

Berkswell CE Primary School

Year 6 – Geography – Secrets of the Amazon (South America)



| Vocabulary | |
|---------------------------|--|
| Agriculture | The science of farming and the methods that are used to raise and look after crops and animals. |
| Amazon River | A body of water that runs through the continent of South America. |
| Andes | Mountain Range in South America. |
| Canopy | A layer of overlapping trees and plants above the ground. |
| Deforestation | The destruction of trees over a large area. |
| Emergent layer | The top layer of the rainforest. There is a lot of sunlight and the tallest trees grow to this level. |
| Habitat | The natural environment where an animal or plant normally lives. |
| Indigenous | Belonging to the country in which they are found, rather than being brought there from another country. |
| Forest floor | The ground beneath the trees consisting of roots and soil. |
| Land use | How the people use the land to help themselves survive. |
| Plantations | Large areas of land used for one crop grown for money. |
| Settlements | Where people live in cities, towns and villages |
| Trade Links | Exchange of goods, crops, products for money between people and countries |
| Tribe | A group of people who live together, sharing the same language, culture, and history. |
| Tropical wet climate zone | Also known as a rainforest. It has predictably warm weather and regular rainfall. |
| Tropical forest biome | A hot moist area where, because of the year-long rain, vegetation is dense. |
| Understory layer | The layer of the rainforest underneath the canopy. It is hot and damp. Bushes and young trees grow here. |

| Layers of the Rainforest | |
|--------------------------|--|
| | <p>Reasons for Deforestation</p> <p><i>Palm oil</i> - produced in trees in the Amazon and used in salad dressings, washing powder and fuels.</p> <p><i>Cattle ranches</i>- around 10 million cattle in the Amazon region. Raised for consumption by humans.</p> <p><i>Medicinal plants</i>- curare is produced in the Amazon (used by surgeons)</p> |

| What will I know by the end of the unit | |
|---|---|
| What should I already know? | <ul style="list-style-type: none"> • South America is one of the seven continents. • It is surrounded by three oceans – Atlantic, Pacific and Southern Ocean • There are many different time zones and biomes. • The Equator runs through Brazil, Columbia and Ecuador. |
| NC Geography Objectives | <ul style="list-style-type: none"> • How to use an atlas, maps and globes to locate countries in different locations across the earth. • Describe and understand key aspects of human geography, including: types of settlement and land use. • Describe and understand key aspects of physical geography, including: rivers, mountains and deserts. • Describe and understand key aspects of physical geography, including: climate zones and biomes and vegetation belts. • Understand geographical similarities and differences through the study of human and physical geography of a region within South America. • Identify and discuss the key physical and human characteristics of North and South America, (for example: The Great Lakes, The Great Plains, The Sierra Madre mountain system and Gaucho culture.) • Locate South America and the countries within this continent. • Locate the major cities in South America. |

Map of South America and Famous Landmarks

| | |
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| | <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Andes Mountain Range</p> </div> <div style="text-align: center;"> <p>The Amazon River</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>The Inca Trail</p> </div> <div style="text-align: center;"> <p>Christ the Redeemer, Rio de Janeiro</p> </div> </div> |
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Berkswell CE Primary School

Year 6 – Science – Living things and their habitats (Classification)



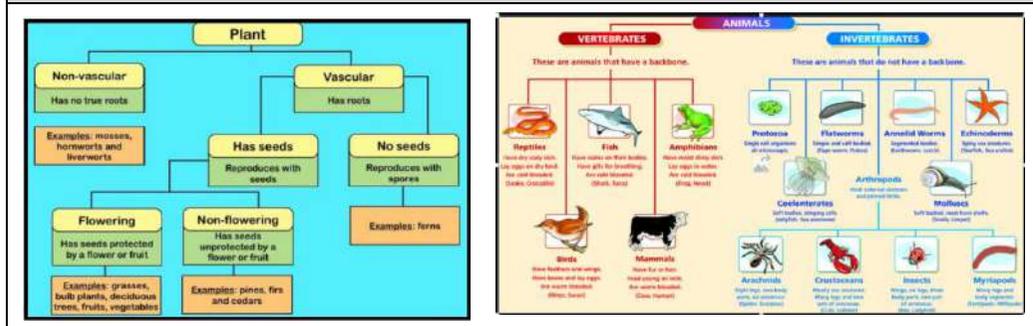
| Vocabulary | |
|----------------|--|
| algae | A single or multi-cellular organism that has no roots, stems or leaves and is often found in water. |
| amphibian | A cold-blooded vertebrate - frogs, toads, newts, salamanders and caecilians |
| arachnid | A group of small animals, similar to insects but with four pairs of legs, that include spiders, scorpions, ticks and mites |
| bacteria | Tiny little organisms that are everywhere around us. |
| classification | The arrangement of organisms into orderly groups based on their similarities and presumed evolutionary relationships. |
| crustacean | Mostly live in water with a hard shell and several pairs of legs |
| distinguish | Recognise a difference |
| fungi | A classification or group of living organisms. This means they are not animals, plants, or bacteria. |
| habitat | The natural home or environment of an animal, plant or other organism |
| invertebrate | An invertebrate animal does not have a backbone and 97% of creatures belong to this group. |
| mammal | A warm-blooded vertebrate usually distinguishable by hair or fur |
| micro-organism | An organism which is microscopic, making it too small to be seen by the human eye. |
| molluscs | An animal that has a soft body, no spine, and is often covered with a shell |
| organism | An individual animal, plant or single-celled life form. |
| species | A group of closely related organisms that are very similar to each other and are usually capable of producing offspring. |
| taxonomy | The science of naming, identifying and classifying organisms. |
| vertebrate | A vertebrate animal is one that has a backbone. |
| virus | A small infectious agent that replicates only inside the living cells of an organism. |

