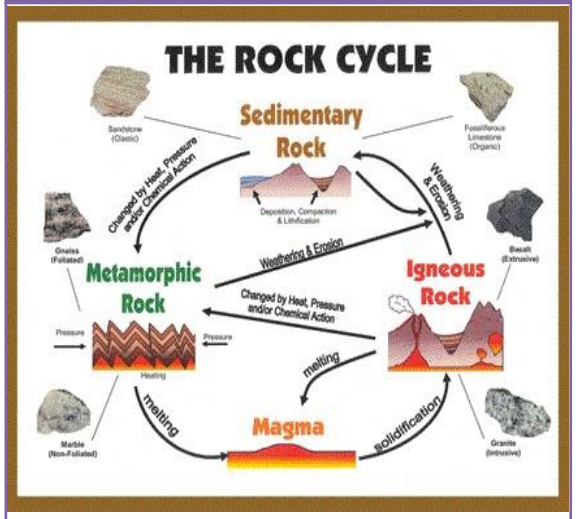
NEWARK HILL ACADEMY

Year 3: Autumn Term 1

How do we know dinosaurs existed?

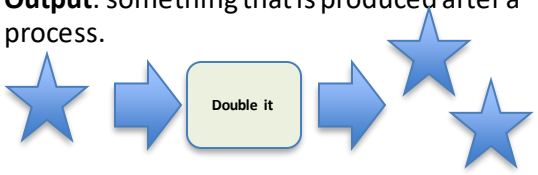
The Rock Cycle – working scientifically



Computing: Connecting Computers

Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.

Input: something that is put in to be processed.
Process: a series of events or steps that act on the input
Output: something that is produced after a process.



Mary Anning

- She was the first recognized female paleontologist.
- She was born in 1799 in Dorset
- She died in 1847
- She learnt from her father how to carefully extract fossils without damaging them and then sold them for small sums of money.
- She collected a large variety of marine dinosaur fossils and her collection is now on display at the Natural History Museum in London.

Mary Anning

Key Vocabulary

Rocks	A natural substance, made up of one or more materials.
Peat	Is formed when a plant material does not fully breakdown in acidic conditions, with no air.
Permeable	Allows liquids or gases to pass through it.
Igneous	Rock made solid from lava or magma.
Sedimentary	A rock that has formed from sediment deposited by water or air.
Metamorphic	A rock that has undergone transformation by heat, pressure, or other natural agencies, e.g. in the folding of strata or the nearby intrusion of igneous rocks.
Fossils	A trace or remains of an ancient living thing.

Art

Warm colours: orange, red and yellow are warm colours because they remind us of the sun.

Cool colours: blue, purple and green are cool colours because they remind us of the water.

Artist focus: Claude Monet
A French Impressionist who focused on painting nature.

Volcanic activity

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How do we know dinosaurs existed?

Characteristics of dinosaurs

Herbivores	Plant-eating dinosaurs varied in size. The largest being sauropods. They were also the longest and heaviest of all the dinosaurs to roam the earth.
Carnivores	Meat-eating dinosaurs had different features that supported their ability to tear up their prey. This included claws, shaped teeth and even beaks.
Hunters	Dinosaurs of all shapes and sizes were hunters. If we apply out knowledge of how modern-day animals hunted, then we can analyse how dinosaurs would have hunted. Some even hunted in packs.
Protection	Dinosaurs had features they could use to either defend themselves, attack fellow dinosaurs or protect vital parts. These include horns, claws and neck frills. An example of this includes the Pentaceratops who had a 3m long skull which include a neck frill that protected its neck.
Flight	Pterodactyls are probably the most famous flying dinosaurs. They were able to hang upside down just like bats.
Marine life	Under-water dinosaurs have been found in Peterborough! Their remains live at Peterborough Museum. They include the Plesiosaur and the Jurassic Marine Crocodile.
Adaption to habitats	Through the millions of years that dinosaurs roamed the earth, they learned to adapt to their habitats they were forever changing as they evolved. This included volcanic areas as well as deep jungles.





Vocabulary

Mesozoic	The Mesozoic Era is a time period that indicates what Earth was like 252 to 66 million years ago. It is also called the *Age of Reptiles and the Age of Conifers*.
Tyrannosaurus Rex	Species of dinosaur that lived throughout what is now western North America. A fun fact about the T-Rex is that its closest living relatives include the chicken and the ostrich who have T-Rex protein contents within their bloodstreams.
Pterodactyl	These dinosaurs were the first creatures to be identified as a flying reptile. They were carnivores who most likely ate small fish and other small animals. Their wings were made of skin and musde membranes.
Triceratops	These dinosaurs are giant herbivores who were famous for their gigantic horns and neck frills. They were about the same size of an elephant.

Dinosaur timeline

Triassic Period
(245-200 million years ago)

- The first dinosaurs branched off from the reptiles and colonized the land, air, and water.
- Huge seed ferns and conifers dominated the forests.
- Modern corals, fish, and insects evolved.
- Pangaea started to separate into Laurasia (today's Northern Hemisphere continents) and Gondwanaland.

Jurassic Period
(200-145 million years ago)

- The mass extinction that ended the Triassic allowed dinosaurs to flourish in the Jurassic. This was the golden age of dinosaurs.
- The earliest birds evolved from reptile ancestors.
- All the major groups of mammals evolved, but individual mammals were still small in size.
- Flowering plants appeared for the first time. New insects also evolved to pollinate the flowers.

Cretaceous Period
(145-65 million years ago)

- Dinosaurs reached their peak in size and distributions. Tyrannosaurus rex, pictured here, weighed at least 7 tons.
- By the end of the Cretaceous, the continents were close to their present locations. Earth's overall climate was warm; even the poles lacked ice.
- The period ended with the dramatic extinction of the dinosaurs.