

Christian Vision and Values

‘Through God’s love we learn and flourish together’ Corinthians 16:14

Thankfulness Perseverance Compassion Trust Courage Respect

Curriculum Drivers in Science

World Aware: In Science lessons, children explore and celebrate research and developments that take place in many different cultures, both past and present. They learn about and observe the changing seasons around them as well as learn about human impact on the planet and how it has changed over time.

Belonging: Our Science curriculum aims to allow all children to feel a sense of belonging in their world and environment. Through an understanding of the world around them, they will learn to respect their environment and to take care of the wonders of their world. They will learn through discovery and group work that allows them to feel part of a team.

Possibilities: In Science, children will learn about the many possibilities of the world through Scientific enquiry and asking questions. They will explore STEM careers and challenge science stereotypes.

Well-being: In Science, children are taught the skills of support, encouragement and perseverance as they work both individually and as part of a team. They will be taught about their health and nutrition, smoking, drugs and making good choices.

Spirituality: In Science, there are many opportunities for ‘wow moments’ when discovering new things and through practical experiences. These are moments that children remember and help to shape their understanding of the world. The time that is spent outside in the natural environment also allows for children to take in the ‘now moments’.

What we teach and why: Intent

Design, content and sequencing – The Science curriculum is made up of both disciplinary and substantive knowledge. Substantive knowledge is the knowledge produced by the academic subjects and disciplinary knowledge is the knowledge of the methods and apparatus used including data analysis to answer questions. The curriculum document details the disciplinary knowledge taught across the school and the curriculum map (LTP) outlines when each unit of substantive knowledge should be taught. The Science Curriculum is organised into units of

substantive learning as outlined in the national curriculum programme of study. The units of learning are then organised into a rolling programme to accommodate the mixed year group classes at our schools so that new learning is always building upon prior knowledge.

The planning is linked to the school's drivers (world aware, possibilities, well-being, spirituality and belonging) which always inform teacher's planning. The planning builds very much on what was taught previously in each unit and details how to connect retrieval from prior learning in order to create meaningful and deeper links for children's understanding.

The curriculum has been designed the way it has because it is fundamentally important that children are taught progressive and sequential skills which are built on whilst forming a solid understanding of the world around them. Children are taught the key knowledge that they need to move on to the next step in their learning as well as the skills that they need to help them to complete scientific enquiries through the working scientifically objectives.

Children are excited to share their developing understanding of science and the role it plays in their lives today. We aim to build children's science capital by showing them the broad possibilities that science can offer them and its relevance in everyday life.

How it's taught: Implementation

Throughout the school, there is an emphasis on children learning the knowledge content of the science curriculum through practical activities and exploration allowing the skills content to be embedded.

At the beginning of a unit the class teacher will elicit the children's current understanding of the unit, either from previous teaching or outside school experiences, acknowledging that not all children will be at the same starting point, and aim to build learning on this. For those children that do not have prior knowledge or experience, the class teacher will aim to give the class a shared experience that they can hook their learning onto. This may come in the form of a story, 'big question' or problem to be solved.

In KS1, the children will have chance to explore these concepts through their learning environment. The class teacher will set up opportunities for children to explore the unit through both child-initiated and adult led learning. In both KS1 and KS2, the children will have opportunities to carry out practical activities and learn through exploration. Practical activities form a key part of learning alongside theory based ones.

The children learn the substantive knowledge through 6 key areas:

- Plants
- Animals, including humans
- Living Things and their habitats
- Materials
- Energy
- Forces, Earth and space

The disciplinary knowledge (working scientifically skills) is broken down into the following strands:

- Posing questions
- Planning
- Predicting
- Observing

- Measuring
- Recoding
- Grouping and classifying
- Graphing
- Analysing and drawing conclusions
- Evaluating

At the end of the unit the class teacher will assess the children against the National Curriculum objectives using assessment questions. They will then fill in the assessment grid to show whether the children are developing, secure or exceeding in their knowledge. This information can then be passed on to the next class teacher to aid the in planning to build on previous knowledge. Children's work is documented either in the child's individual computing folder, saved onto the school network or shared via Seesaw.

