the human circulatory system and how the heart, lungs, and blood vessels bring oxygen to the whole body, including the muscles, and disposes of carbon dioxide.  |
| I can draw a diagram of the circulatory system and label the parts and annotate it to show what the parts do. |
| I can produce a piece of writing that demonstrates the key knowledge above. |
| I know that diet, exercise, drugs and lifestyle have an impact on the way our bodies function. They can affect how well out heart and lungs work, how likely we are to suffer from conditions such as diabetes, how clearly we think, and generally how fit and well we feel.  |
| I know that some conditions are caused by deficiencies in our diet e.g. lack of vitamins. |
| **NC Science objectives** | 1. identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood
2. recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function
3. describe the ways in which nutrients and water are transported within animals, including humans
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**Topic: Ancient Greece (5 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Historical Chronology | I can demonstrate a coherent chronological narrative, knowledge and understanding of Britain’s past and the wider world. |
| I can identify specific changes across different time periods over a long arc of development. |
| I can tell the story of events within and across the time periods I have studied. |
| I can describe connections, contrasts and trends over short and longer time periods. |
| I show a chronically secure knowledge and understanding of local, national and global history. |
| Historical Concepts | To understand historical concepts cause and consequence, continuity, change, similarity, difference etc. |
| I devise questions about change, cause, difference, similarity and significance in a wider context. |
| I understand the complexity of people’s lives in the past and how some societies are very different due to changes or challenges at the time. |
| I can see the relationship between different periods and the legacy or impacts for me and my identity. |
| Historical Interpretation | To think critically, weigh evidence, sift arguments, develop perspective and judgement. |
| I can evaluate and carefully select from a range of historical sources to find relevant historical information. |
| I consider different viewpoints or think about possible bias or anachronism. |
| Historical Enquiry | I understand the methods of historical enquiry, knowing how evidence is used rigorously to make historical claims. |
| I make perceptive deductions about the reliability of sources. |
| I know how our knowledge of the past is constructed from a range of sources and can select and organise relevant historical information from a range of historical sources. |
| Historical Communication | I can create my own structured accounts, including written narratives and analyses. |
| I can use key historical terms accurately e.g century, decade in structured, informed, written responses or descriptions of the main features of past societies/periods. |
| I make pertinent and valid comparisons between periods.  |
| I confidently use/apply mathematical skills when placing events in chronological order, using place value, negative nos etc. |
| Using globes, maps & plans. | I can use maps, atlases, globes and digital/computer mapping to locate countries& describe features studied. |
| Topical knowledge and use of vocabulary | I know where Greece is and can tell you some of its geographical features. |
| I can discuss how Greece’s physical features, including its climate, differs from ours and how this impacts on its people. |
| I know when the Ancient Greeks were so prominent and can discuss what we have learned from them. |
| I know how a tourist to Greece today would be reminded of the power of the Ancient Greeks. |
| I know some of the Greek gods and how these shaped the way of life in Ancient Greece. |
| I can discuss what it was like to be an Olympian. |
| I know about cartography and how the Greeks developed it. |
| I can discuss what democracy is and what part the Greeks had in creating it. |
| I know some of the Greek philosophers and their theories. I can debate and argue for and against some of these.  |

**Topic: Electricity (5 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Scientific Enquiry and applying knowledge in context | I can use my science experience to explore ideas and raise relevant questions of different kinds. |
| I talk about how different scientific ideas have developed over time giving specific examples  |
| I select and plan the most appropriate type of scientific enquiry I might use to answer questions and give justifications |
| I recognise when and how to set up comparative and fair tests. I explain which variables need to be controlled and why |
| I use and develop more complex keys and other information records to identify, classify and describe living things and materials. Identify patterns that might be found in natural environments |
| I can recognise which secondary sources will be most useful to research my ideas; separate opinion from fact and give justifications for their reasoning |
| I make their own decisions about what observations to make, what measurements to use and how long to make them for |
| I can look for causal relationships in my data and identify evidence that refutes or supports my ideas |
| I choose the most appropriate equipment to make measurements with increasing precision and explain how to use it accurately. I can take repeat measurements where appropriate and give justifications for their choice. |
