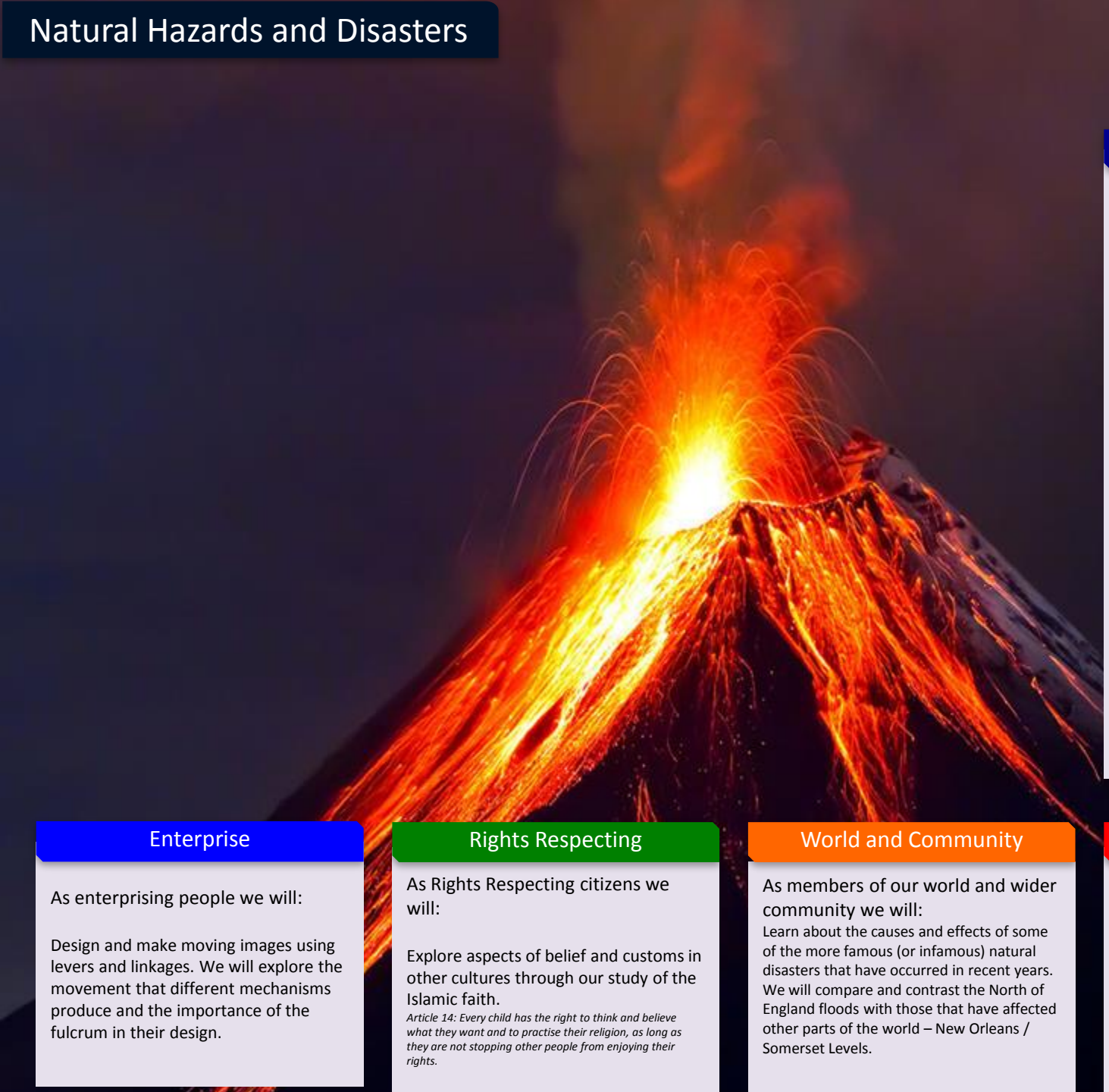
Natural Hazards and Disasters



Areas of learning

As **Historians** we will explore some of the most devastating natural disasters in our recent history, looking specifically at the impact of earthquakes, volcanoes and tsunamis on the human environment. We will compare and contrast the floods that affected the North of England in December 15 with those that have been experienced on the Somerset Levels and in other parts of the world.

As **Geographers** we will explore natural disasters and investigate the causes and consequences of them and explore where they are likely to occur across the globe. We will look specifically at volcanoes, tsunamis, tornadoes and earthquakes

As **Designers** we will design and make moving pictures using levers and linkages to explain the processes involved in particular natural disasters.

As **Artists** we will use mixed media to produce pictures inspired by the 'Great Wave of Kanagawa' to do with each natural disaster explored.

