

Science Curriculum Map (Year 8)

[2022 – 2023]



Science Investigations

Compile all of the skills we have developed such as:

Making a prediction, following a method, make and record observations, display results and make conclusions

Variation

Describe how species are adapted to suit their environment. Describe the theory of natural selection and how this can lead to extinction

Changing earth and raw materials

Describe the structure and composition of the Earth. **Identify** raw materials and link properties to use

June

End of year exam

Assessment of all learning since September

Further reactions

Describe and write equations for the following types of reaction:

Oxidation, Combustion, Thermal decomposition and displacement

Pressure

Calculate Pressure by rearranging an equation and converting units. Describe changes in pressure in the atmosphere and in liquids



Speed

Describe distance time graphs.

Calculate speed using a range of data

Photosynthesis

Describe the structure of a leaf and how this supports photosynthesis.

Investigate light intensity

April

Progress test 2

Assessment of all learning since September

Periodic table

Describe how the periodic table is arranged.

Compare the properties of metals and non-metals

Respiration

Describe the structure of the lungs, **investigate** aerobic and anaerobic respiration

The Atom

Describe the structure of an atom, **calculate** numbers of protons, neutrons and electrons. **Apply** conservation of mass to equations.

January

Progress test 1

Assessment of all learning since September

Waves: Light and Sound

Describe waves being longitudinal or transverse
Describe the spectrum of light

Draw ray diagrams
Interpret sound waves
Calculate speed of sound and echo's

Reactions

Investigate temperature changes and identify reactions as **endothermic** or **exothermic**.

Describe how catalysts affect rate of reaction

Food and digestion

Identify the nutrients found in food

Describe the role of organs in the digestive system

Describe the role of enzymes

Year 7 retrieval

Review understanding of the 5 key ideas that support all science learning:

Cells, Interdependence, Particles, Energy and Forces

