

<b>Subject</b>	Science
<b>Term</b>	Cycle 2
<b>Duration (approx.)</b>	7 lessons
<b>Module</b>	Chemistry—The Periodic Table

**Factual knowledge to be taught and assessed (including subject specific vocabulary)**

**State** how the periodic table of elements is arranged. Elements are arranged by their atomic mass. Linking to scientific discoveries previous scientists. To achieve the periodic table we know that was published by Mendeleev in 1869.

**Explain** how metals are classified as metals or non-metals in the periodic table. **Describe** the features that make an element a metal.

**Define** the patterns to predict properties of elements. **Comparing** these patterns between groups.

**Hypothesise** using patterns to predict the properties of group 1 elements. **Explain** the reactivity of group 1 elements after a demo

**Describe** the properties of group 7, **define** displacement reactions.

**State** the physical and chemical properties of group 0 elements. **Describe** the properties of group 0 elements using patterns

**Skills and concepts to be developed**

Recognise different variables in a variety of experiments.

**Formative Assessment one:**

FT1a – Key word spellings/pronunciation + Glossary

FT1b – Use of key words in sentences

**Formative Assessment two:**

FT2 – The Periodic Table  
(Application of knowledge)

**Summative Assessment:**

End of cycle test

This test will cover questions from this topic and current cycle topics to check understanding.

**Link to prior learning:**

Identify and state the purpose of the periodic table from Cycle 1 – Atomic Chemistry.  
Draw and label Dolton’s atomic model  
State the difference between Atomic number and Mass, with a key understanding of Protons, Neutrons and electrons.

**Literacy and Numeracy:**

**How will high standards be promoted in this module?**

**Literacy -**

FT1a – spellings, pronunciations and definitions of key terms

FT1b – Use of key words in sentences

FT2 – Extended answer question in final task that requires pupils to apply their knowledge

**Numeracy –**

Drawing and interpreting graphs from data collected

Atomic number/mass calculations

**Link Forward: Where next for learning?**

**C2** – The periodic table

(Development, groups, trends)

**C3** – Structure and bonding

**C5** – Reactivity of groups

<b>Subject</b>	Science
<b>Term</b>	Cycle 2
<b>Duration (approx.)</b>	7 lessons
<b>Module</b>	Biology— Structure and Function

**Factual knowledge to be taught and assessed (including subject specific vocabulary)**

To **define** and state examples of tissues, organs and organ systems. **Explaining** the hierarchy of organisation in the multicellular organism.

To **Describe** the mechanism of breathing to move air in and out of the lungs, **explain** using a pressure model to evaluate the movement of gases, including simple measurements of lung volume.

To **state** the structure of plant which allows is to carry out gas exchange, **explain** how a plant is adapted to carry out this role.

To **describe** the processes of inhaling and exhaling, **explain** the difference between breathing and respiration.

**State** the structure of the skeleton, **describing** the functions of the skeletal systems.

**Skills and concepts to be developed**

Recognise different variables in a variety of experiments.

**Formative Assessment one:**

FT1a – Key word spellings/pronunciation + Glossary

**Formative Assessment two:**

FT2 – Structure & Function

(Application of knowledge)

**Summative Assessment:**

End of cycle test

This test will cover questions from this topic and current cycle topics to check understanding.

**Link to prior learning:**

Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.

**Literacy and Numeracy:**

**How will high standards be promoted in this module?**

**Literacy -**

FT1a – spellings, pronunciations and definitions of key terms

FT1b – Use of key words in sentences

FT2 – Extended answer question in final task that requires pupils to apply their knowledge

**Numeracy** –Measuring lung capacity

**Link Forward: Where next for learning?**

**B1** – Cells & Organisation

Cells, exchanging materials

**B3** – Organisation & the digestive system

Tissues and organs, digestive system

**B4** – Organising animals and plants

<b>Subject</b>	Science
<b>Term</b>	Cycle 2
<b>Duration (approx.)</b>	7 lessons
<b>Module</b>	Physics—Forces

**Factual knowledge to be taught and assessed (including subject specific vocabulary)**

**Explain** what forces do to objects, **Describe** the difference between a contact & non-contact force.

**Describe** how forces interacting with an object can affect its motion. **Explain** how mass affects this.

**Describe** the effect of drag forces and friction. **Explain** why drag forces and friction arise.

**Describe** the effects of gravitational forces on the earth. **Evaluate** the difference between weight and mass.

**Describe** the difference between balanced & unbalanced forces. **State** situations where forces are balanced and **Explain** why speed or direction of motion can change.

**State** Hooke’s law equation. **Describe** how the extension is linear. **Relate** to examples.

**Skills and concepts to be developed**

Recognise different variables in a variety of experiments.

**Formative Assessment one:**

Use of key words in a synoptic paragraph linked to the module.

**Formative Assessment two:**

FT2 – Forces  
(Application of knowledge)

**Summative Assessment:**

End of cycle test

This test will cover questions from this topic and previous topics to check understanding.

**Link to prior learning:**

Students will have a common understanding of the forces used in day to day life – push and pull.

Forms of energy from cycle 1 – Kinetic / Gravitational potential energy.

**Literacy and Numeracy:**

**How will high standards be promoted in this module?**

**Literacy -**

FT1a – spellings, pronunciations and definitions of key terms

FT1b – Use of key words in sentences

FT2 – Extended answer question in final task that requires pupils to apply their knowledge

**Numeracy –**

Drawing and interpreting graphs from data collected

**Link Forward: Where next for learning?**

**P8** – Forces in balance

**P9** – Motion

**P10** – Force & Motion

**P11** – Force & Pressure