Subjects to be taught mutually exclusive to our main topic include…

Music – ukuleles
PE
French
Science

Enterprise

As enterprising people we will:

Design and make moving images using levers and linkages. We will explore the movement that different mechanisms produce and the importance of the fulcrum in their design.

Rights Respecting

As Rights Respecting citizens we will:

Explore aspects of belief and customs in other cultures through our study of the Islamic faith.

Article 14: Every child has the right to think and believe what they want and to practise their religion, as long as they are not stopping other people from enjoying their rights.

World and Community

As members of our world and wider community we will:

Learn about the causes and effects of some of the more famous (or infamous) natural disasters that have occurred in recent years. We will compare and contrast the North of England floods with those that have affected other parts of the world – New Orleans / Somerset Levels.

Spiritual and Moral

In our spiritual and moral development we will:

Consider how best the world community can help peoples hit by natural disasters

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Natural Hazards and Disasters

Languages

Pupils should be taught to:

-listen attentively to spoken language and show understanding by joining in and responding
-explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words
-engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help*
-speak in sentences, using familiar vocabulary, phrases and basic language structures
-develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases*
-present ideas and information orally to a range of audiences*
-read carefully and show understanding of words, phrases and simple writing
-appreciate stories, songs, poems and rhymes in the language
-broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary
-write phrases from memory, and adapt these to create new sentences, to express ideas clearly
-describe people, places, things and actions orally* and in writing
-understand basic grammar appropriate to the language being studied, including (where relevant): feminine, masculine and neuter forms and the conjugation of high-frequency verbs; key features and patterns of the language; how to apply these, for instance, to build sentences; and how these differ from or are similar to English.

Music

Pupils should be taught to:

-play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression
-improvise and compose music for a range of purposes using the inter-related dimensions of music
-listen with attention to detail and recall sounds with increasing aural memory use and understand staff and other musical notations
-appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians
-develop an understanding of the history of music.

PE

Pupils should be taught to:

-use running, jumping, throwing and catching in isolation and in combination
-play competitive games, modified where appropriate [for example, badminton, basketball, cricket, football, hockey, netball, rounders and tennis], and apply basic principles suitable for attacking and defending
-develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics]
perform dances using a range of movement patterns
-take part in outdoor and adventurous activity challenges both individually and within a team
-compare their performances with previous ones and demonstrate improvement to achieve their personal best.
-swim competently, confidently and proficiently over a distance of at least 25 metres
-use a range of strokes effectively [for example, front crawl, backstroke and breaststroke]
-perform safe self-rescue in different water-based situations.

History

Pupils should be taught about:

-changes in Britain from the Stone Age to the Iron Age
-the Roman Empire and its impact on Britain
-Britain's settlement by Anglo-Saxons and Scots
-the Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor
-a local history study
-a study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066
-the achievements of the earliest civilizations – an overview of where and when the first civilizations appeared and a depth study of one of the following: Ancient Sumer; The Indus Valley; Ancient Egypt; The Shang Dynasty of Ancient China
-Ancient Greece – a study of Greek life and achievements and their influence on the western world
-a non-European society that provides contrasts with British history – one study chosen from: early Islamic civilization, including a study of Baghdad c. AD 900; Mayan civilization c. AD 900; Benin (West Africa) c. AD 900-1300.

Design and Technology

Pupils should be taught to:

-use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
-generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
-select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
-select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities
-investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
-understand how key events and individuals in design and technology have helped shape the world
-apply their understanding of how to strengthen, stiffen and reinforce more complex structures
-understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
-understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
-apply their understanding of computing to program, monitor and control their products.
-understand and apply the principles of a healthy and varied diet
prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
-understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Geography

Pupils should be taught to:

-use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.
-understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region within North or South America
-describe and understand key aspects of:
physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle
human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water
-use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied
use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world
locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities
-name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time
-identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night)

Science

See following sheet

Computing

Pupils should be taught to:

-design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
-use sequence, selection, and repetition in programs; work with variables and various forms of input and output
-use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
-understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
-use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
-select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
-use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Art and Design

Pupils should be taught:

-to create sketch books to record their observations and use them to review and revisit ideas
-to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]
-about great artists, architects and designers in history

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Year 3

Pupils should be taught to:

-identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers
explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant
-investigate the way in which water is transported within plants
-explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.
-identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat
-identify that humans and some other animals have skeletons and muscles for support, protection and movement.
-compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
-describe in simple terms how fossils are formed when things that have lived are trapped within rock
recognise that soils are made from rocks and organic matter.
-recognise that they need light in order to see things and that dark is the absence of light
-notice that light is reflected from surfaces
-recognise that light from the sun can be dangerous and that there are ways to protect their eyes
-recognise that shadows are formed when the light from a light source is blocked by a solid object
-find patterns in the way that the size of shadows change.
-compare how things move on different surfaces
-notice that some forces need contact between two objects, but magnetic forces can act at a distance
-observe how magnets attract or repel each other and attract some materials and not others
-compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials
-describe magnets as having two poles
-predict whether two magnets will attract or repel each other, depending on which poles are facing.
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Year 4