What we see as a result: Impact

Progress and outcomes: Co-ordinator observations monitor outcomes and regular reflection on our planning and children's work help to ensure continuity of progression throughout the school.

Responses to work and reflections in books: Pupils regularly engage well with key questions and can reflect on their learning at the end of each lesson with the learning outcome in mind. They learn to be confident in their responses and not afraid to pose more questions as a result of their learning.

Child perception and opinion: Many of our pupils attest to enjoying this subject and the knowledge and skills based and open-ended nature of the lessons. Their pre-knowledge and retrieval for each topic is celebrated as is their new learning.

Monitoring and Evaluation: Drop-in observations, book looks and interviews with children.

By the end of year 6 children at Aylburton and English Bicknor C of E Primary Schools should demonstrate the following essential characteristics:

- *The ability to articulate their understanding of key scientific concepts*
- *Demonstrate and understanding of the nature, processes and methods of science*
- *Are equipped with the knowledge required to understand the uses and implications of science in their everyday lives*

Science in the Early Years Foundation Stage is covered in the '**Understanding the World**' area of the EYFS Curriculum. It is introduced indirectly through activities that encourage every child to explore, problem solve, observe, predict, think, make decisions and talk about the world around them. During their first years at school our children will explore creatures, people, plants and objects in their natural environments.

	EYFS	Year 1 & 2	Year 3 & 4	Year 5 & 6
<u>Progression of Knowledge</u>				
Plants	To know the name for the basic plant parts (leaves, flowers, roots, stem) To know the names of some familiar flowering plants	To know a variety of common plants, and how they differ. To know that deciduous trees lose their leaves seasonally, but evergreen trees do not. To know the basic structure (including leaves, flowers (blossom), fruit, roots, bulb, seed, trunk, branches, stem) of a variety of common plants, including flowering plants and trees.	To understand the functions of the basic parts of a plant and the relationship between structure and function. To know that water is transported within a plant from the root, through the stem, to the leaves.	
	To know that plants are alive To know that seeds need water to grow	To begin to understand how plants grow and change over time. To know that seeds and bulbs grow into seedlings by producing roots and shoots. To know that seedlings grow into mature plants by developing parts such as roots, stems, leaves and flowers. To know that seeds need water and warmth to germinate. To know that plants need water, light and a suitable temperature for growth and health.	To know that plants need water, light, air, nutrients and a suitable temperature for growth and health. To understand that the needs for growth and health vary from plant to plant.	
	To know that seeds grow into plants if taken care of		To know the life cycle of a plant from seed to mature plant. To know that flowers are the reproductive organ of a plant. To know that the process of pollination is the transfer of pollen to the female (part of the) flower.	

Aylburton and English Bicknor C of E Primary Schools Science Curriculum

			To know that the process of seed formation is the growth of a seed after pollination. To know some different methods of seed dispersal and the benefits of each.	
Animals, including humans	To know the names of familiar animals (e.g. farm animals, pets and animals seen in storybooks.)	To know a variety of common animals (including fish, amphibians, reptiles, birds and mammals). To understand how living things change, and that animals have offspring that grow into adults. To know which offspring comes from which parent animal. To know the stages in some animal life cycles.		To describe the human life cycle, including the stages of growth and development (baby, toddler, child, teenager, adult, elderly). To describe changes that occur during puberty (in boys and girls). To know that gestation periods vary across mammals.
	To know the main body parts of common animals (number of legs, wings, fur, tail). To know that animals, including humans use their senses to explore the world.	To know the main body parts of common animals (arms, legs, wings, tails, fins, head, trunk, horns/tusks, shell) To know key parts of the human body (including head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth). To know the five main senses: sight, smell, hearing, taste and touch. To know that the skin is used for touch, the tongue is used for taste, the nose is used for smell, the eyes are used for sight and the ears are used for hearing	To know that animals can be grouped based on the presence of a skeleton. To know that the skeleton in humans and some animals is used for movement, protection and support. To know that the muscular system in humans and some animals works with the skeleton for movement. To know the main bones in the body To know the main organs of the human digestive system (mouth, teeth, tongue, oesophagus, stomach, small and large intestines) and describe their simple functions. To know the different types of human teeth (incisor, canine, premolar and molar) and their simple functions.	To know the main parts of the human circulatory system (heart, blood vessels and blood). To know that the heart pumps blood around the body. To know that the blood vessels transport blood around the body. To know that the blood transports vital substances around the body, including oxygen and nutrients. To understand the relationships between different organ systems.

