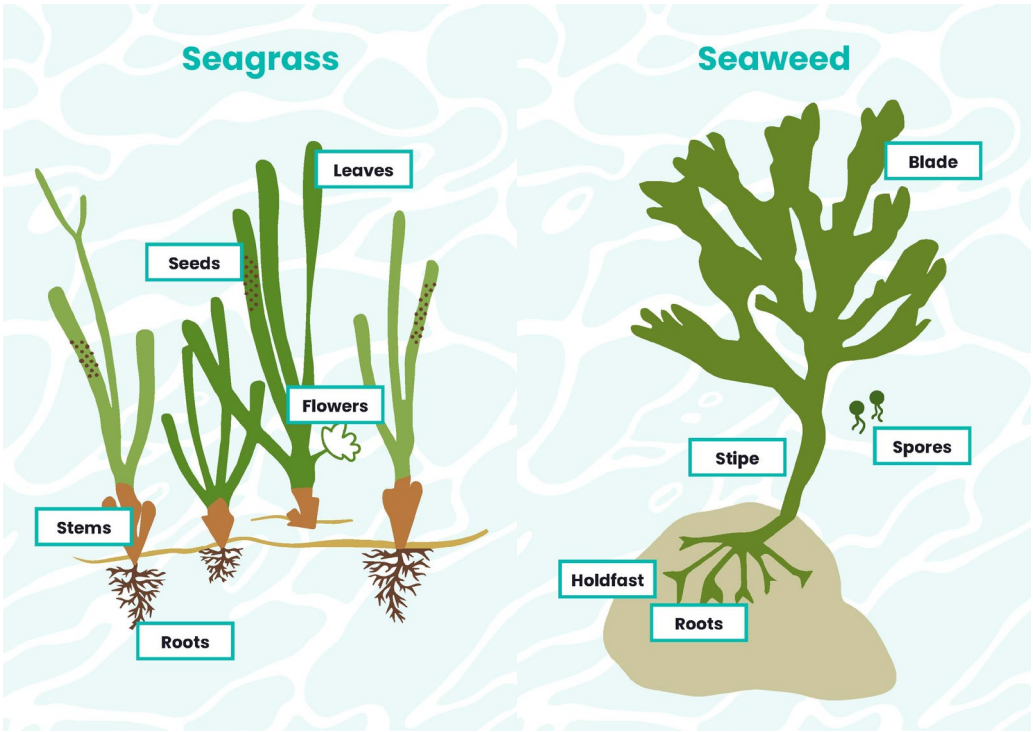
Seagrass Fact File

What is seagrass?

Seagrass is the only flowering plant in the ocean. It's found in calm, shallow, sunlit coastal waters around the world. When seagrass grows in large areas, the habitat it creates is described as a seagrass meadow or seagrass bed.

Eelgrass bed
© divedog

What makes seagrass a plant?



Seagrass plants use their leaves to photosynthesise and therefore need to grow in sunny, shallow waters. The veins/stem of seagrass transport nutrients and water around the plant, and the roots absorb nutrients and stabilise the plant in the seabed.

Seagrass can reproduce in one of two ways: they have flowers and therefore pollinate and disperse seeds; and their root system (rhizomes) can spread out under the seabed and shoot up new seagrass plants.

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Seaweed

Unlike seagrass, seaweeds aren't plants, but algae, which is a much simpler organism than a plant.

Large seaweeds like kelp use a **holdfast** to connect to hard substrates, rather than roots which connect to sediments. Seaweeds don't need to get nutrients from the soil – instead they get all their nutrients from the water through their **blades** (like leaves). Instead of moving nutrients around their structure through a stem, most seaweeds have a stem-like structure called a **stipe** to hold the structure up and help the blades get closer to sunlight. Smaller seaweeds don't have a stipe or stem structure. Seaweeds reproduce from **spores** rather than seeds.

Why are seagrass beds important?

- Seagrass provides, shelter, habitats and food for many creatures.
- Globally, seagrass beds are known for their value as fish nurseries for many important species, including flatfish and cuttlefish. They're also home to many bivalves, worms and starfish. In the UK, two rare and wonderful creatures live solely in seagrass beds, the spiny seahorse and stalked jellyfish.
- Seagrass photosynthesises and produces oxygen as well as storing carbon dioxide, helping to reduce climate change.
- The root systems of seagrass beds help to stabilise sediment helping to reduce coastal erosion, and improve water quality by filtering land-based nutrients.

Spiny seahorse
© Daniel Lamborn

Stalked jellyfish
© Natural England

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Threats to seagrass

Seagrass beds face many threats, including:

- Coastal development can harm seagrass directly, if building on seagrass beds, or indirectly through increased sedimentation, making it hard for seagrasses to photosynthesise.
- Sea level rise as well as rising sea temperatures due to climate change will alter marine conditions and may impact seagrass.
- Chemical pollution from land or ocean sources, such as farming and boat fuels, can affect the health of seagrass
- Seagrass beds are found in coastal shallow waters which can often be used by boat users. Anchors and boat moorings directly damage fragile seagrass beds.

How can we help protect seagrass?

There are many ways we can help protect seagrass. By making simple changes in our lives to reduce our carbon footprints, we can all help to protect the ocean and its wildlife from climate change.

We're partners on the **EU LIFE Recreation ReMEDIES** project, working with boat users to increase education and awareness about seagrass and installing Advanced Mooring Systems (AMS) which don't damage the seabed. As part of the project, we're also working with the Ocean Conservation Trust to plant seagrass beds to restore damaged areas.

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