Pupils should be taught to:

-recognise that living things can be grouped in a variety of ways
-explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
-recognise that environments can change and that this can sometimes pose dangers to living things.
-describe the simple functions of the basic parts of the digestive system in humans
-identify the different types of teeth in humans and their simple functions
-construct and interpret a variety of food chains, identifying producers, predators and prey.
-compare and group materials together, according to whether they are solids, liquids or gases
-observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)
-identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.
-identify how sounds are made, associating some of them with something vibrating
-recognise that vibrations from sounds travel through a medium to the ear
-find patterns between the pitch of a sound and features of the object that produced it
-find patterns between the volume of a sound and the strength of the vibrations that produced it
-recognise that sounds get fainter as the distance from the sound source increases.
-identify common appliances that run on electricity
-construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
-identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery
-recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit
-recognise some common conductors and insulators, and associate metals with being good conductors.

Year 5

Pupils should be taught to:

-describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
-describe the life process of reproduction in some plants and animals
-describe the changes as humans develop to old age.
-compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets
-know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
-use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
-give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic
-demonstrate that dissolving, mixing and changes of state are reversible changes
-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.
-describe the movement of the Earth, and other planets, relative to the Sun in the solar system
-describe the movement of the Moon relative to the Earth
-describe the Sun, Earth and Moon as approximately spherical bodies
-use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.
-explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object
-identify the effects of air resistance, water resistance and friction, that act between moving surfaces
-recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.

Year 6

Pupils should be taught to:

-identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood
-recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function
-describe the ways in which nutrients and water are transported within animals, including humans.
-recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago
-recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents
-identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.
-recognise that light appears to travel in straight lines
-use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye
-explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes
-use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.
-associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
-compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches
-use recognised symbols when representing a simple circuit in a diagram.

History

Aims	Milestone 1	Milestone 2	Basic Skills / Lesson Ideas
To investigate and interpret the past	• Observe or handle evidence to ask questions and find answers to questions about the past. • Ask questions such as: What was it like for people? What happened? How long ago? • Use artefacts, pictures, stories, online sources and databases to find out about the past. • Identify some of the different ways the past has been represented.	• Use evidence to ask questions and find answers to questions about the past. • Suggest suitable sources of evidence for historical enquiries. • Use more than one source of evidence for historical enquiry in order to gain a more accurate understanding of history. • Describe different accounts of a historical event, explaining some of the reasons why the accounts may differ. • Suggest causes and consequences of some of the main events and changes in history.	
To build an overview of world history	• Describe historical events. • Describe significant people from the past. • Recognise that there are reasons why people in the past acted as they did.	• Describe changes that have happened in the locality of the school throughout history. • Give a broad overview of life in Britain from ancient until medieval times. • Compare some of the times studied with those of other areas of interest around the world. • Describe the social, ethnic, cultural or religious diversity of past society. • Describe the characteristic features of the past, including ideas, beliefs, attitudes and experiences of men, women and children	

History

Aims	Milestone 1	Milestone 2	Basic Skills / Lesson Ideas
To understand chronology	• Place events and artefacts in order on a time line. • Label time lines with words or phrases such as: past, present, older and newer. • Recount changes that have occurred in their own lives. • Use dates where appropriate.	• Place events, artefacts and historical figures on a time line using dates. • Understand the concept of change over time, representing this, along with evidence, on a time line. • Use dates and terms to describe events.	

To communicate historically	• Use words and phrases such as: a long time ago, recently, when my parents/carers were children, years, decades and centuries to describe the passing of time.
	• Show an understanding of the concept of nation and a nation's history.
	• Show an understanding of concepts such as civilisation, monarchy, parliament, democracy, and war and peace
		• Use appropriate historical vocabulary to communicate, including:
		  • dates
		  • time period
		  • era
		  • change
		  • chronology.
		• Use literacy, numeracy and computing skills to a good standard in order to communicate information about the past.	