| I can decide how to record data and results of increasing complexity from a choice of familiar approaches: scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs, use multiple methods where appropriate. |
| I can identify scientific evidence that has been used to support or refute ideas or arguments, begin to form opinions about validity of these. |
| I use relevant scientific language and illustrations to discuss, communicate and justify my scientific ideas, use oral and written forms (such as displays and other presentations) to report conclusions, causal relationships and explanations of degree of trust in results. |
| I can use my results to make predictions and identify when further observations, comparative and fair tests might be needed; I can carry these out where appropriate.  |
| Topical knowledge and use of vocabulary | I know that: adding more cells to a complete circuit will make a bulb brighter, a motor spin faster or a buzzer make a louder sound. If you use a battery with a higher voltage, the same thing happens. Adding more bulbs to a circuit will make each bulb less bright. Using more motors or buzzers, each motor will spin more slowly and each buzzer will be quieter. Turning a switch off (open) breaks a circuit so the circuit is not complete and electricity cannot flow. Any bulbs, motors or buzzers will then turn off as well. |
| I can make electric circuits and demonstrate how variation in the working of particular components, such as the brightness of bulbs can be changed by increasing or decreasing the number of cells or using cells of different voltages. |
| I can draw circuit diagrams of a range of simple series circuits using recognised symbols. |
| I can use recognised circuit symbols to draw simple circuit diagrams. |
| **NC Science objectives** | 1. associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
2. 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
3. use recognised symbols when representing a simple circuit in a diagram
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**Topic: Variation and Classification (Living things and their habitats) (7 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Scientific Enquiry and applying knowledge in context | I can use my science experience to explore ideas and raise relevant questions of different kinds. |
| I talk about how different scientific ideas have developed over time giving specific examples  |
| I select and plan the most appropriate type of scientific enquiry I might use to answer questions and give justifications |
| I recognise when and how to set up comparative and fair tests. I explain which variables need to be controlled and why |
| I use and develop more complex keys and other information records to identify, classify and describe living things and materials. Identify patterns that might be found in natural environments |
| I can recognise which secondary sources will be most useful to research my ideas; separate opinion from fact and give justifications for their reasoning |
| I make their own decisions about what observations to make, what measurements to use and how long to make them for |
| I can look for causal relationships in my data and identify evidence that refutes or supports my ideas |
| I choose the most appropriate equipment to make measurements with increasing precision and explain how to use it accurately. I can take repeat measurements where appropriate and give justifications for their choice. |
| I can decide how to record data and results of increasing complexity from a choice of familiar approaches: scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs, use multiple methods where appropriate. |
| I can identify scientific evidence that has been used to support or refute ideas or arguments, begin to form opinions about validity of these. |
| I use relevant scientific language and illustrations to discuss, communicate and justify my scientific ideas, use oral and written forms (such as displays and other presentations) to report conclusions, causal relationships and explanations of degree of trust in results. |
| I can use my results to make predictions and identify when further observations, comparative and fair tests might be needed; I can carry these out where appropriate.  |
| Topical knowledge and use of vocabulary | I know that living things can be formally grouped according to characteristics. Plants and animals are two main groups but there are other livings things that do not fit into these groups e.g. micro-organisms such as bacteria and yeast, and toadstools and mushrooms.  |
| I know animals can be divided into two main groups – those that have backbones (vertebrates) and those that do not (invertebrates). Vertebrates can be divided into five small groups – fish, amphibians, reptiles, birds and mammals. Each group has common characteristics. Invertebrates can be divided into a number of groups including insects, spiders, snails and worms.  |
| I know that plants can make their own food whereas animals cannot. |
| I know plants can be divided broadly into two main groups – flowering plants and non-flowering plants – and I can give examples of these. |
| I can give examples of animals in the five vertebrate groups and some of the invertebrate groups. |
| I can compare the characteristics of animals in different groups. |
| I can give the key characteristics of the five vertebrate groups and some invertebrate groups |
| **NC Science objectives** | 1. 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
2. give reasons for classifying plants and animals based on specific characteristics
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**Topic: Evolution and Inheritance (5 weeks)**

