

## SKILLS TAUGHT ACROSS SCIENCE

Space, Earth's Resources, Genetics, Energy Resources, Atoms and the periodic table, Transport Systems, Cells and Energy changes.

### Rotation

Topics are taught on a rotation per term in science. Each class will study each of these topics described but may be in a different order.



**Energy Resources:** Advantages and disadvantages of a variety of resources for generating electricity, Investigating insulation, Calculating power and efficiency, Interpreting graphs

#### Atoms and the Periodic Table:

Atoms, Elements, Compounds and Mixtures, Separation techniques, Structure of atoms Electronic structure, Arrangement of the periodic table, Transition metals

**Transport Systems:** Substances that are transported in and out of cells, diffusion, osmosis, active transport, transpiration, translocation, circulatory system, heart, blood vessels, blood and complications of the circulatory system



### Assessments

Assessments will happen at the end of each project to ensure key knowledge is remembered. To include knowledge recall, skills and extended writing.



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## Autumn Term



**Space:** Moon and earth, day, night and seasons, solar system, dwarf planets, comets and natural satellites, universe and associated theories

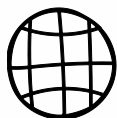
**Earth's Resources:** Rock types and cycle, Earth's atmosphere and how it has changed, Earth's resources, polymers and ceramics

**Genetics:** Variation and species, DNA discovery and structure, natural selection, evolution, extinction

KS3 Revision – Assessment Preparation

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## Spring Term



**Cells:** Prokaryotic and eukaryotic cells, cell substructures, stem cells, enzymes and factors that affect them, respiration (aerobic and anaerobic), main biological molecules and why are they important

**Energy Changes:** Exothermic and endothermic reactions, reaction profiles, calculating energy changes, chemical cells, fuel cells

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## Summer Term

### Skills Development, Key knowledge:

- Experimental planning
- Data collection and analysis
- Scientific evaluation
- Calculations