Geography

Aims	Milestone 1	Milestone 2	Basic Skills / Lesson Ideas
To investigate places	• Ask and answer geographical questions (such as: What is this place like? What or who will I see in this place? What do people do in this place?). • Identify the key features of a location in order to say whether it is a city, town, village, coastal or rural area. • Use world maps, atlases and globes to identify the United Kingdom and its countries, as well as the countries, continents and oceans studied. • Use simple fieldwork and observational skills to study the geography of the school and the key human and physical features of its surrounding environment. • Use aerial images and plan perspectives to recognise landmarks and basic physical features. • Name, locate and identify characteristics of the four countries and capital cities of the United Kingdom and its surrounding seas. • Name and locate the world's continents and oceans	• Ask and answer geographical questions about the physical and human characteristics of a location. • Explain own views about locations, giving reasons. • Use maps, atlases, globes and digital/computer mapping to locate countries and describe features. • Use fieldwork to observe and record the human and physical features in the local area using a range of methods including sketch maps, plans and graphs and digital technologies. • Use a range of resources to identify the key physical and human features of a location. • Name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, including hills, mountains, cities, rivers, key topographical features and land-use patterns; and understand how some of these aspects have changed over time. • Name and locate the countries of Europe and identify their main physical and human characteristics.	
To investigate patterns	• Understand geographical similarities and differences through studying the human and physical geography of a small area of the United Kingdom and of a contrasting non-European country. • Identify seasonal and daily weather patterns in the United Kingdom and the location of hot and cold areas of the world in relation to the Equator and the North and South Poles. • Identify land use around the school	• Name and locate the Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle and date time zones. Describe some of the characteristics of these geographical areas. • Describe geographical similarities and differences between countries. • Describe how the locality of the school has changed over time.	

Geography

Aims	Milestone 1	Milestone 2	Basic Skills / Lesson Ideas
To communicate geographically	• Use basic geographical vocabulary to refer to: • **key physical features**, including: beach, coast, forest, hill, mountain, ocean, river, soil, valley, vegetation and weather. • **key human features**, including: city, town, village, factory, farm, house, office and shop. • Use compass directions (north, south, east and west) and locational language (e.g. near and far) to describe the location of features and routes on a map. • Devise a simple map; and use and construct basic symbols in a key. Use simple grid references (A1, B1).	• Describe key aspects of: • **physical geography**, including: rivers, mountains, volcanoes and earthquakes and the water cycle. • **human geography**, including: settlements and land use. • Use the eight points of a compass, four-figure grid references, symbols and key to communicate knowledge of the United Kingdom and the wider world.	

Science

Aims	Milestone 1	Milestone 2	Basic Skills / Lesson Ideas
To work scientifically	• Ask simple questions. • Observe closely, using simple equipment. • Perform simple tests. • Identify and classify. • Use observations and ideas to suggest answers to questions. • Gather and record data to help in answering questions	• Ask relevant questions. • Set up simple practical enquiries and comparative and fair tests. • Make accurate measurements using standard units, using a range of equipment, e.g. thermometers and data loggers. • Gather, record, classify and present data in a variety of ways to help in answering questions. • Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables. • Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. • Use results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests. • Identify differences, similarities or changes related to simple, scientific ideas and processes. • Use straightforward, scientific evidence to answer questions or to support their findings.	
To understand plants	• Identify and name a variety of common plants, including garden plants, wild plants and trees and those classified as deciduous and evergreen. • Identify and describe the basic structure of a variety of common flowering plants, including roots, stem/trunk, leaves and flowers. • Observe and describe how seeds and bulbs grow into mature plants. • Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.	• Identify and describe the functions of different parts of flowering plants: roots, stem, leaves and flowers. • Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. • Investigate the way in which water is transported within plants. • Explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	

Science

Aims	Milestone 1	Milestone 2	Basic Skills / Lesson Ideas
To understand animals and humans	• Identify and name a variety of common animals that are birds, fish, amphibians, reptiles, mammals and invertebrates. • Identify and name a variety of common animals that are carnivores, herbivores and omnivores. • Describe and compare the structure of a variety of common animals (birds, fish, amphibians, reptiles, mammals and invertebrates, including pets). • Identify name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. • Notice that animals, including humans, have offspring which grow into adults. • Investigate 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	• Identify that animals, including humans, need the right types and amounts of nutrition, that they cannot make their own food and they get nutrition from what they eat. • Describe the ways in which nutrients and water are transported within animals, including humans. • Identify that humans and some animals have skeletons and muscles for support, protection and movement. • Describe the simple functions of the basic parts of the digestive system in humans. • Identify the different types of teeth in humans and their simple functions	
To investigate living things	• Explore and compare the differences between things that are living, that are dead and that have never been alive. • 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	• Identify and name a variety of living things (plants and animals) in the local and wider environment, using classification keys to assign them to groups. • Give reasons for classifying plants and animals based on specific characteristics. • Recognise that environments are constantly changing and that this can sometimes pose dangers to specific habitats	