Aylburton and English Bicknor C of E Primary Schools

Science Curriculum

	To know that animals need food.	To know that a carnivore is an animal that eats other animals and give some examples. To know that a herbivore is an animal that eats only plants and give some examples. To know that an omnivore is an animal that eats both animals and plants, and to give some examples. To know that animals, including humans, need water, food and air to survive. To understand the importance of exercise, a balanced diet and hygiene for humans.	To know that animals, including humans, need the right types and amount of nutrition. To understand that humans cannot make their own food and therefore eat to get the nutrition needed. To know the main nutrient groups (carbohydrates, protein, fats, fibre, vitamins, minerals and water) and their simple functions. To know that a balanced diet should include all nutrient groups. To describe the diets of different animals. To know that teeth can be damaged, including the effect of sugary and acidic food. To know that it is important to brush teeth twice a day, make good food choices and visit the dentist regularly. To describe the teeth of carnivores and herbivores, and understand why they are different. To know that predators hunt for their food and prey are the animals being hunted. To know that producers make their own food. To know that food chains begin with a producer followed by consumers, and arrows to show the energy passed on.	To understand the impact of diet, exercise, drugs and lifestyle on the way a body functions. To know that the heart rate is the number of beats per minute. To know that exercise increases heart rate.
Living things and their habitats	To know that animals and plants move, grow and feed. To know the difference between things that are living and things that are non-living.	To begin to understand some of the life processes, including movement, reproduction, sensitivity, growth, excretion and nutrition.	To know that living things can be grouped in different ways. To know that a classification key can be used to group and identify plants and animals.	To know that 'organism' is a term used to refer to an individual living thing.

Aylburton and English Bicknor C of E Primary Schools Science Curriculum

To know that some animals hibernate or store food in winter	To know the difference between things that are living, dead, and things that have never been alive, using some of the life processes.	To know that vertebrates are animals which have a backbone and invertebrates are animals which do not have a backbone. To know that plants can be grouped into flowering or non-flowering varieties. To know that flowering plants include grasses and non-flowering plants includes ferns and mosses. To know that there are five main vertebrate groups: birds, mammals, reptiles, amphibians and fish. To know that invertebrate groups include snails, slugs, worms, spiders and insects.	To know that micro-organisms are incredibly small and cannot usually be seen by the naked eye. To know the characteristics of the different groups of vertebrates and commonly found invertebrates.
To know the names of familiar animals (e.g. farm animals, pets and animals seen in storybooks.) To know the names of some familiar flowering plants (e.g. daisy, rose, sunflower, daffodil).	To know a variety of plants and animals and describe some differences.		To know that a life cycle shows the changes an animal or plant goes through until the reproduction of a new generation when the cycle starts again. To know that all living things must reproduce for the species to survive. To know that sexual reproduction requires two parents, whereas asexual reproduction only requires one parent. To know that there are different processes plants and animals use to reproduce (asexual and sexual reproduction). To know that living things have changed over time. To know that fossils provide us with information about living things that

