**Spring Term**

**Autumn 1 :**

Biology- Growth and Differentiation Chemistry- The Periodic Table

**Spring Term:**

Chemistry – Intro to Quantitative ChemistryPhysics – Heating

Biology- Genetics

**Autumn 2:**

Physics – Acceleration Biology- Human Interaction

 -Forces & Motion

KS3

**Science**

**3-year Curriculum map**

Summer: Topic overview

In Chemistry, students build on their knowledge of particles to understand what a mixture is and investigate different ways to separate mixtures. In Physics, students investigate electric circuits, in year 7 they concentrate on measuring the current and potential difference in different types of circuits to prepare them for further study of electricity in year 8.

Towards the end of the year, students will also sit an end of year science assessment to identify how well they have performed in year 7.

Spring: Topic overview

In Biology, students learn about how organisms in an eco-system interact. In Chemistry, students learn about atoms as the building blocks of matter and how they can form compounds. In Physics, students investigate gravity and learn about our solar system.

Autumn: Topic overview

In Biology, students learn about cells as the basic building blocks of life. Later in the term students study reproduction in animals and plants. In Chemistry, students study the states of matter and the particle model. For Physics, students are introduced to the idea of forces and the overall effect they can have on objects.

**Spring Term:**

Chemistry- Changing Substances

Physics-Magnetism

Biology- Life Diversity

Chemistry- Earth Diversity Substances

**Spring Term:**

Chemistry-Atoms, Elements and Compounds

 Physics-Space

Biology-Interdependence

**Summer 1:**

Chemistry-Mixtures

 Physics-Energy Transfers

Summer: Topic overview

In Chemistry, students study how chemists have an important role in increasing sustainable development. In Physics, students study the properties of sound waves and uses of sound waves for example, ultrasound.

**Summer 2 :**

Physics- Light

**End of year**

 **Assessment**

**Summer 1:**

Physics- Electric Circuits: Resistance

Biology- Nutrition

**Autumn 1:**

Biology- Tissues and Organs

Chemistry- Acids and Alkalis

**Autumn 2:**

Physics-Forces

Biology-Reproduction

Spring: Topic overview

In Biology, students will study DNA and how characteristics are inherited. In Chemistry, students begin to complete more complex chemical equations, for example by looking at the concentration of chemicals. In Physics, students study the transfer of energy by heating and how the mass of material affects its temperature when heated.

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Autumn: Topic overview

In Biology, students will build on their understanding of cells from year 7 to look at how cells divide and how substances move into and out of cells. In a separate unit the students also study the effect of pollution on wildlife. In Chemistry, students will build on their previous knowledge to complete a more detailed study of the atom. In Physics, students build on their knowledge of speed to study the concept of acceleration.

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**Summer 2:**

Physics-Electric Circuits

**End of year Assessment**

Spring: Topic overview

In Biology, students learn about variation between organisms, and using their knowledge of reproduction from year 7 look at the process of selective breeding. In Chemistry, students learn more about chemical reactions alongside the structure of our Earth. In Physics, students learn about magnetism and electromagnetism including uses of electromagnets in every-day life.

Summer: Topic overview

In Biology, students learn about the digestive system and the importance of a balanced diet for a healthy body. In Physics, students build on their understanding of circuits from year 7 to look at the concept of electrical resistance. Students also complete a second physics unit of study on the properties of light.

Autumn: Topic overview

In Biology, students learn how cells work together to make tissues and organs. Later in the term, students also study 2 of most important processes in biology, photosynthesis and respiration. In Chemistry, students are introduced to acids and alkalis for the first time and investigate how they react. In Physics, students will study the concept of speed, and link their understanding of particles from year 7 to the concept of gas pressure.