Science

Aims	Milestone 1	Milestone 2	Basic Skills / Lesson Ideas
To understand movement, forces and magnets	• Notice and describe how things move, using simple comparisons such as faster and slower. • Compare how different things move. • Observe the apparent movement of the Sun during the day. • Observe changes across the four seasons. • Observe and describe weather associated with the seasons and how day length varies.	• Notice that some forces need contact between two objects and some forces act at a distance. • Observe how magnets attract or repel each other and attract some materials and not others. • Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet and identify some magnetic materials.	
To understand electrical circuits	• Identify common appliances that run on electricity. • Construct a simple series electrical circuit.	• Identify whether or not a lamp will light in a simple series circuit based on whether or not the lamp is part of a complete loop with a battery. • Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. • Recognise some common conductors and insulators and associate metals with being good conductors.	

Science

Aims	Milestone 1	Milestone 2	Basic Skills / Lesson Ideas
To understand evolution and inheritance	• Identify how humans resemble their parents in many features.	• Identify how plants and animals, including humans, resemble their parents in many features. • Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. • Identify how animals and plants are suited to and adapt to their environment in different ways.	
To investigate materials	• Distinguish between an object and the material from which it is made. • Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock. • Describe the simple physical properties of a variety of everyday materials. • Compare and group together a variety of everyday materials on the basis of their simple physical properties. • Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. • Identify and compare the uses of a variety of everyday materials, including wood, metal, plastic, glass, brick/rock, and paper/cardboard.	• Compare and group together different kinds of rocks on the basis of their simple, physical properties. • Relate the simple physical properties of some rocks to their formation (igneous or sedimentary). • Describe in simple terms how fossils are formed when things that have lived are trapped within sedimentary rock. • Compare and group materials together, according to whether they are solids, liquids or gases. • Observe that some materials change state when they are heated or cooled, and measure the temperature at which this happens in degrees Celsius (°C), building on their teaching in mathematics. • Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	

Science

Aims	Milestone 1	Milestone 2	Basic Skills / Lesson Ideas
To understand light and seeing	• Observe and name a variety of sources of light, including electric lights, flames and the Sun, explaining that we see things because light travels from them to our eyes.	• Notice that light is reflected from surfaces. • Associate shadows with a light source being blocked by something; find patterns that determine the size of shadows.	
To investigate sound and hearing	• Observe and name a variety of sources of sound, noticing that we hear with our ears	• Identify how sounds are made, associating some of them with something vibrating. • Recognise that sounds get fainter as the distance from the sound's source increases.	

Science

Aims	Milestone 1	Milestone 2	Basic Skills / Lesson Ideas
To understand the Earth's movement in space	• Observe the apparent movement of the Sun during the day. • Observe changes across the four seasons. • Observe and describe weather associated with the seasons and how day length varies. .	• Describe the movement of the Earth relative to the Sun in the solar system. • Describe the movement of the Moon relative to the Earth.	

Computing

Aims	Milestone 1	Milestone 2	Basic Skills/Lesson Ideas
To code (using Scratch)	• Control motion by specifying the number of steps to travel, direction and turn. • Add text strings, show and hide objects and change the features of an object. • Select sounds and control when they are heard, their duration and volume. • Control when drawings appear and set the pen colour, size and shape. • Specify user inputs (such as clicks) to control events. • Specify the nature of events (such as a single event or a loop). • Create conditions for actions by waiting for a user input (such as responses to questions like: What is your name?).	• Use specified screen coordinates to control movement. • Set the appearance of objects and create sequences of changes. • Create and edit sounds. Control when they are heard, their volume, duration and rests. • Control the shade of pens • Specify conditions to trigger events. • Use IF THEN conditions to control events or objects • Create conditions for actions by sensing proximity or by waiting for a user input (such as proximity to a specified colour or a line or responses to questions). • Use variables to store a value. • Use the functions define, set, change, show and hide to control the variables • Use the Reporter operators () + () () - () () * () () / () to perform calculations.	
To connect	• Participate in class social media accounts. • Understand online risks and the age rules for sites.	• Contribute to blogs that are moderated by teachers. • Give examples of the risks posed by online communications. • Understand the term 'copyright'. • Understand that comments made online that are hurtful or offensive are the same as bullying. • Understand how online services work.	

Computing

Aims	Milestone 1	Milestone 2	Basic Skills/Lesson Ideas
To communicate	• Use a range of applications and devices in order to communicate ideas, work and messages.	• Use some of the advanced features of applications and devices in order to communicate ideas, work or messages professionally.	
To collect	• Use simple databases to record information in areas across the curriculum.	• Devise and construct databases using applications designed for this purpose in areas across the curriculum.	