Aylburton and English Bicknor C of E Primary Schools Science Curriculum

				inhabited the Earth millions of years ago. To know that characteristics are passed from parents to their offspring, but that all offspring vary from their parents. To know that over time, variation in offspring can affect animals’ chances of survival in particular environments.
	To know that plants and animals live in a range of different places (land, sea, air). To name some different places where animals live on the school site.	To name a variety of habitats, including woodland, ocean, rainforest and seashore. To know that a habitat is the environment where an animal or plant lives/ grows, because it provides what they need to survive. To know that a micro-habitat is a very small habitat (e.g. stones, logs and leaf litter). To know that living things depend upon each other (e.g. for food, shelter.) To understand that a food chain can be used to show how animals obtain food from eating either plants and/or other animals.	To know that habitats can change throughout the year and this can be dangerous for living things. To know that humans can have both a positive and negative impact on the environment	To know that animals and plants have adapted to suit their environment over many millions of years and that this process can be called evolution.
Materials	To recognise that things around us are made from different materials.	To know that objects are items or things. To know that a material is what an object is made from. To identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock.	To know that rocks can be grouped based on their appearance or properties, (e.g. colour, texture, hardness, permeability.) To know that rocks may contain grains, crystals or fossils. To know that grains and crystals appear differently and can be used to classify rocks.	

Aylburton and English Bicknor C of E Primary Schools

Science Curriculum

			To know that soils are made from rocks and dead matter To know that all substances around us can exist as solids, liquids and gases.	
To describe materials using the senses (hard, soft, strong, bendy).	To know that property refers to how a material can be described. To describe the physical properties of a variety of everyday materials. To understand that materials can be grouped based on their physical properties. To know why objects are made from particular materials and to give examples of their suitability. To know that one material can be used for a range of purposes (and to give examples.) To know that different materials can be used for the same purpose (and to give examples.) To know why certain materials are unsuitable for particular objects.	To understand the relationship between the properties of rocks and their uses To know that a property of a solid is that it keeps its shape unless a force is applied to it. To know that a property of a liquid can flow freely and take on the shape of a container. To know that a property of a gas does not have a fixed shape and can escape from an unsealed container.	To describe a broader range of materials and their properties, including hardness, solubility, transparency, conductivity and response to magnets.	
To understand that some materials can change shape.	To know that a push or pull must be applied to change the shape of a solid object. To know that solid objects can be squashed, bent, twisted or stretched. To know that different solid objects may take a different amount of force to change shape.	To know that fossils can form from the remains of living things. To know that rocks can change over time (e.g. erosion, weathering). To know that heating causes solids to turn into liquids (melting) and liquids to turn into gases (evaporating). To know that cooling causes gases to turn into liquids (condensing) and liquids to turn into solids (freezing). To know that water can exist as a solid, a liquid or a gas.	To know that some substances will dissolve in a liquid to form a solution. To know the factors that affect the time taken to dissolve, including temperature and stirring. To understand that dissolving, mixing and changes of state are reversible changes. To know that some liquids and solids can be separated using sieving, filtering and evaporation and to describe these processes.	

Aylburton and English Bicknor C of E Primary Schools Science Curriculum

			To know that the melting point of water is zero degrees Celsius and the boiling point of water is 100 degrees Celsius To know that water flows around the world in a continuous process called the water cycle. To know that in the water cycle, evaporation is when bodies of water are heated and turn into water vapour. To know that in the water cycle, condensation is the process of water vapour cooling to form water droplets in clouds, which can result in precipitation. To know that the rate of evaporation increases as temperature rises.	To understand that some changes result in the formation of new materials and that these are usually irreversible. (e.g. burning, rusting, the action of acid on bicarbonate of soda.
Energy			To know that light travels from a source (e.g. the Sun, light bulbs and torches). To know that light is needed to see things and that dark is the absence of light. To know that light from the Sun can be dangerous and how to protect their eyes. To understand that sound is a result of vibrations. To know that all electrical appliances need a power source, including batteries or mains electricity.	To know that light travels in a straight line from a light source. To understand that luminous objects are seen as a result of light directly entering the eye, whereas non-luminous objects reflect light into the eye. To know a wider variety of components in a series circuit (including buzzer and motor). To know the conventions used to draw circuit diagrams, including the recognised symbols for common components and using straight lines.

