

Year 5 Autumn Knowledge Organisers



Knowledge Organiser

Year 5 - Our Blue Planet

Careers connected to this unit: marine biologist, conservation officer, oceanographer



Lesson Sequence



1. Why are our oceans important?



2. What is the water cycle?



3. Are all rivers similar?



4. How do people use rivers?



5. What challenges does our blue planet face?

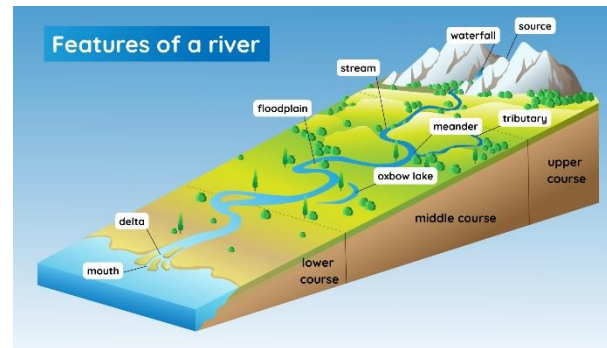


6. Assessment: How can we help our blue planet?

Continents and Oceans



Features of a river



Rivers begin at the **source**, usually in a mountain. **Streams** and **tributaries** join to make the main **channel** of the river, which **meanders** towards the **mouth** of the river, where it meets an ocean, sea or lake.

Challenges for our blue planet

Our planet is going through many changes. Oceans and continents are under threat due to climate change. As ocean temperatures rise, all kinds of marine life are affected. Pollution, overfishing and other human impacts are also harming life in our oceans, seas and rivers.



Conservation is all about taking care of the natural world by protecting our air, water, plants, animals and the resources we use from nature. By practising conservation, we can make sure Earth stays a wonderful home for all living things!

The Water Cycle



This is the process where water circulates between the Earth's oceans, the atmosphere and land.



Lesson Sequence



1. Who were the Vikings?



2. How, where, and why did the Vikings travel?



3. What did the Vikings believe in?



4. Does Alfred the Great deserve his name?



5. Why did the Viking Age end?



6. Assessment: Are we right to remember the Vikings as raiders?

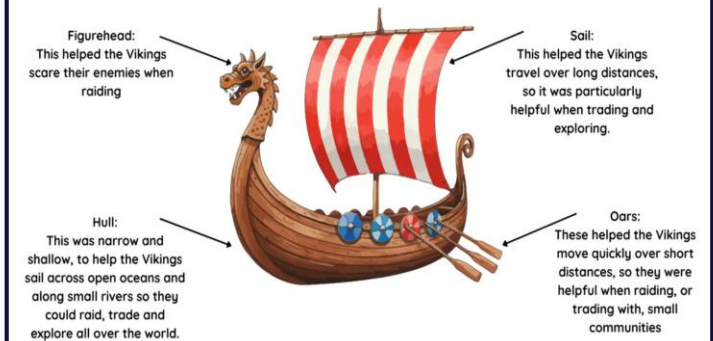
Lindisfarne - the first Viking raid in Britain

- In 793 CE, Vikings raided the island of Lindisfarne in Northumbria.
- The only thing on the island was a monastery.
- It had lots of valuable objects, including gold crosses and books decorated with jewels.
- Many monks were killed or taken away as slaves.
- All the treasures were taken, and the inside of the church was destroyed.



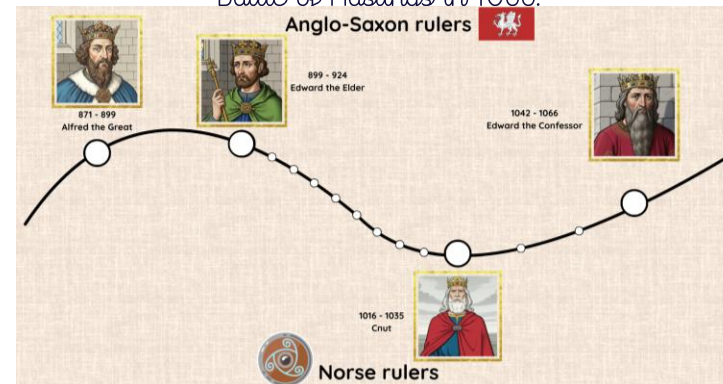
Longships

The Vikings used their longships to raid, trade, and explore across the world.



Rulers during this period

Alfred the Great stopped the Vikings from taking full control of England and instead set up the Danelaw. After his reign, England had both Anglo-Saxon and Norse rulers until the Battle of Hastings in 1066.



Norse beliefs

The Norse people believed in many gods who all had different roles. They believed the world was made of nine different places, including Asgard, where the gods lived, and Midgard, home of the humans.



Making connections

- What is 'The Golden Rule'?
- Can you recall any Christian values?



