Year 6: Paleontologists

1. Terms	Definitions
Offspring	Young animals or plants that are produced by the reproduction of a species.
Variations	Differences between animals or plants within a species.
Characteristics	Key features seen within a species.
Adaptation	A characteristic which changes to increase a living thing's chance of survival.
Habitat	Specific area where an animal or plant live.
Evolution	Adaption over a very long time.
Natural selection	The process where animals and plants are better adapted, so produce more offspring and survive.
Fossils	The imprint of a prehistoric plant or animal embedded in rock.
Classify	To sort things into groups.
Microorganism	A organism that can only be seen using a microscope, e.g. bacteria, mould and yeast.

4. Evolution and inheritance

Offspring

- All living things have offspring of the same kind, e.g. a human will have human offspring.
- Offspring will inherit features from their parents, but they will not be identical.

Adaptation

- Plants and animals adapt to their environment.
- If an environment changes quickly, some species might die because they cannot adapt quickly enough.
- If an environment changes slowly, species have time to adapt.
- They will then pass this adaptation on to their offspring.

Polar Bears	Cactus	Camel
		
They have white coats, so they are camouflaged in the snow.	They grow in the desert, so it stores water in its stem.	Stores water in its hump and has wide feet, so it can walk on the sand easily.

Evolution

- Over a long period of time, these adaptations may lead to a new species – this is called evolution. The fossils of giraffes millions of years ago show they had shorter necks, which have evolved to be longer so they can reach the leaves on taller trees.

2. Living things and their habitats

- Plants and animals are two main groups of living thing, but micro-organisms (e.g. bacteria and yeast) and fungi (e.g. mushrooms) do not fit into these groups.
- Animals can be divided into two main groups: **vertebrates** and **invertebrates.**
- **Vertebrates:** amphibians, reptiles, birds and mammals
- **Invertebrates**: insects, spiders, snails and worms.
- Plants can be divided into two main groups: flowering plants and non flowering plants.

Microorganisms growing on a Petri dish.

3.Charles Darwin (1809 – 1882)

- Darwin studied animals on the Galapagos Islands.
- He found that finches had different beaks depending on what food they ate.
- He came up with the ***Theory of Evolution and Natural Selection.***

5. Palaeontologists

- People who studies fossils, often dinosaurs.

Tyrannosaurus Rex

- The name means tyrant lizard
- They roamed the earth 65 million years ago.
- They may have been 12m long and 6m tall.
- **They were carnivores.** Their teeth were very sharp and could be 30cm long!
- 20 complete skeletons have been found in the USA.

6. Super Continent Pangea

Millions of years ago all continents were joined in one super continent that scientists now call Pangea (**the early Mesozoic era,** around 335 million years ago).
During the 165 million years of dinosaur existence, this supercontinent slowly broke apart into the continents we know today during the **Triassic period.**