BBC BITESIZE FOR TEACHERS

KS2 Geography: Peatlands, wetlands and the carbon cycle

In partnership with Geographical Association

Video	Central or big idea	Think, work and apply like a geographer	Questions to explore	Key learning outcomes
KS2 Geography. Exploring UK locations: Peatlands, wetlands and the carbon cycle	Wetlands, such as peat bogs, are important natural environ-ments.	• Interconnect • Scale • Environment • Sustainability	• What is a wetland area? Where might they be found? • What kind of wildlife can be found in wetland areas? • Where can moss be found? What is it like? • Why are peatlands important? • What feelings might people have about the destruction of peatlands? • Is climate change affecting peatlands? • How can the UK's wetland areas be preserved?	• To know that raised bogs or peatlands are a type of wetland area. • To know that peatlands are important environments or habitats. • To know that peatlands are a carbon store that are under threat. • To know how to connect local and global issues. *Suitable for teaching geography at KS2 in England, Wales and Northern Ireland, and 2nd level in Scotland.*

Key geographical vocabulary and definitions	Suggested learning opportunities	Ideas for going further and links
Bog – areas where the ground is saturated or full of water and doesn't drain properly. Bogs form in cool places with plenty of rain. **Carbon dioxide** – otherwise known as C02. It's a green-house gas that's linked to global warming. **Carbon sink** – carbon that is stored in living or dead plant and animal cells and not in the form of carbon dioxide within the atmosphere. **Conservation** – protecting a natural environment, often to make sure species of animals or plants are not harmed. **Flooding** – the overflow of water onto land that is usually dry.	**1. Build a mini wetland or bog garden in your school** • Use the instructions from the Wildlife Trust to utilise a poorly-drained area of your school grounds to make a bog-garden. • Remember to avoid buying peat-based compost to use in your garden or bog.	**Endangered habitat research** • Provide pupils with links to news websites or online newspapers to find out about another endangered ecosystem or habitat and ask them to create a summary report about it to present to classmates.

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Flow country – found in the far north of Scotland, it is the most intact and extensive blanket bog in the world. **Greenhouse gas** – gas that traps escaping heat from the earth and rather than releasing it into space, keeps our planet warm and contributes to global warming. **Habitat** – a place that an animal lives, where it finds food, water, and shelter. There is a huge range of habitats across the planet, from deserts to rainforests. **Marsh** – type of grassy wetland that is rich in minerals. **Moss** – Moss is a type of plant able to grow in low mineral conditions. It doesn't rot away but builds up to form deep layers which is called peat. **Nature reserve** – a protected area where removing or destroying nature is not allowed. Often nature reserves are open to the public to enjoy and appreciate the scenery and wildlife. Peat-lands – an area formed over thousands of years that's made up of peat, which is a type of soil that forms in wet ground that doesn't drain properly. **Swamp** – a type of wetland with trees. **Wetlands** – areas where the ground is full of water and doesn't drain properly. Different types of wetlands include swamps, marshes, and bogs.	**2. Go on a moss hunt** • Moss doesn't just grow in reserves and bogs, it can be found all over the UK in rural and urban areas. Pupils could take a trip to a local woodland or nature reserve area and use magnifying glasses to get a close-up look at all the different types of moss and all the places it grows. • Provide pupils with a clipboard and paper with cup size circles drawn on. Ask them to sketch what they can see through their magnifying glass into the circles, adding annotations of the textures, colours, and any insects spotted. • Pupils could use a compass to investigate whether moss growing on vertical objects such as posts, walls, gravestones and trees does so facing a particular direction (this is usually north-facing as conditions stay damper due to receiving little or no direct sunlight). • Alternatively, if not possible within school time, this is something pupils could be encouraged to do with a parent/guardian or family member during their own time outside of school and they could bring in photos or drawings of their findings.	• Pupils should consider questions such as: What's the problem? Why is it happening? What could help/are there any practical solutions? Why is it important to care and do something? • Encourage them to find the habitat's location on a world map. • Once pupils have shared their investigations with the class, they could discuss whether there are any common problems or issues, and how this makes them feel. • Encourage pupils to consider what positive steps they and others can take to preserve the oceans to ensure this activity leaves them feeling empowered rather than anxious. This short film profiles a young conservationist called Georgie, who utilising her scuba diving and photography skills to inform marine management. This Bitesize Careers page offers guidance on becoming an apprentice conservation officer. KS2 Geography: A location in Europe - Veere in the province of Zeeland, Netherlands KS2 Geography: A location in Europe - Kinderdijk, Netherlands KS1/KS2 Primary Geography: Weather, climate and climate change