| What will I know by the end of the unit | |
|--|---|
| You should already know: | <ul style="list-style-type: none"> how to use classification keys recognise that living things can be grouped in a variety of ways the differences in the life cycles of a mammal, an amphibian, an insect and a bird the life process of reproduction in some plants and animals. |
| By the end of the unit you will be able to: | <ul style="list-style-type: none"> sort and group animals based on their characteristics recognise that animals can be divided into vertebrates and invertebrates recognise that plants can be divided into flowering and non-flowering plants know that plants and animals are two main groups but there are other living things that do not fit into these groups, e.g. micro-organisms know that plants can make their own food whereas animals cannot describe Carl Linnaeus and his development of his classification system name types of microorganisms e.g. bacteria, yeast, toadstools. complete descriptions on the characteristics of groups of organisms, using images as prompts |

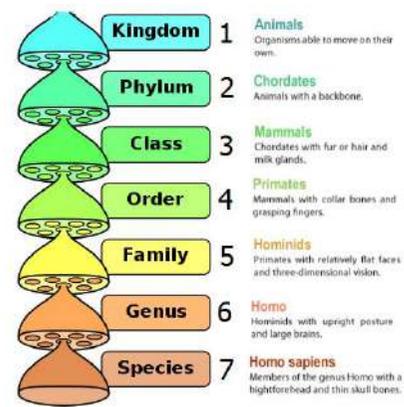


Carl Linnaeus – Born in Sweden 23rd May 1707. A leading light in the field of taxonomy. Famous for developing the first system for classifying animals effectively.

Classification of Plants and Animals



The Seven Levels of Classification



Micro-organisms

Microorganisms are very tiny living things. They are so small that they are not visible to the naked eye, so a microscope is needed to see them. Microorganisms can be found all around us. They can live on and in our bodies, in the air, in water and on the objects around us. They can be found in almost every habitat on Earth.



Berkswell CE Primary School
Year 6 – Science – Evolution and Inheritance



| Vocabulary | |
|-------------------|--|
| adaptation | a change in structure or function that improves the chance of survival for an animal or plant within a given environment |
| ancestor | an early type of animal or plant from which a later, usually dissimilar, type has evolved |
| biodiversity | a wide variety of plant and animal species living in their natural environment |
| breeding | the process of producing plants or animals by reproduction |
| characteristics | the qualities or features that belong to them |
| environment | all the circumstances, people, things, and events around them that influence their life |
| evolution | a process of change that takes place over many generations, during which species of animals, plants, or insects slowly change some of their physical characteristics |
| extinct | no longer has any living members, either in the world or a particular place |
| fossil | the hard remains of a prehistoric animal or plant that are found inside a rock |
| generation | the act or process of bringing into being; through reproduction , especially of offspring |
| inherit | you are born with a characteristic because your parents or ancestors also had it. |
| maladaptation | the failure to adapt properly to a new situation or environment |
| mutation | characteristics that are not inherited from the parents or ancestors and appear as new characteristics . |
| natural selection | a process by which species of animals and plants that are best adapted to their environment survive and reproduce , while those that are less well adapted die out |
| offspring | a person's children or an animal's young |
| reproduction | when an animal or plant produces one or more individuals similar to itself |
| species | a class of plants or animals whose members have the same main characteristics and are able to breed with each other |
| survive | continue to exist |
| theory | a formal idea or set of ideas that is intended to explain something |
| variation | a change or slight difference |

| What will I know by the end of the unit | |
|--|--|
| What is evolution? | <ul style="list-style-type: none"> Evolution is a process of change that takes place over many generations, during which species of animals, plants, or insects slowly change some of their physical characteristics. This is because offspring are not identical to their parents. It occurs when there is competition to survive. This is called natural selection. Difference within a species (for example between parents and offspring) can be caused by inheritance and mutations. Inheritance is when characteristics are passed on through generations. Mutations in characteristics are not inherited from the parents and appear as new characteristics. |
| How do we know about evolution? | <ul style="list-style-type: none"> Evidence of evolution comes from fossils - when these are compared to living creatures from today, palaeontologists can compare similarities and differences. Other evidence comes from living things - comparisons of some species may reveal common ancestors. |
| What is adaptation? | <ul style="list-style-type: none"> Adaptation is when animals and plants have evolved so that they have adapted to survive in their environments. For example, polar bears have a thick layer of blubber under their fur to survive the cold, harsh environment of the Arctic while giraffes have long necks to reach the leaves on trees. Sometimes adaptations can be disadvantageous. One example of this can be the dodo, which became extinct as it lost its ability to fly through evolution. Flying was unnecessary for the dodo as it had lived for so many years without predators, until its native island became inhabited. |

Charles Darwin

Charles Darwin, an evolutionary scientist, studied different animal and plant **species**, which allowed him to see how **adaptations** could come about. His work on the finches was some of his most famous.

