



Yorkshire
Wildlife Trust

Educator resources

ADAPTATIONS

This package has been designed to give a brief introduction into how creatures of the rocky shore and estuaries are adapted to living in their environment.

For your use we have attached some related further topics to allow for you to expand on any specific areas or to help tailor any learning or activities to the aptitude of the student.

We have also included suggested subjects which can be linked to this topic.

Topics within the key stages which relate to this topic:

[Key stage 1/2](#)

Year 1

Animals including humans

- Identify and name a variety of common animals including fish, amphibians, reptiles, birds and animals

Year 2

Living things and their habitats

- Identify that most things live in a habitat to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other
- Identify and name a variety of plants and animals in their habitats, including micro-habitats

Plants

- find out and describe how plants need water, light and a suitable temperature to grow and stay healthy

Year 3

Animals including humans

- Identify that humans and some animals have a skeleton and muscles for support, protection and movement

Year 4

Living things and their habitats

- Recognise that environments can change and this can sometimes pose dangers to living things

Year 6

Evolution and inheritance

- Identify how plants and animals are adapted to their environment in different ways and that adaptation may lead to evolution.

Geography – Place Knowledge – in relation to Yorkshire

- Understand geographical similarities and differences through the human and physical geography of a small area of the UK, and of a small area of a non-European country
- Use basic geographical vocabulary to identify key physical features such as beach/cliff/coast/forest/hill/mountain/sea/ocean/river/soil/valley/vegetation/season/w eather
- Use basic geographical vocabulary to identify key human features such as city/town/village/factory/farm/house/office/port/harbour/shop

Human and physical geography – in relation to Yorkshire

- Describe and understand key aspects of physical geography, including: climate zones/ biomes and vegetation belts/ rivers/mountains/ volcanoes and earthquakes/ and the water cycle
- Describe and understand key aspects of human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water

English

- Introducing new terminology (see following glossary) associated with ecology
- Read words of more than one syllable that contain taught GPC's

Key stage 3/4

Relationships in an ecosystem

- How organism affect, and are affected, by their environment, including the accumulation of toxic materials
- The process of photosynthesis

Evolution, inheritance and variation

- The process of natural selection leading to evolution

Human and physical geography – in relation to Yorkshire

- Physical geography relating to geological timescale and plate tectonics; rocks, weathering and soils; weather and climate, including how the climate has changed since the last ice age; and glaciation, hydrology and coasts

English

- Pupils should continue to develop their knowledge of and skills in writing, refining their drafting skills and developing resilience to write at length. They should be taught to write formal and academic essays as well as writing imaginatively. They should be taught to write for a variety of purposes and audiences across a range of contexts. This requires an increasingly wide knowledge of vocabulary and grammar.

Citizenship – in relation to Yorkshire and SSI/SAC/MPA of Flamborough

- The roles played by public institutions and voluntary groups in society, and the ways in which citizens work together to improve their communities, including opportunities to participate in school-based activities
- Local, regional and international governance and the United Kingdom's relations with the rest of Europe, the Commonwealth, the United Nations and the wider world

Glossary

Adaptation = the process of change by which an organism or species becomes better suited to its environment

Camouflage = the natural colouring or form of an animal which enables it to blend in with its surroundings

Dislodged = knock or forced out of position

Environment = the surroundings or conditions which a person, animal or plant lives or operates

Exoskeleton = a rigid external covering for the body in some invertebrate animals, especially arthropods (like crabs)

Exposed = not covered or hidden

Habitat = the natural home or environment of an animal, plant or other organism

Holdfast = the root-like structure that keeps aquatic plants anchored to the substrate

Home scar = the space on a rock where a limpet will return to after feeding every time the tide retreats

Radula = a structure of tiny teeth used for scraping food particles off a surface and drawing them into the mouth

Photosynthesis = the process by which plants use sunlight to synthesize nutrients from carbon dioxide and water. Photosynthesis in plants generally involves the green pigment chlorophyll and generates oxygen as a by-product.

Predator = an animal that naturally preys, or eats, other animals

Taking the subject further...

We have a range of printable resources on our website to assist you in your teaching and learning. Categories include:

- Colouring sheets
- Crafts
- Spotter ID sheets
- Quizzes
- Activity booklets

The activities have been developed to allow participants to be creative, allowing pupils to *produce creative work, exploring their ideas and recording their experiences* in-keeping with national curriculum guidelines.

There is also the opportunity to improve computer skills through research for completing the activity booklets.

To link specifically with this topic we would especially recommend:

- the Sea shore Wildlife quiz
- 'The Sea and Me' activity booklet to help explore what the sea means to you and ways in which you can help to protect marine life
- The Paper plate crab for creative students

The resources can be found following the link here:

<https://www.ywt.org.uk/living-seas-centre/printables>