Curriculum Intent Science: Key Stage 2 2025 - 2026

At Compass School, our overall aim is to enable a sense of curiosity and wonder about the world. We aim to equip pupils with the knowledge, skills and vocabulary they need to explore, question and understand scientific concepts. All pupils are assessed on entry, and the curriculum is adapted to close knowledge gaps and meet individual needs. Carefully selected topics build interest, cultural awareness, and global understanding, while developing essential scientific skills. Through hands-on investigations, engaging lessons, and real-world connections, we encourage children to think critically, work scientifically, and develop a lifelong love of learning. Our curriculum is designed to enable pupils to ask questions, carry out experiments, make observations, and draw conclusions with increasing independence and confidence. Our goal is for every pupil to leave Compass School confident in expressing their scientific thinking, equipped with the knowledge and curiosity to continue exploring the world around them.

Skills and Knowledge Key Stage 2

Every half term, we ensure that we offer cross curricular (Cc) opportunities to our pupils as well as covering Social, Moral, Spiritual and Cultural (SMSC) elements.
These are detailed below using the following codes, enabling us to track what is delivered in each subject:
Cross Curricular Links include: M (Maths), Eng (English), Sc (Science), PS (PSHE), FT (Food Tech), CR (Craft), AD (Art & Design), C (Computing), G (Geography), H (History), En (Engineering), R (Reading), Ec (Economics)
SMSC Links include: B (British Values), Sp (Spiritual aspects), M (Moral aspects), So (Social aspects), C (Cultural aspects), R (Religious aspects), Rel (Relationships), P (Prevent), E (E-Safety), I (Individual Advice & Guidance & Careers), H (Healthy Lifestyle including wellbeing).

	Key Stage 2 Topics	Key Stage 2 Skills	Key Stage 2 Knowledge
HT1	**Plants / living things and habitats** CC - M, Eng, Sc, PS, G, C, R SMSC – M, So, H	Questioning Observing Investigating Measuring Recording Concluding Classifying Communicating	To identify and describe the functions of different parts of flowering plants To explore the requirements of plants for life and growth and how these vary between plants To investigate how water is transported within plants. To explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation, and seed dispersal To recognise that living things can be grouped in a variety of ways. To use and construct classification keys to group, identify, and name a variety of living things in local and wider environments To recognise how environments can change and how this can pose dangers to living things
	Key Stage 2 Topics	**Key Stage 2 Skills**	**Key Stage 2 Knowledge**
HT2	**Animals including Humans** CC - M, Eng, Sc, PS, G, C, R SMSC – M, So, H	Questioning Observing Investigating Measuring Comparing Classifying Recording Analysing Concluding Communicating	To identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food. To identify that human and some animals have skeletons and muscles for support, protection, and movement To describe the simple functions of the basic parts of the digestive system in humans To identify the different types of teeth in humans and their simple functions To construct and interpret a variety of food chains, identifying producers, predators, and prey To describe the changes as humans, develop to old age. To identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels, and blood. To recognise the impact of diet, exercise, drugs, and lifestyle on the way their body's function To describe the ways in which nutrients and water are transported within animals, including humans
	Key Stage 2 Topics	**Key Stage 2 Skills**	**Key Stage 2 Knowledge**
HT3	**Forces and magnets** CC - M, Eng, Sc, PS, C, R SMSC – M, So	Observing Comparing Predicting Measuring Recording Classifying Concluding Explaining Investigating Evaluating	To know that a force is a push or pull that can make an object start moving, stop, speed up, slow down, or change direction. To identify and compare how things move on different surfaces, understanding that friction is a force that opposes motion To observe that some forces act at a distance without contact, such as magnetic forces and gravity To know that magnets attract some materials but not others and that this is due to magnetic properties To identify magnetic materials, including iron and some steels, and distinguish them from non-magnetic materials. To describe magnets as having two poles and know that like poles repel and opposite poles attract To investigate how the strength of a magnetic force varies with distance. To understand that magnetic forces can act through non-magnetic materials To understand how magnets are used in everyday life To conduct fair tests to explore the behaviour of magnets and friction, drawing conclusions from results

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HT4	**Rocks and states of matter** CC - M, Eng, Sc, PS, C, R SMSC – M, So	Observing Comparing Classifying Investigating Describing Explaining Measuring Recording Predicting Evaluating Concluding	To identify, compare and group different types of rocks based on their appearance and simple physical properties. To observe how some rocks are more permeable, durable, or dense than others To understand that soil is made from rocks and organic matter and that it varies in texture and composition. To describe how fossils are formed when things that have lived are trapped within rock To understand that fossils provide evidence about living things that inhabited the Earth millions of years ago. To compare and group soils based on observable characteristics and particle size To know that materials can exist in three states: solid, liquid, and gas. To identify the properties of solids, liquids, and gases in terms of shape and volume To understand that heating and cooling can cause materials to change state (melting, freezing, evaporating, condensing). To observe that changes of state are physical changes and do not produce new substances To know that the water cycle includes the processes of evaporation and condensation
	Key Stage 2 Topics	**Key Stage 2 Skills**	**Key Stage 2 Knowledge**
HT5	**Light and Sound** CC - M, Eng, Sc, PS, C, R SMSC – M, So	Observing Investigating Measuring Comparing Predicting Recording Explaining Questioning Evaluating Concluding Classifying	To understand that we need light to see things and that darkness is the absence of light To identify and name natural and artificial sources of light. To recognise that light is reflected from surfaces. To understand that some materials block light (opaque), some let it through partially (translucent), and others fully (transparent). To know that shadows are formed when light is blocked by an opaque object To observe that the size and shape of shadows change depending on the position of the light source. To explore how mirrors reflect light and how this is used in everyday applications To know that sound is made when something vibrates. To know that sound travels at different speeds through solids, liquids, and gases. To understand that pitch is how high or low a sound is and is related to the frequency of vibrations To understand that volume is how loud or quiet a sound is and is related to the strength (amplitude) of the vibrations To investigate how sounds change with distance from the source. To explore ways to absorb sound and reduce noise using different materials
	Key Stage 2 Topics	**Key Stage 2 Skills**	**Key Stage 2 Knowledge**
HT6	**Electricity** CC - M, Eng, Sc, PS, C, R SMSC – M, So, H	Observing Predicting Comparing Measuring Recording Explaining Evaluating Investigating	To know that electricity is a form of energy used to power devices and appliances To identify common appliances and devices that run on electricity. To know the difference between mains electricity and battery-powered sources To construct a simple series circuit using wires, bulbs, switches, and batteries To recognise and name the basic components in a circuit, including cell, wire, bulb, switch, and buzzer To understand that a complete circuit is needed for electricity to flow and make components work To identify whether a circuit is complete or incomplete and explain why it does or does not work To understand that a switch opens and closes a circuit and affects whether components work To know that some materials conduct electricity (conductors) and others do not (insulators)

			To understand the dangers of electricity and how to use it safely