

Applied Science Curriculum Intent: Key Stage 4 2025 - 2026

At Compass School, our BTEC Level 1 Introductory Award in Applied Science curriculum aims to:

Inspire a love of learning by creating a stimulating and engaging learning environment that fosters curiosity and a passion for exploring and understanding key environmental issues. We prepare the pupils for success by equipping them with the knowledge and skills necessary to excel in their coursework, and provide a strong foundation for further study in science or related disciplines. We endorse lifelong learning for pupils develop a critical appreciation of the scientific process and its impact on our world. They will be encouraged to ask questions, seek evidence, and continue learning about science throughout their lives.

Unit A2 will help learners explore the skills and behaviours that will need to reach their own personal goals, and help them plan ways to achieve their full potential, by demonstrating skills in planning, communication and working with others.
Unit ASc9 will help learners develop practical ways to reduce the negative impact of society-wide human activities on the environment, as well as suggesting practical actions for conservation and promote biodiversity.

Skills and Knowledge Key Stage 4

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 4 Topics	Key Stage 4 Skills		Key Stage 4 Knowledge	
HT1	<p>A2 unit Benefits and purpose of developing a progression plan Finding out about progression opportunities Setting a progression goal</p> <p>ASc9 unit Understanding key environmental issues</p> <p>SMSC - So, H, I, Rel, C</p> <p>CC – PS, M, Sc</p>	<p>A2 unit: Identifying the skills and behaviours needed to meet progression goals</p>	<p>ASc9 unit: Describing human impact on the environment. Analysing Concluding Communicating Comparing Classifying Collecting data Describing Observing Evaluating Recording Researching Understanding Questioning</p>	<p>A2 unit: Understanding the purpose of developing a progression plan Creating a progression plan</p>	<p>ASc9 unit: To explore the Greenhouse effect To have a knowledge of the carbon cycle To identify the effects of extreme weather events. To recognise the damaging effects of warming oceans and glaciers To have an understanding of the carbon cycle</p>
	Key Stage 4 Topics	Key Stage 4 Skills		Key Stage 4 Knowledge	
HT2	<p>A2 unit Identifying the skills and behaviours needed to meet progression goal Reviewing own skills (including transferable) and behaviours against progression goal</p> <p>ASc9 unit Climate</p> <p>SMSC - Rel, P, E</p> <p>CC – PS, M, Sc, C</p>	<p>A2 unit: Reviewing own skills and behaviours against progressions goals</p>	<p>ASc9 unit: Analysing Concluding Communicating Comparing Classifying Collecting data Describing Evaluating Investigating Observing Recording Researching Understanding Questioning</p>	<p>A2 unit: Finding out about progression opportunities Setting a progression goal Creating a progression plan</p>	<p>ASc9 unit: To understanding what you need to develop to be able to meet your goals To identify Sources of Pollution: Air, Water, Soil, Noise, and Light. To understand how pollution harms the environment To describe and evaluate energy demand (heating and cooling) at local as well as world level To be aware of the agro-ecosystem and how it impacts on climate change. To be aware of climate solutions for sustainability</p>
	Key Stage 4 Topics	Key Stage 4 Skills		Key Stage 4 Knowledge	
HT3	<p>ASc9 unit Practical actions for conservation</p> <p>SMSC - So. Rel, P, E</p> <p>CC – PS, M, Sc, C</p>	<p>ASc9 unit: Analysing Concluding Communicating Comparing Classifying Collecting data Describing Demonstrating Explaining Evaluating Exemplifying</p>		<p>ASc9 unit To describe of a range of key environmental issues. To understand Greenhouse Effect To research the Carbon Cycle To explore Extreme Weather Events To collect data about Warming Oceans, and Melting Ice To describe and compare Sources of Pollution: Air, Water, Soil, Noise, and Light To understand how pollution harms the environment.</p>	

		Identifying Observing Planning Recording Researching Suggesting Understanding	
	Key Stage 4 Topics	Key Stage 4 Skills	Key Stage 4 Knowledge
HT4	<p>ASc9 unit: Working with others to carry out practical actions to protect the environment</p> <p>SMSC – C, So, Rel</p> <p>CC – PS, M, Sc,</p>	<p>ASc9 unit Analysing Concluding Communicating Comparing Classifying Collecting data Describing Demonstrating Explaining Evaluating Exemplifying Identifying Observing Planning Problem-solving Recording Researching Suggesting Understanding</p>	<p>ASc9 unit To analyse the environmental footprint at Individual/Household Level (Reduce, Reuse, Recycle, and Conserve) to save and sustain the environment. To be aware of how to engage in conservation (Community/Local Level) To be aware of activities that can create and sustain homes for wildlife To be aware how to limit harmful activities To understand how to minimize wastage To understand how to change personal habits detrimental to the environment</p>
	Key Stage 4 Topics	Key Stage 4 Skills	Key Stage 4 Knowledge
HT5	<p>ASc9 unit: How human activities can affect the environment</p> <p>SMSC – M, SO, P</p> <p>CC – PS, M, Sc</p>	<p>ASc9 unit Analysing Concluding Collecting data Describing Demonstrating Explaining Evaluating Identifying Observing Problem-solving Recording Researching Suggesting Understanding</p>	<p>ASc9 unit To describe how human activities can affect the environment To understand how our actions that can have a negative impact on the environment To explore and suggest actions impacting the environment positively. To familiarise with sustainability, conservation, and key environmental issues To understand what a mindful consumer means for the environment</p>
	Key Stage 4 Topics	Key Stage 4 Skills	Key Stage 4 Knowledge
HT6	<p>ASc13 unit: Y10 Preparation for Extended Certificate L1/L2 Exploring Biology</p> <p>SMSC – E, P, I, H CC – PS, FT, C,</p>	<p>Analysing Concluding Describing Demonstrating Explaining Evaluating Identifying Problem-solving Researching Understanding</p>	<p>ASc13 unit To understand the hierarchy of organisation in multicellular organisms. To be aware of how cells, tissues, organs and the organ systems are organised. To describe the role and organisation of the nervous system To explain the importance of keeping a constant body internal environment. To describe the organs of the female and male reproductive system. To outline how scientific discoveries aided disease prevention.</p>