PROJECT SEAGRASS

SPECIES HUNT
ACTIVITY GUIDE
AGES 11-14

OVERVIEW

This activity guide introduces the topic of species hunt. The activity in this guide allows you to explore the importance of identifying species in order to protect them.

KEY INFORMATION

- Outdoor activity
- Partner activity
- Time – 1 hour
- Practical

- **Lesson Objective:** to identify marine life and their preferred habitats
- **Curriculum links:** Geography/Biology/Creative arts

LEARNING TIPS

Check out our nature photography guide – no fancy equipment needed! Please share any favourite snaps with Project Seagrass! Any pictures with seagrass in can be uploaded to the Seagrass Spotter app to help scientists learn about seagrass.

This 'Species hunt' guide can be used with other habitat comparison Project Seagrass activities, such as '**Water filtration**', '**Microplastics**', '**Hide & seek**' and '**Geology**' guides, as well as sustainability activities such as '**Climate change**', '**Resource rampage**', '**Making changes**' and the '**Stakeholder meeting**' guides.

KEY WORDS

Dichotomous key – Series of questions with only two answers that help to identify an organism

Scientific name – This is a two-part formal name given to a species following a worldwide set of rules. For example, humans are '*Homo sapiens'.* The first word always has a capital and the whole name is always in italics

FUN FACT!

Seagrass meadows in the UK have 35 times more animals than bare sand!

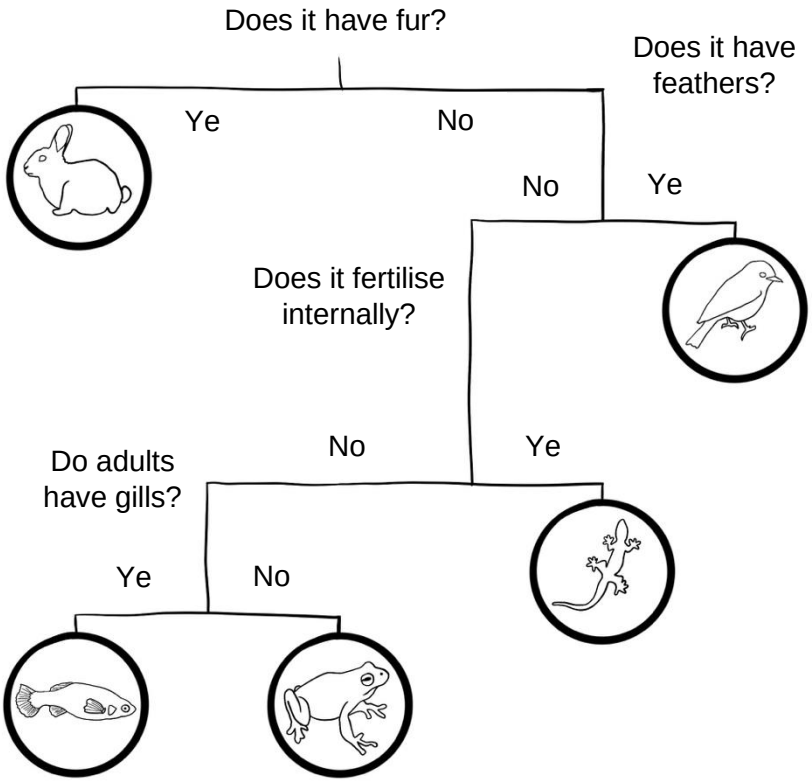
INTRODUCTION

There are huge amounts of incredible and diverse creatures in and around UK waves! These vary from tiny shrimp to basking sharks, whose mouths are a metre wide. Just like on land, each of these animals has a key role to play in keeping our seas healthy. This activity is all about getting a taste for life in and around the edge of our seas.

FUN FACT!

The common cuttlefish has three hearts!

One of the ways we identify different species is through using a **dichotomous key**, where a series of questions are asked about the animal with a yes or no answer, narrowing it to one species. A question might be something like ‘does it have feathers?’, if ‘no’ then the animal probably isn’t a bird.



Why?

Scientists need to know where different animals **live**, their **habits** and **population size** to be able to **protect** them. Think about how tricky it is to spot the animals, identify them and understand what they’re up to whilst you’re searching on the shore or snorkelling. Are you sure it’s a shore crab and not an edible crab? How do you know you’re not repeatedly spotting the same animal or simply not spotting it?

New techniques to look at marine wildlife are being developed all the time. Scientists now use techniques such as baited underwater video cameras, scuba diving, nets, traps, drones, animal tagging and even recording the noise of the ocean - they can translate dolphins chatting in clicks and whistles!