			To know that an electrical circuit needs a complete path for the electrical charge to flow through. To know the main components in a simple series circuit. To know the precautions for working safely with electricity.	
			To know that all materials reflect light. To know that shadows are formed when the light from a light source is blocked by an opaque object. To know that vibrations from sounds travel through mediums to the ear. To know that an insulating material reduces the amount of vibrations that pass through it and this can be used to protect the ears from damaging sounds. To know that different materials provide different amounts of insulation against sound. To know that some materials allow electrical charge to pass through them quickly and these are known as electrical conductors (e.g. metals). To know that some materials do not allow electrical charge to pass through them easily and these are known as electrical insulators (e.g wood and plastic). To know that metals are used for cables and wires because they are good conductors of electricity.	To know that shiny surfaces reflect light uniformly. To know that when light is reflected off a surface, its direction changes. To know that mirrors and periscopes work using reflection of light on smooth surfaces. To understand why shadows have the same shape as the objects that cast them as a result of light travelling in straight lines. To understand relationships between light sources, objects and shadows.

Aylburton and English Bicknor C of E Primary Schools

Science Curriculum

			To know that plastic is used to cover cables and wires because it is a good insulator.	
			To know that shadows change as a result of different factors: - Changing the position of the light source. - Changing the distances between the light source, object and surface. To know that shadows change position and length throughout the day as the Sun changes position in the sky. To know a variety of ways to change the pitch or volume of a sound. To know that quicker vibrations cause higher-pitched sounds and slower vibrations cause lower-pitched sounds. To know that stronger vibrations cause louder sounds and weaker vibrations cause quieter sounds. To know that sounds get fainter as the distance from the sound source increases. To understand that an open switch breaks a series circuit so the components will be off. To understand that a closed switch completes a series circuit so the components will be on. To understand the relationship between bulb brightness and the number of bulbs in a circuit.	To understand how and why the distance between the object and the screen affects the size of the shadow. To understand how the angle of a reflected ray is affected by the angle of the incoming ray on a smooth surface. To understand that an open switch breaks a series circuit so the components will be off. To understand that a closed switch completes a series circuit so the components will be on. To understand the relationship between bulb brightness and the number of bulbs in a circuit.

Forces, Earth and Space	To know that some trees change in the four seasons. To know some signs of each season (leaves on the ground, cold weather, daffodils growing and sunny weather.) To know that some animals hibernate or store food in winter.	To know the name and order of the four seasons; spring, summer, autumn and winter. To know that it is unsafe to look directly at the Sun.	To know some examples of contact and non-contact forces. To know that some forces are a result of contact between two surfaces, but some forces can act at a distance (e.g. magnetism). To know the North and South poles of a magnet. To know some examples of magnetic materials, including iron and nickel, and how they react to a magnet and each other. To know some different examples of magnets, including bar, horseshoe, button and ring, To know some uses of magnets.	To know that the Sun is a star at the centre of our solar system. To know that the Sun, Earth and Moon are approximately spherical bodies. To know the names, order and relative positions of the planets and other main celestial bodies. To know that a moon is a celestial body that orbits a planet and give examples of moons that orbit other planets. To know that gravity is a non-contact force that pulls objects together. To know that air resistance and water resistance are both types of friction.
	To know that the weather changes throughout the year. To know and compare weather types (rain, sun, snow, wind).	To know weather associated with the four seasons and how it changes (in the UK). To understand that day length varies across the four seasons, with fewer daylight hours in the winter and more in the summer.	To know that friction is a contact force that acts between two surfaces to slow an object down. To know that magnetism is a non-contact force that affects objects containing magnetic metal. To understand that the opposite poles of a magnet attract one another and like poles repel one another	To know that the Earth and other planets orbit around the Sun. To know that the tilt of the Earth and its orbit around the Sun causes the seasons. To know that the Moon orbits around the Earth. To understand how the Earth's rotation causes day and night and the apparent movement of the Sun across the sky. To know that unsupported objects fall towards the Earth because of gravity. To know that friction, air resistance and water resistance act in the opposite direction to a moving object. To know that when forces are imbalanced, the speed, shape or direction of an object changes.