New knowledge I need to remember

- ◇ As citizens, we can make a positive difference to certain injustices in the world
- ◇ In life, sometimes things are unfair
- ◇ The values and commitments that people have influence their decisions and behaviour



Key words

Old/New Testament, worship, prayer, values, morals, responsibility, faith, empathy, self-reflective, fairness, unfairness, justice, forgiveness, poverty, fair-trade

Future learning: Find out why Christians believe that following God can bring Justice.

Skills

- Make links
- Describe
- Make reasoned judgements
- Relate to life
- Debate

Making connections

- What is a holy and loving God like?
- What is the Trinity?



New knowledge I need to remember

- ◇ The story of Moses and the Exodus shows how God rescued his people from slavery in Egypt
- ◇ Christians connect the story of Moses and the Exodus to how Jesus' death and resurrection also rescued people from sin
- ◇ Christians try to serve God and bring freedom to others



Key words

Moses, Israel, Abraham, plague, Hebrew, Commandment, covenant, sin, Old/New Testament

Future learning: Find out about the importance of living with good values.

Skills

- Make links
- Describe
- Make reasoned judgements
- Relate to life
- Debate



Knowledge Organiser: Living Things and their Habitats Year 5



Careers connected to Living Things and their habitats:
Zoologist, Veterinary, Surgeon, Biologist

Lesson Sequence



1. Understand the life processes of a plant.



2. Understand the life cycles of mammals.



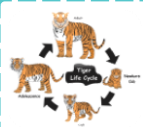
3. Compare the life cycles of insects and amphibians.



4. Understand the life cycle of birds and reptiles.



5. Know about the life and work of Jane Goodall and David Attenborough.

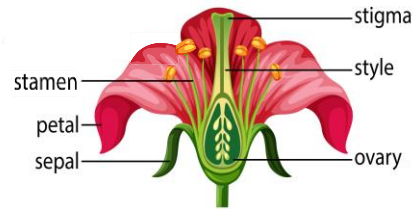


6. Research and present the life cycle of a creature.

Reproduction in plants

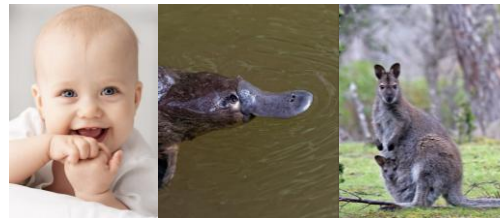
Plants contain both male and female cells. Some need to be pollinated in order to be fertilised. Others use asexual reproduction to reproduce.

Common Flower Parts



Mammals

Mammals reproduce and give birth to live young. They can be either placental, monotreme or marsupial.



Birds and Reptiles

Most birds and reptiles are born when the mother lays eggs and incubates them until they are ready to hatch. Once the egg is hatched, the baby is looked after by the mother before leaving the nest.

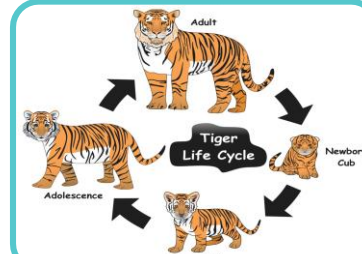
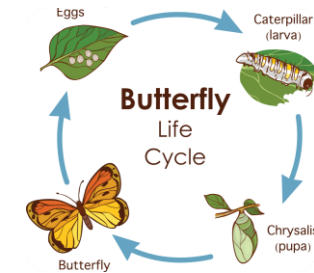
Important People

David Attenborough and Jane Goodall study living things. They present the life of animals on earth and have made important documentaries so we can learn about the world around us.



Metamorphosis

Amphibians are a bit different. Many are born live or underwater. They complete a metamorphosis as adults and can live and breathe on land. Metamorphosis is the change in body form and habits during the life cycle.





Knowledge Organiser: Year 5 Properties of Materials



Lesson Sequence



1. Explore properties of materials



2. Explore thermal conductors and thermal insulators



3. Explore hardness of materials



4. Discover materials that are soluble in water



5. Investigate the solubility of materials



6. Explore how mixtures can be separated by filtering, sieving, evaporating or magnets

Properties of Materials

conducts energy	
insulates energy	
transparent	
waterproof	
durable (strong)	
magnetic	

Everyday Materials

Metal saucepans **conduct** heat to warm food.



Wooden spoons and plastic handles **insulate** heat so hands do not get burned.

Soluble Materials

Some solids **dissolve** in water (**SOLUBLE**).

coffee



sugar



salt



jelly



Some solids do not **dissolve** in water (**INSOLUBLE**).

pepper



sand



wax

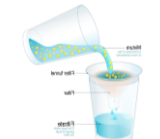


Separating Materials

Sieving



Filtering



Magnetism



Magnetic metals:

- iron
- nickel
- steel