PSHE and Rights Respecting

Aims	Bronze	Silver	Basic Skills/Lesson Ideas
To try new things	• Try new things with the help of others. • Talk about some things of personal interest. • Join in with familiar activities. • Concentrate on things of interest.	• Try new things when encouraged. • Enjoy new experiences. • Join clubs or groups. • Talk about new experiences with others	
To work hard	• Work hard with the help of others. • Enjoy the results of effort in areas of interest. • Take encouragement from others in areas of interest	• Enjoy working hard in a range of activities. • Reflect on how effort leads to success. • Begin to encourage others to work hard	
To concentrate	• Give attention to areas of interest. • Begin to 'tune out' distractions. • Begin to show signs of concentration. • Begin to seek help when needed	• Focus on activities. • 'Tune out' some distractions. • Search for methods to help with concentration. • Develop areas of deep interest	
To push themselves	• Express doubts and fears. • Explain feelings in uncomfortable situations. • Begin to push past fears (with encouragement). • Listen to people who try to help. • Begin to try to do something more than once	• Begin to understand why some activities feel uncomfortable. • Show a willingness to overcome fears. • Push past fears and reflect upon the emotions felt afterwards. • Begin to take encouragement and advice from others. • Keep trying after a first attempt.	

PSHE and Rights Respecting

Aims	Bronze	Silver	Basic Skills/Lesson Ideas
To imagine	• With help, develop ideas. • Respond to the ideas of others'. • Respond to questions about ideas. • Act on some ideas	• Begin to enjoy having new ideas. • Show some enthusiasm for the ideas of others. • Ask some questions in order to develop ideas. • Show enjoyment in trying out some ideas	
To improve	• Share with others likes about own efforts. • Choose one thing to improve (with help). • Make a small improvement (with help).	• Share with others a number of positive features of own efforts. • Identify a few areas for improvement. • Attempt to make improvements.	
To understand others	• Show an awareness of someone who is talking. • Show an understanding that ones own behaviour affects other people. • Listen to other people's point of view	• Listen to others, showing attention. • Think of the effect of behaviour on others before acting. • Describe the points of view of others.	
To not give up	• Try again with the help of others. • Try to carry on even if a failure causes upset. • Keep going in activities of interest. • Try to think of oneself as lucky.	• Find alternative ways if the first attempt does not work. • Bounce back after a disappointment or failure. • Show the ability to stick at an activity (or a club or interest). • See oneself as lucky.	

Art and Design

Aims	Milestone 1	Milestone 2	Basic Skills/Lesson Ideas
To develop ideas	• Respond to ideas and starting points. • Explore ideas and collect visual information. • Explore different methods and materials as ideas develop	• Develop ideas from starting points throughout the curriculum. • Collect information, sketches and resources. • Adapt and refine ideas as they progress. • Explore ideas in a variety of ways. • Comment on artworks using visual language	
To take inspiration from the greats (classic and modern)	• Describe the work of notable artists, artisans and designers. • Use some of the ideas of artists studied to create pieces.	• Replicate some of the techniques used by notable artists, artisans and designers. • Create original pieces that are influenced by studies of others.	

Art and Design

Aims	Milestone 1	Milestone 2	Basic Skills/Lesson Ideas
Collage: To master techniques	• Use a combination of materials that are cut, torn and glued. • Sort and arrange materials. • Mix materials to create texture	• Select and arrange materials for a striking effect. • Ensure work is precise. • Use coiling, overlapping, tessellation, mosaic and montage	
Painting: To master techniques	• Use thick and thin brushes. • Mix primary colours to make secondary. • Add white to colours to make tints and black to colours to make tones. • Create colour wheels.	• Use a number of brush techniques using thick and thin brushes to produce shapes, textures, patterns and lines. • Mix colours effectively. • Use watercolour paint to produce washes for backgrounds then add detail. • Experiment with creating mood with colour	
Sculpture: To master techniques	• Use a combination of shapes. • Include lines and texture. • Use rolled up paper, straws, paper, card and clay as materials. • Use techniques such as rolling, cutting, moulding and carving.	• Create and combine shapes to create recognisable forms (e.g. shapes made from nets or solid materials). • Include texture that conveys feelings, expression or movement. • Use clay and other mouldable materials. • Add materials to provide interesting detail.	
Digital Media To master techniques	• Use a wide range of tools to create different textures, lines, tones, colours and shapes	• Create images, video and sound recordings and explain why they were created.	

