Year 3 – Summer 2 - Rocks

Things to include each half term:
1 x active learning
1 x outdoor science lesson
3 x experiments/investigations
1 x child-led investigation
3 x examples of working scientifically

Science display:
Key words, scientific questions, quotes from children, parts of a plant, photos, fact cards.

Science Adventure
Medium Term Planning

Week 1:
compare and group together different kinds of rocks on the basis of their appearance and simple physical properties in the local environment

- KWL grid
- Give out rocks: find someone with the same rock as you, find someone with a rock with a similar quality – get into groups – active learning
- Explore how different rocks are formed and look at the difference between natural and human-made rocks – sedimentary, igneous and metamorphic: https://www.bbc.co.uk/bitesize/topics/z9bbkqt/articles/zsgkdmn
- They examine pictures familiar rocks - chalk, diamond, sandstone, slate, granite, flint, marble and limestone - and match them to their descriptions and physical properties. Guess the rock in the bag: Active learning.
- using a hand lens or microscope to help them to identify and classify rocks according to whether they have grains or crystals, and whether they have fossils in them.
- Draw the rocks – photograph and label properties

Week 2:
compare and group together different kinds of rocks on the basis of their appearance and simple physical properties in the local environment

- What are the uses of these rocks?: https://www.stem.org.uk/resources/elibrary/resource/32188/teeth-springs-rocks-and-other-topics (at 4.25)
- Observing rocks in local environment (go for a walk in and out of school) and explore their uses, where they are found and how and why they might have changed over time
- Experiment: test hardness, if their porous and weight and group rocks based on this. Can different rocks be scratched with a nail, are porous, or can float in water.

Week 3:
describe in simple terms how fossils are formed when things that have lived are trapped within rock

- Play 'fossil hunters'- active learning.
- Pupils discuss the different kinds of living things in fossils: https://www.bbc.co.uk/bitesize/topics/z9bbkqt/articles/z22g7p3
- explore how fossils are formed in sedimentary rock: https://www.bbc.co.uk/bitesize/topics/z9bbkqt/articles/z2ym2p3
- Children create their own fossil and then draw their own diagrams of the provess and write their own descriptions or make a drawing of what the organisms might have looked like when it was alive (SEN?).

Week 4:
recognise that soils are made from rocks and organic matter

- They can raise and answer questions about the way soils are formed: https://www.bbc.co.uk/bitesize/topics/z9bbkqt/articles/ztvbk2p
- Look at sandy, silty and clay soils. What are the differences? How do you think they were formed. Explain in books.
- Children examine a soil sample. They identify differences and similarities, looking for sand, plant parts, water and minibeasts. They mix it with water inside a bottle, then allow it to settle. They draw and label its initial appearance, and then its appearance after several days.

Week 5:
recognise that soils are made from rocks and organic matter

- Pupils to explore different soils and identify similarities and differences between them (use week 2 lesson as a model)
- Child-led: to decide how to test how soils are different they could investigate what happens when rocks are rubbed together or what changes occur when they are in water.

Week 6:

- Quiz
- KWL grid
- Assessment

Use Mary Anning Monologue and write a diary as her if finished.