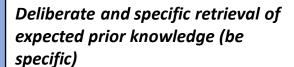
SUBJECT: Chemistry YEAR: 8 MTP TITLE: Earth HALF TERM: 2/3 NO. OF LESSONS (approx): 10



Retrieval should occur regularly throughout the learning journey:

Awareness of different types of rocks

- Earthquakes are natural disasters that cause devastation.
- Volcanoes release lava onto the surface of Earth, which is molten rock.
- Knowledge that fossils living things that have died and are encased in rocks

Academic transformation (be specific)

Your core curriculum must do all of the following:

- the structure of the Earth a solid outer crust with a mostly solid mantle, and liquid metal outer core and solid inner core.
- The rock cycle and the formation of igneous, sedimentary and metamorphic rocks
- Tectonic plates and their movement by convection currents in the mantle.
- How rock formations and natural structures form by erosion and weathering.

Personal transformation (2 or 3)

Deliberately inviting students and our community to enrich learning by sharing their experiences, history and first hand accounts. Explicitly choose application opportunities for learners to:

- Learn about the earthquakes in Turkey and Syria and it's causes.
- How scientists discovered the Earth's structure using seismic waves.
- · Pangea and continental drift.
- Link to careers in geology

Can I Learning Questions

Can I describe the structure of the Earth?
Can I explain the movement of tectonic plates?
Can I explain how rocks and structures can erode over time?

Can I compare the different types of weathering? Can I describe how igneous rocks are formed? Can I describe how sedimentary and metamorphic rocks are formed? Can I describe the stages in the rock cycle?

Literacy

Key vocabulary

Igneous, metamorphic, sedimentary, magma, mantle, tectonic, convection.

Disciplinary reading

News articles about recent Earthquakes/volcanoes (will need updating regularly)

Classroom talk

Describing the stages in the rock cycle

Misconceptions

- Earth is a solid sphere (Earth has solid and liquid layers)
- All rocks are the same (There are 3 different types of rock).
- Idea of rocks being permanent and unable to change
- Mantle is a liquid (The mantle is a plastic-like solid which flows EXTREMELY slowly)
- Obsidian is a chemical reaction between lava and water (obsidian is formed when lava is cooled extremely quickly, it does not react with the water)