				To know that when forces are balanced the speed, shape or direction of an object stays the same. To know that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect.
			To know that rougher surfaces have more friction between them than smoother surfaces. To understand that the strength of different magnets may vary.	To know that rougher surfaces have more friction between them than smoother surfaces and how that may affect movement. To know that the larger the surface area of an object the greater the air or water resistance it creates.

Progression of Skills

Posing Questions	With support, asking questions about the natural world.	Exploring the world around them and raising their own simple questions. Recognising there are different types of enquiry (ways to answer a question). Responding to suggestions on how to answer questions.	Beginning to raise further questions during the enquiry process. Considering what makes a testable question. Beginning to recognise that there are different types of enquiry and that they are suitable for different questions. Beginning to make suggestions about how different questions could be answered	Raising questions throughout the enquiry process. Identifying testable questions. Selecting the most appropriate enquiry method to answer questions and give justification.
Planning	Beginning to share ideas and suggestions about what to do, when working practically.	Beginning to recognise whether a test is fair. With support, deciding if suggested observations are suitable. Ordering a simple method.	Beginning to select from options which variables will be changed, measured and controlled. Beginning to suggest what observations to make and how long to make them for. Planning a simple method, verbally and in writing.	Suggesting which variables will be changed, measured and controlled. Making and explaining decisions about what observations to make and how long to make them for. Writing a method including detail about how to ensure control variables are kept the same.

			Beginning to write a simple method in numbered steps. Selecting and beginning to decide what simple equipment might be used to aid observations and measurements.	Writing a method that considers reliability by planning repeated readings. Suggesting the most appropriate equipment to make observations and measurements and justifying their choices.
Predicting	Beginning to make guesses about what might happen.	Suggesting what might happen, often justifying with personal experience.	Making predictions about what they think will happen by: - Using scientific knowledge and/or personal experience to explain their prediction (because...) - Beginning to consider cause and effect when making predictions, where appropriate. - Predicting a trend by considering how the changing variable will affect the measured variable. (The smoother the surface, the longer the distance the car will travel)	Making increasingly scientific predictions by: - Using previous scientific knowledge and evidence to inform their predictions. - Using scientific language to describe a potential outcome or explain why they think something will happen. - Making links between topics to evidence a prediction
Observing	Commenting on what they see and hear in the natural world	Using their senses to describe, in simple terms, what they notice or what has changed.	Using their senses to describe, in more detail and with simple scientific vocabulary, what they notice or what has changed.	Using their senses to describe, in detail and with a broader range of scientific vocabulary, what they notice or what has changed.
Measuring	Using non-standard units to measure.	Using non-standard units to measure and compare. Beginning to use standard units and read simple scales to measure and compare. Beginning to use simple measuring equipment to make approximate measurements.	Using standard units to measure and compare. Using measuring equipment with increasing accuracy. Reading scales with unmarked intervals between numbers.	Using standard units to measure and compare with increasing precision (decimals). Reading a wider variety of scales with unmarked intervals between numbers.

