Springfield School

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| Blackbirds Class Medium Term Planning for Science 1 | |
| Topic: North and South America and A Summer of Sport | Vocabulary: Rock  Clay  Hard  Erosion  Soil  Fossil  Igneous  Metamorphic  Sedimentary |

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| **Lesson 1 ‘link it’**  **Rocks**  Exposition – Rocks  Groups- To explore a range of rocks in and around school by going on an adventure walk to find rocks. Take photographs and drawings of the rocks. Use some samples to explore the properties of rocks.  Children to categorize properties of rocks. Draw images of rocks, annotate/ cut and stick properties  Plenary – Share work. | **Lesson 2 ‘learn it’**  **Types of Rocks**  Exposition – Types of rocks  Groups – To explore a range of rocks and name the different types. Explore where they can be found. Draw pictures of the rocks and where they are found.  Plenary – Share work. | **Lesson 3 ‘learn it’**  **Rock Strength**  Exposition – Explore the strength of rocks  Groups – To explore test the strength of rocks by completing an experiment to see how strong each different type of rock is.  Plenary – Share work. | **Lesson 4 ‘learn it’**  **Erosion**  Exposition – Explore erosion  Groups – To explore the effect of erosion. Explore the effects of erosion by using moving water across clay. Set up water trays and syringes.  Plenary – Share work. |
| **Lesson 5 ‘learn it’**  **Rocks at Home**  Exposition – Explore the use of rocks in the home  Groups - To think about where in your house there are rocks. Indicated on a picture where rocks maybe used in a home. Explore the different uses of rocks.  Plenary – Share work | **Lesson 6 ‘learn it’**  **The Earth’s Core**  Exposition – Explore the different layers of the earth  Groups - To explore and label the different layers of the earth. Understand that the temperature of the earth changes at each layer.  Plenary – Share work | . |  |

Take the objectives for the LO stickers from this section

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| Substantive Knowledge (Content) | Disciplinary Knowledge (Skills) |
| **Observing and Measuring Changes**  **Children can:**  a make systematic and careful observations;  b observe changes over time;  c use a range of equipment, including thermometers and data loggers;  d ask their own questions about what they observe;  e where appropriate, take accurate measurements using standard units using a range of equipment.  **Identifying, Classifying, Recording and Presenting Data**   |  | | --- | | Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions.  Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.  **Children can:**  **a** talk about criteria for grouping, sorting and classifying;  **b** group and classify things;  **c** collect data from their own observations and measurements;  **d** present data in a variety of ways to help in answering questions;  **e** use, read and spell scientific vocabulary correctly and with confidence, using their growing word reading and spelling knowledge;  **f** record findings using scientific language, drawings, labelled diagrams, keys, bar charts and tables. | | * 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. |

Progression of Learning

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| ‘Link It’ | ‘Learn It’ | ‘Check It’ | ‘Show It’ | ‘Know It’ |
| Previous learning of pupils   * Knowledge of rocks * Observations of rocks in the immediate environment | Activities provided during lesson  Resources  **PPTs**  **Pictures**  **Seeds**  **Plants**  Activities to explore –  - pictures of rocks  - rocks | Independent activities linked to lesson  Resources  **PPTs**  **Books**  **Pictures**  Activities-  -Rocks  - Pictures of rocks  Opportunities to demonstrate knowledge | How will the pupils share knowledge during or end of lesson  **Explore and discuss photographs of lessons**  Share and compare work | Retrieve or generalization of learning after lesson   * Understand how rocks are formed * Understand the different layers of rocks * Demonstrate some knowledge of rock formation and erosion |