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| **Area of Learning** | **Knowledge and Skills** |
| Scientific Enquiry and applying knowledge in context | I can use my science experience to explore ideas and raise relevant questions of different kinds. |
| I talk about how different scientific ideas have developed over time giving specific examples  |
| I select and plan the most appropriate type of scientific enquiry I might use to answer questions and give justifications |
| I recognise when and how to set up comparative and fair tests. I explain which variables need to be controlled and why |
| I use and develop more complex keys and other information records to identify, classify and describe living things and materials. Identify patterns that might be found in natural environments |
| I can recognise which secondary sources will be most useful to research my ideas; separate opinion from fact and give justifications for their reasoning |
| I make their own decisions about what observations to make, what measurements to use and how long to make them for |
| I can look for causal relationships in my data and identify evidence that refutes or supports my ideas |
| I choose the most appropriate equipment to make measurements with increasing precision and explain how to use it accurately. I can take repeat measurements where appropriate and give justifications for their choice. |
| I can decide how to record data and results of increasing complexity from a choice of familiar approaches: scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs, use multiple methods where appropriate. |
| I can identify scientific evidence that has been used to support or refute ideas or arguments, begin to form opinions about validity of these. |
| I use relevant scientific language and illustrations to discuss, communicate and justify my scientific ideas, use oral and written forms (such as displays and other presentations) to report conclusions, causal relationships and explanations of degree of trust in results. |
| I can use my results to make predictions and identify when further observations, comparative and fair tests might be needed; I can carry these out where appropriate.  |
| Topical knowledge and use of vocabulary | I know all living things have offspring of the same kind, as features in the offspring are inherited from the parents. Due to sexual reproduction, the offspring are not identical to their parents and vary from each other.  |
| I know plants and animals have characteristics that make them suited (adapted) to their environment. If the environment changes rapidly some variations of a species may not suit the new environment and will die. If the environment changes slowly, animals and plants with variations that are best suited survive in greater numbers to reproduce and pass their characteristics on to their young. Over time these inherited characteristics become more dominant within the population. Over a very long period of time these characteristics may be so different to how they were originally that a new species is created. This is evolution. I can explain this process. |
| I can give examples of how plants and animals are suited to an environment |
| I can give examples of how an animal or plant has evolved over time e.g. penguin, peppered moth |
| I know fossils give us evidence of what lived on the Earth millions of year ago and provide evidence to support the theory of evolution. More recently scientists such as Darwin and Wallace observed how living things adapt to different environments to become distinct varieties with their own characteristics. |
| I can give examples of living things that lived millions of years ago and the fossil evidence we have to support this. |
| I can give examples of fossil evidence that can be used to support the theory of evolution. |
| **NC Science objectives** | 1. recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago
2. recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents
3. identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution
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**Supplementary Topic: Additional Mapping Skills (1 week)**

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| **Area of Learning** | **Skills** |
| Use of basic geographical vocabulary | I confidently use and apply the vocabulary from other subjects such as Maths, English and Science when describing geographical features or processes. |
| I can provide greater detail of geographical regions of the UK & their identifying physical and human characteristics using specific geographical vocabulary. |
| Using globes, maps and plans | I can use a globe & maps & some OS symbols on maps to name and locate UK counties & cities |
| I can use 1:10.000 and 1:25:000 Ordnance Survey maps. |
| I can use maps, atlases, globes and digital/computer mapping to locate countries& describe features studied. |
| I can show the position and significance of latitude, longitude, Equator, N & S Hemisphere, Tropics of Cancer & Capricorn, Arctic & Antarctic Circle, and time zones (including day & night) using a globe. |
| Map work skills | I can use the eight points of a compass, symbols and key (including the use of Ordnance Survey maps) to show my knowledge of the United Kingdom and the wider world. |
| I know directions in neighbourhood. I can understand and use 6 figure grid references to interpret OS maps. |
| Human and physical geography enquiry skills and communication | I can describe the distribution of natural resources including energy, food, minerals & water in the continents & countries I have studied. |