Aylburton and English Bicknor C of E Primary Schools

Science Curriculum

Researching	Recognising that information can be found online and in books.	Gathering specific information from one simplified, specified source.	Gathering specific information from a variety of sources.	Gathering answers to open-ended questions from a variety of sources
Recording	Drawing and labelling pictures of plants and animals.	Drawing and labelling simple diagrams	Beginning to draw more scientific diagrams by: - Using some standard symbols. - Drawing in 2D to produce simple line diagrams. - Labelling with more scientific vocabulary	Drawing scientific diagrams by: - Using a wider range of standard symbols. - Drawing with increasing accuracy. - Labelling with a broader range of scientific vocabulary. - Annotating diagrams to explain concepts and convey opinions
	Recognising that tables can be used to record information.	Using a prepared table to record results including: - Numbers. - Simple observations. - Tally frequency	Using a prepared table to record results including more detailed observations. Using tables with more than two columns. Identifying and adding headings to tables. Beginning to design simple results tables.	Using tables with columns that allow for repeat readings. Suggesting headings to tables, including units. Designing results tables with increasing independence with consideration of variables where applicable. Calculating the mean average
Grouping and classifying	With support, grouping objects, plants and animals.	Grouping based on visible characteristics. Organising questions to create a simple classification key	Grouping based on visible characteristics and measurable properties. Populating a pre-prepared branching and number key. Choosing appropriate questions for classification keys.	Grouping in a broader range of contexts. Organising the layout of number and branching keys. Formulating appropriate questions for classification keys.
Graphing	N/A	Representing data using pictograms and block graphs.	Representing data using bar charts. Drawing bars with greater accuracy. Reading the value of bars with greater accuracy.	Representing data by using line graphs and scatter graphs. Plotting points with greater accuracy. Reading the value of plotted points with greater accuracy
Analysing and Drawing Conclusions	Describing their discoveries when working practically.	Using their results to answer simple questions.	Writing a conclusion to summarise findings using simple scientific vocabulary.	Writing a conclusion to summarise findings using increasingly complex scientific vocabulary.

		Beginning to recognise when results or observations do not match their predictions.	Beginning to suggest how one variable may have affected another. Beginning to quote results as evidence of relationships. Identifying data that does not fit a pattern (anomalous data). Recognising when results or observations do not match their predictions. Beginning to use identified patterns to predict new values or trends.	Suggesting with increasing independence how one variable may have affected another. Quoting relevant data as evidence of relationships. Identifying anomalies in repeat data and excluding results where appropriate. Comparing individual, class and/or model data to the prediction and recognising when they do not match. Using identified patterns to predict new values or trends.
Evaluating	N/A	N/A	Beginning to identify steps in the method that need changing and suggest improvements. Beginning to identify which variables were difficult to control and suggesting how to better control them. Commenting on the degree of trust by reflecting on: - Results that do not fit a pattern (anomalies). - The quality of results (accurate measurements and maintaining control variables). Beginning to identify new questions that would further the enquiry.	Identifying steps in the method that need changing and suggesting improvements. Identifying which variables were difficult to control and suggesting how to control them better. Commenting on the degree of trust by also reflecting on: - Accuracy (human error with equipment). - Reliability (repeating results). - Sources of information (e.g. websites, books). Posing new questions in response to the data that would extend the enquiry. Deciding what data to collect to further test direct relationships.
<u>Science in Action</u>				
	To know some different job roles	To know about famous scientists throughout history. To know about a range of jobs and careers that use scientific knowledge and methods. To know about the work of modern-day scientists. To know about science in the news and recent discoveries.		

Aylburton and English Bicknor C of E Primary Schools

Science Curriculum

		To know there are spiritual, moral, social and cultural links with Science.		
			To know about the methods and equipment used by scientists throughout history and how these have led to modern methods. To know how scientific knowledge has changed over time, leading to the current understanding of Science. To know about current scientific research and what it aims to achieve in the future. To know that collaboration and peer reviewing is essential for effective scientific progress.	
				To know how scientific evidence is used to support or refute ideas or arguments. To know that mistakes can lead to new discoveries