Art and Design

Aims	Milestone 1	Milestone 2	Basic Skills/Lesson Ideas
Drawing: To master techniques	• Draw lines of different sizes and thickness. • Colour (own work) neatly following the lines. • Show pattern and texture by adding dots and lines. • Show different tones by using coloured pencils.	• Use different hardnesses of pencils to show line, tone and texture. • Annotate sketches to explain and elaborate ideas. • Sketch lightly (no need to use a rubber to correct mistakes). • Use shading to show light and shadow. • Use hatching and cross hatching to show tone and texture.	
Textiles To master techniques	• Use weaving to create a pattern. • Join materials using glue and/or a stitch. • Use plaiting. • Use dip dye techniques	• Shape and stitch materials. • Use basic cross stitch and back stitch. • Colour fabric. • Create weavings. • Quilt, pad and gather fabric	
Print: To master techniques	• Use repeating or overlapping shapes. • Mimic print from the environment (e.g. wallpapers). • Use objects to create prints (e.g. fruit, vegetables or sponges). • Press, roll, rub and stamp to make prints.	• Use layers of two or more colours. • Replicate patterns observed in natural or built environments. • Make printing blocks (e.g. from coiled string glued to a block). • Make precise repeating patterns.	
Electricals and electronics: To master practical skills			

Design and Technology

Aims	Milestone 1	Milestone 2	Basic Skills/Lesson Ideas
Food: To master practical skills	• Cut, peel or grate ingredients safely and hygienically. • Measure or weigh using measuring cups or electronic scales. • Assemble or cook ingredients.	• Prepare ingredients hygienically using appropriate utensils. • Measure ingredients to the nearest gram accurately. • Follow a recipe. • Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking).	
Textiles To master practical skills	• Shape textiles using templates. • Join textiles using running stitch. • Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing).	• Understand the need for a seam allowance. • Join textiles with appropriate stitching. • Select the most appropriate techniques to decorate textiles	
Materials: To master practical skills	• Cut materials safely using tools provided. • Measure and mark out to the nearest centimetre. • Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). • Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).	• Cut materials accurately and safely by selecting appropriate tools. • Measure and mark out to the nearest millimetre. • Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs). • Select appropriate joining techniques	
Electricals and electronics: To master practical skills	• Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage).	• Create series and parallel circuits	

Design and Technology

Aims	Milestone 1	Milestone 2	Basic Skills/Lesson Ideas
Computing: To master practical skills	• Model designs using software	• Control and monitor models using software designed for this purpose.	
Mechanics: To master practical skills	• Create products using levers, wheels and winding mechanisms	• Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears).	
Construction: To master practical skills	• Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products	• Choose suitable techniques to construct products or to repair items. • Strengthen materials using suitable techniques.	
To design, make, evaluate and improve	• Design products that have a clear purpose and an intended user. • Make products, refining the design as work progresses. • Use software to design	• Design with purpose by identifying opportunities to design. • Make products by working efficiently (such as by carefully selecting materials). • Refine work and techniques as work progresses, continually evaluating the product design. • Use software to design and represent product designs.	

Design and Technology

Aims	Milestone 1	Milestone 2	Basic Skills/Lesson Ideas
To take inspiration from design throughout history	• Explore objects and designs to identify likes and dislikes of the designs. • Suggest improvements to existing designs. • Explore how products have been created.	• Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs. • Improve upon existing designs, giving reasons for choices. • Disassemble products to understand how they work	
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PE

Aims	Milestone 1	Milestone 2	Basic Skills/Lesson Ideas
Games: To develop practical skills in order to participate, compete and lead a healthy lifestyle	• Use the terms 'opponent' and 'team-mate'. • Use rolling, hitting, running, jumping, catching and kicking skills in combination. • Develop tactics. • Lead others when appropriate	• Throw and catch with control and accuracy. • Strike a ball and field with control. • Choose appropriate tactics to cause problems for the opposition. • Follow the rules of the game and play fairly. • Maintain possession of a ball (with, e.g. feet, a hockey stick or hands). • Pass to team mates at appropriate times. • Lead others and act as a respectful team member	
Dance: To develop practical skills in order to participate, compete and lead a healthy lifestyle	• Copy and remember moves and positions. • Move with careful control and coordination. • Link two or more actions to perform a sequence. • Choose movements to communicate a mood, feeling or idea	• Plan, perform and repeat sequences. • Move in a clear, fluent and expressive manner. • Refine movements into sequences. • Create dances and movements that convey a definite idea. • Change speed and levels within a performance. • Develop physical strength and suppleness by practising moves and stretching	

