Key Stage 3 Curriculum Map Science

	Autumn Half Term 1	Autumn Half Term 2	Spring Half Term 1	Spring Half Term 2	Summer Half Term 1	Summer Half Term 2
	Knowledge acquired					
Year 7	Base line assessment Key Skills from working scientifically	Interactions and Interdependencies Living things Habitats and food chains etc Chemical and Physical changes Cells & Organisms *Ensuring that plants and animals from KS1&2 is concrete*	Materials and their properties (solubility and conductivity etc.) Changing state	Chemical and Physical changes Acids & Alkalis	Forces • Push and Pull • Balanced/non balanced • Types of forces • Floating and Sinking Electrical Circuits	Space Energy – simple changes
	Skills acquired					

- **Observing** –Observation requires students to note the "big picture" and the fine details.
- **Classifying** – This skill builds upon observation. Students can learn to separate and sort objects based on properties.
- **Quantifying** – One of the most valuable skills needed for science study is the ability to measure accurately.
- Using a ruler and a measuring cup and acquiring more complex measuring skills using mathematical equations and advanced equipment.
- **Predicting** – This skill derives from your students being able to spot patterns in past experiments or existing evidence
- Before performing any experiment, students should be asked what they think will happen.
- **Controlling variables** – Many different factors can affect the outcome of an experiment.
- **Interpreting** – This skill is closely related to inferring, which means coming to a conclusion after analysing information. Interpreting, is inferring, from a point of view. Students should try to understand results, based on the records they keep.
- **Communicating** – Students must be able to transmit information through words, charts, diagrams, and other mediums.
- **Forming conclusions** – This skill is connected to interpreting. Students cannot make conclusions hastily; they must be reached through careful reasoning. When forming conclusions, students should look back at their predictions and compare them with the actual results.
- **Digital literacy** – Use accessible digital resources to research a science question; enter and organise results in a simple table or spreadsheet; use a digital document or presentation to communicate findings; practise safe, responsible use of devices and reliable sources.
- **Oracy** – Explain ideas using key scientific vocabulary; describe observations in a clear sequence; make a prediction and give a reason; ask relevant questions, listen to others and discuss evidence using sentence starters where helpful.

Year 1 8/9

Key Assessments taking place

- End of unit tests
- Retrieval tasks
- Practical assessments
- Comprehension tasks
- Multiple choice tests
- Verbal feedback

Autumn Half Term 1	Autumn Half Term 2	Spring Half Term 1	Spring Half Term 2	Summer Half Term 1	Summer Half Term 2
Knowledge acquired					
Reproduction Health	Digestion and Nutrition Structure of the Earth	Cells and organisation Atoms, Elements Compounds	Acid and Alkalis (2) Separating Mixtures	Magnetism (1) Static Electricity	Light Sound

Skills acquired

Application of key concepts from the big ideas –

- All material in the Universe is made of very small particles.
- Objects can affect other objects at a distance.
- Changing the movement of an object requires a net force to be acting on it.
- The total amount of energy in the Universe is always the same but energy can be transformed when things change or are made to happen.
- The composition of the Earth and its atmosphere and the processes occurring within them shape the Earth's surface and its climate.
- The solar system is a very small part of one of millions of galaxies in the Universe.
- Organisms are organised on a cellular basis.
- Organisms require a supply of energy and materials for which they are often dependent on or in competition with other organisms.
- Genetic information is passed down from one generation of organisms to another.
- The diversity of organisms, living and extinct, is the result of evolution.

- **Developing links across the three sciences and understanding of how science works**

Key Assessments taking place

- End of unit tests
- Multiple choice questions
- Practical assessments
- Retrieval practice
- Comprehension activities
- Verbal feedback

Year

Autumn Half Term 1	Autumn Half Term 2	Spring Half Term 1	Spring Half Term 2	Summer Half Term 1	Summer Half Term 2
Knowledge acquired					

Types of Chemical Reactions Current Electricity & Magnetism (2)	Respiration Carbon cycle (environmental Chemistry)	Skeletal and Muscular System Space Physics	Conservation of mass Energy Calculations	Photosynthesis Genetics and Evolution	The Periodic Table Pressure and Moments

Skills acquired

Application of key concepts about science

- Science is about finding the cause or causes of phenomena in the natural world.
- Scientific explanations, theories and models are those that best fit the evidence available at a particular time.
- The knowledge produced by science is used in engineering and technologies to create products to serve human ends.
- Applications of science often have ethical, social, economic and political implications

Key Assessments taking place

- End of unit tests
- Multiple choice questions
- Practical assessments
- Retrieval practice
- Comprehension activities
- Verbal feedback

Suggestions to parents/Carers to support homework

- Keep it short and manageable (around 10–15 minutes); practise a few key words and ask the pupil to explain them in their own words
- Use everyday examples and real objects at home; talk through what the object is made from, what it does, or how it relates to the topic.
- Use teacher-provided revision prompts or exam questions. Encourage the pupil to try first, then discuss the answer together rather than completing it for them.
- Support a brief spoken recap, voice note or accessible digital presentation if this is an agreed alternative to extended writing. Follow the school's instructions and avoid unsafe experiments