

Science Overview Thomas Hall School 2023-2024

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| Early Years and Key Stage 1 |
| Key Stage 2 |
| Key Stage 3 |
| Key Stage 4 |

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| **Year**  | **Autumn 1**  | **Autumn 2**  | **Spring 1**  | **Spring 2**  | **Summer 1**  | **Summer 2**  |
| **Reception** | Explore the natural world around them.Describe what they see, hear and feel whilst outside.Understand the effect of changing seasons on the natural world around them. | Explore the natural world around them.Describe what they see, hear and feel whilst outside.Understand the effect of changing seasons on the natural world around them. | Describe their immediate environment using knowledge from observation,discussion, stories, non-fiction texts and maps.Explore the natural world around them, making observations and drawing pictures of animals and plants. | Describe their immediate environment using knowledge from observation,discussion, stories, non-fiction texts and maps.Explore the natural world around them, making observations and drawing pictures of animals and plants. | Recognise some environments that are different to the one in which they live. | Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. |
| **Year 1** | Seasonal ChangesPlants | Animals Including Humans | Animals Including HumansEveryday Materials | Everyday Materials | Revisit Plants | Revisit Animals Including Humans |
| **Year 2** | Living things & their Habitats | Animals Including Humans | Everyday Materials | Revisit Animals Including Humans & Everyday Materials | Plants | Revisit Animals including Humans & Plants |
| **Year 3** | Rocks and Soils | Revisit Rocks & Soils | Animals Including Humans | Forces & Magnets | Plants | Light |
| **Year 4** | Living Things & Their Habitats | States of Matter | Animals Including Humans, Teeth & Digestion | Animals Including Humans – Food Chains | Electricity | Sound |
| **Year 5** | Properties & Changes in Materials | Animals Including Humans - Changes | Introduce Forces | Earth & Space | Living Things and Their Habitats | Revisit: Living Things and Their Habitats |
| **Year 6** | Electricity | Animals Including Humans – Circulatory System | Light | Living Things & Their Habitats - Classification |  | Evolution & Inheritance |
| **Year 7**  | Starting ScienceOrganisms – movements and cellsnature and universe | Forces- speed and gravityEarth- structure and universe | Energy costs and energy transferGenes – human variation and reproduction | Matter – particle model and separating mixturesWaves – sound and light | Ecosystems – interdependence and plant reproductionReactions – metal, Earth  | Electromagnetics – voltage resistance and currentScience Project for Expo |
| **Year 8** | Forces – *Contact forces and Pressure*  Spring Extension Footprint pressure Organisms Measuring Breathing Food tests | Earth – *Climate and Earth Resources*Energy – *Work and Heating and cooling*   | Genes – *Evolution and Inheritance* Matter – *Periodic table and Elements*  | Waves – *Wave effects and Wave properties* Ecosystem – *Respiration and Photosynthesis*  |  Reactions – *Chemical energy and Types of reaction* Electromagnets – *Magnetism and Electromagnetism*  | Science Project for Expo  |
| **Year 9** | Skills Development/GCSE Prep (4 weeks) Cell Biology | Atoms & Periodic Table Energy  | OrganisationStructure & Bonding  | Particle Model Infection & response  | Chemical changes Energy Changes | RP Temperature change   |
| **Year 10** | Electricity Bioenergetics | Organic ChemistryAtomic Structure | Homeostasis and Response Rates of Reaction  | Waves Ecology  | Using ResourcesForces  | Chemistry of the Atmosphere   |
| **Year 11** | Genetics Chemical Changes  | Wave types and propertiesElectromagnetic Spectrum | Evolution and Classification Forces in Equilibrium  | Humans and biodiversity Forces in motion  | Revision  | Exams  |