PE

Aims	Milestone 1	Milestone 2	Basic Skills/Lesson Ideas
Gymnastics To develop practical skills in order to participate, compete and lead a healthy lifestyle	• Copy and remember actions. • Move with some control and awareness of space. • Link two or more actions to make a sequence. • Show contrasts (such as small/tall, straight/curved and wide/narrow). • Travel by rolling forwards, backwards and sideways. • Hold a position whilst balancing on different points of the body. • Climb safely on equipment. • Stretch and curl to develop flexibility. • Jump in a variety of ways and land with increasing control and balance	• Plan, perform and repeat sequences. • Move in a clear, fluent and expressive manner. • Refine movements into sequences. • Show changes of direction, speed and level during a performance. • Travel in a variety of ways, including flight, by transferring weight to generate power in movements. • Show a kinesthetic sense in order to improve the placement and alignment of body parts (e.g. in balances experiment to find out how to get the centre of gravity successfully over base and organise body parts to create an interesting body shape). • Swing and hang from equipment safely (using hands).	
Athletics: To develop practical skills in order to participate, compete and lead a healthy lifestyle	• Use rolling, hitting, running, jumping, catching and kicking skills in combination. • Develop tactics when competing with others	• Sprint over a short distance up to 60 metres. • Run over a longer distance, conserving energy in order to sustain performance. • Use a range of throwing techniques (such as under arm, over arm). • Throw with accuracy to hit a target or cover a distance. • Jump in a number of ways, using a run up where appropriate. • Compete with others and aim to improve personal best performances	

PE: Swimming

Aims	Milestone 1	Milestone 2	Basic Skills/Lesson Ideas
Swimming: To develop practical skills in order to participate, compete and lead a healthy lifestyle	• Swim unaided up to 25 metres. • Use one basic stroke, breathing correctly. • Control leg movements.	• Swim between 25 and 50 metres unaided. • Use more than one stroke and coordinate breathing as appropriate for the stroke being used. • Coordinate leg and arm movements. • Swim at the surface and below the water	
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Music

Aims	Milestone 1	Milestone 2	Basic Skills/Lesson Ideas
To perform	• Take part in singing, accurately following the melody. • Follow instructions on how and when to sing or play an instrument. • Make and control long and short sounds, using voice and instruments. • Imitate changes in pitch.	• Sing from memory with accurate pitch. • Sing in tune. • Maintain a simple part within a group. • Pronounce words within a song clearly. • Show control of voice. • Play notes on an instrument with care so that they are clear. • Perform with control and awareness of others	
To compose	• Create a sequence of long and short sounds. • Clap rhythms. • Create a mixture of different sounds (long and short, loud and quiet, high and low). • Choose sounds to create an effect. • Sequence sounds to create an overall effect. • Create short, musical patterns. • Create short, rhythmic phrases.	• Compose and perform melodic songs. • Use sound to create abstract effects. • Create repeated patterns with a range of instruments. • Create accompaniments for tunes. • Use drones as accompaniments. • Choose, order, combine and control sounds to create an effect. • Use digital technologies to compose pieces of music	
To transcribe	• Use symbols to represent a composition and use them to help with a performance	• Devise non-standard symbols to indicate when to play and rest. • Recognise the notes EGBDF and FACE on the musical stave. • Recognise the symbols for a minim, crotchet and semibreve and say how many beats they represent	
To describe music	• Identify the beat of a tune. • Recognise changes in timbre, dynamics and pitch	• Use the terms: duration, timbre, pitch, beat, tempo, texture and use of silence to describe music. • Evaluate music using musical vocabulary to identify areas of likes and dislikes. • Understand layers of sounds and discuss their effect on mood and feelings.	

Languages

Aims	Milestone 1	Milestone 2	Basic Skills/Lesson Ideas
To read fluently	• Read out loud everyday words and phrases. • Use phonic (or logographic in Mandarin) knowledge to read words. • Read and understand short written phrases. • Read out loud familiar words and phrases. • Use books or glossaries to find out the meanings of new words	• Read and understand the main points in short written texts. • Read short texts independently. • Use a translation dictionary or glossary to look up new words.	
To write imaginatively	• Write or copy everyday words correctly. • Label items and choose appropriate words to complete short sentences. • Write one or two short sentences. • Write short phrases used in everyday conversations correctly.	• Write a few short sentences using familiar expressions. • Express personal experiences and responses. • Write short phrases from memory with spelling that is readily understandable	
To speak confidently	• Understand a range of spoken phrases. • Understand standard language (sometimes asking for words or phrases to be repeated). • Answer simple questions and give basic information. • Give responses to questions about everyday events. • Pronounce words showing a knowledge of sound (or pitch in Mandarin) patterns.	• Understand the main points from spoken passages. • Ask others to repeat words or phrases if necessary. • Ask and answer simple questions and talk about interests. • Take part in discussions and tasks. • Demonstrate a growing vocabulary.	
To understand the culture of the countries in which the language is spoken	• Identify countries and communities where the language is spoken. • Demonstrate some knowledge and understanding of the customs and features of the countries or communities where the language is spoken. • Show awareness of the social conventions when speaking to someone.	• Describe with some interesting details some aspects of countries or communities where the language is spoken. • Make comparisons between life in countries or communities where the language is spoken and this country.	