SBSP PROGRESSION OF COMPONENT KNOWLEDGE THROUGH SCIENCE UNITS

CHEMISTRY – ROCKS

Year 3 NC links:

- compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
- describe in simple terms how fossils are formed when things that have lived are trapped within rock
- recognise that soils are made from rocks and organic matter

Year 3 Component Knowledge

- Understand that igneous rocks come from beneath the Earth's surface
- Explain how igneous rocks are formed on Earth's surface
- Explain the difference between intrusive and extrusive igneous rock
- Know the three types of rock that are formed on Earth
- Identify the properties of rocks by carrying out tests
- Explain the difference between igneous, sedimentary and metamorphic rocks following an investigation
- Identify the different types of weathering
- Define the different types of weathering and know the effects they have on rocks
- Explain the effects weathering has on rocks and evaluate the best type of rocks to use for certain tasks
- Understand that water can cause rocks to erode
- Explain how water causes rocks to erode
- Explain how water causes rocks to erode and why it is important to understand this
- Understand what a fossil is
- Understand how a fossil is created
- Explain how a fossil is created
- Name some different types of soil
- Describe the properties of different soils
- Research which type of soil certain flowers and vegetables grow better in

Working Scientifically Component Knowledge

- Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units
- Using a range of equipment, including thermometers and data loggers
- Identifying differences, similarities or changes related to simple scientific ideas and processes

Key Vocabulary

- extrusive igneous rock, igneous rocks, intrusive igneous rock, magma, crystals
- sandstone, marble, metamorphic rock, limestone, sedimentary rock
- chemical weathering, weathering, physical weathering, acid rain, biological weathering
- texture, erosion, receding, appearance, submerged
- sediment, amber, embedded, fossil, extinct
- fragments, decompose, clay soil, sandy soil, chalky soil

KS3 NC links:
The composition of the Earth. The structure of the Earth. The rock cycle and the formation of igneous, sedimentary and metamorphic rock