Living things and their habitat Year 6

Biology

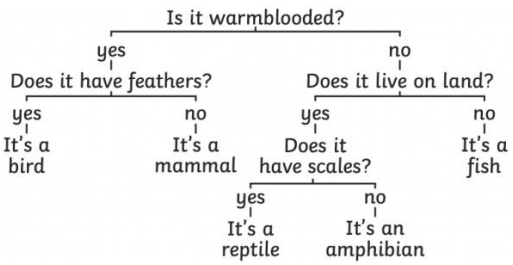
Review:

What should I already know?

- I recognise that living things can be grouped in a variety of different ways. (Year 1 & 4)
- I can use a classification key to help group, identify and name a variety of living things. (Year 4)

Essential knowledge

- I will be able to classify living things into broad groups according to their similarities and differences.
- I will be able to justify why I classified plants and animals based on their specific characteristics.
- I will know that broad classification groups, such as plants, animals and micro-organisms, can be subdivided.
- I will be able to explore a classification key in greater detail and generate my own.



Significant Scientists.
Carl Linnaeus is known as the father of taxonomy. His classification system is the main system used to this day

Etymology Variation	comes from Latin words meaning "to change" or "to make different,"

Vocabulary	
Biology	Biology is all about living things.
Working Scientifically	Is all about working like a scientist to answer scientific questions.

Vocabulary	
Variation	A slightly different version of something. The same but different
Characteristics	Special qualities or appearances that make something different to others
Species	A group of living things that can reproduce. Classify To sort things into different groups
Classify	To sort things into different groups.
Classification key	A series of questions about the characteristics of living things. It is used to identify and group.
Microorganism	An organism that can only be seen using a microscope. e.g. bacteria, mould and yeast.
Microscope	A piece of scientific equipment used to see very tiny (microscopic) things.
Taxonomist	A scientist who classifies different living things into categories

Working Scientifically

Our enquiry focus:				
Observing Changes Over Time	**Pattern Seeking**	**Identifying, Grouping & Classifying**	**Fair Testing**	**Research**

Skills I will need

- I will ask questions about strategies for grouping living things.
- I will observe animals and insects and consider what their key characteristics are.
- I will evaluate my classification keys and make changes to make sure they are useful.
- I will ask questions about and research microorganisms, reporting my findings.

Evolution and Inheritance Year 6

Biology

Review:

What should I already know?

- Fossils are formed when living things are trapped inside a rock. (Year 3)
- Changes to an environment can endanger living things. (Year 4)
- The life cycle of the different types of living things, including mammals, amphibians, birds and insects. (Year 5)

Essential knowledge

•**Adaptation** is when living things have evolved so that they are better suited to their environment: they have adapted to their environment

Living Things		Habitat		Adaptive Traits
polar bear		arctic		Its white fur enables it to camouflage in the snow.
camel		desert		It has wide feet to make it easier to walk in the sand.
cactus		desert		It stores water in its stem.
toucan		rainforest		Its narrow tongue allows it to eat small fruit and insects.

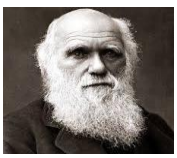
- **Natural selection** is when living things that are best suited to their environment survive and pass on their characteristics. At the same time, living things that are less suited to the environment die out. This process of **natural selection** through changing through **adaptation** is called **evolution**.

- **Fossils** can give us information about how living things have changed over time.

Etymology Evolution	comes from Latin, meaning "to unroll" or "unfold," like opening a scroll

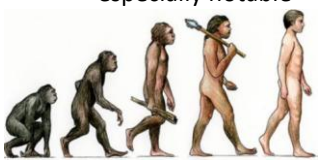
Vocabulary	
Biology	Biology is all about living things.
Working Scientifically	Is all about working like a scientist to answer scientific questions.

Vocabulary	
Change	When something becomes different
Evolution	A theory which states that all species developed from a previous species.
Adaptation	. When a living thing has changed in some way to become better suited to the environment where it lives.
Inheritance	Passing traits and characteristics from parents to offspring
Natural selection	When living things which are best suited to their environment survive and pass on their genetic traits



Significant Scientists.

Charles Darwin (1809 - 1882)is famous for developing the theory of evolution and natural selection. His research on moths, finches and tortoises are especially notable



Working Scientifically

Our enquiry focus:				
Observing Changes Over Time	**Pattern Seeking**	**Identifying, Grouping & Classifying**	**Fair Testing**	**Research**

Skills I will need

- I will ask questions about local animals and how they are adapted to their environment.
- I will compare how different living things have adapted to survive in extreme conditions.
- I will analyse the advantages and disadvantages of specific adaptations.
- I will research and create a report about an animal of my choice and how it's adapted