ACTIVITY:

1) On land, talk the class through some basic ID features such as type of animal (fish/bird/snail etc), colour, size, number of legs or fins etc. Use a couple of the species on the list as examples - such as pointing out how cod is a dull green with three fins on its back.

2) Encourage the class to think about how they will find the animals. Firstly, they'll need to consider where the animal lives. The species id card offers tips.

a. If the animal is best spotted from the shore, get them to think about whether they should look to the cliffs, the air, out to sea or in rock pools. If it's on the beach, then the strandline will be the best place to look. This is the line of seaweed and other bits left behind as the tide heads back down the beach.

b. If the animal is in the sea, then remember these top tips!

YOU WILL NEED:

Species hunt id cards and a pencil

A clip board (preferably waterproof, such as a dive slate)

For snorkelling:

Laminated species hunt id cards and white board marker

Wetsuits and swim wear

Snorkel and mask

Fins (optional)

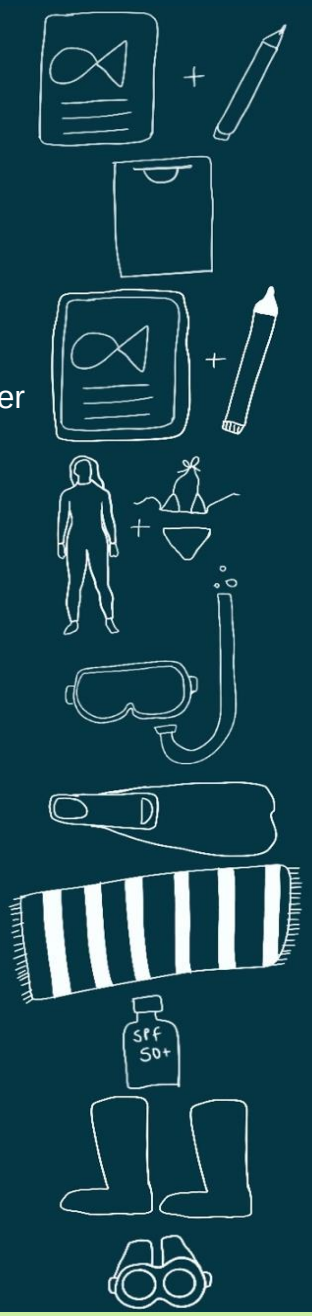
Towels

Reef safe sun cream

For shore searches:

Wellies and appropriate weather gear

Binoculars (optional)



HEALTH AND SAFETY

Do not disturb or touch wildlife!

Refer to our coast tips for advice on health and safety whilst searching for marine wildlife

i) The more you have your feet on the floor, the more you'll scare the animals away and the murkier you'll make the water.

ii) Move slowly in the water to avoid disturbing the animals.

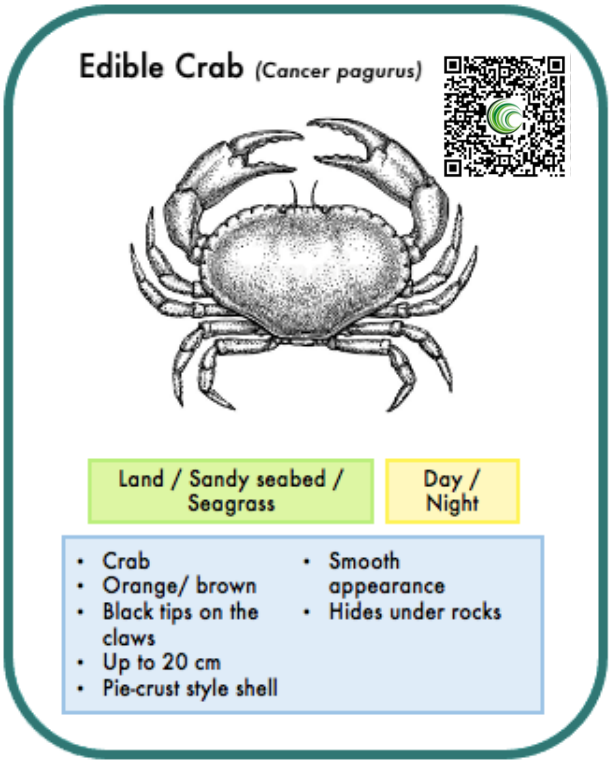
iii) Look for the shape of the animal rather than colour. Most animals try to match their colour to their surroundings to avoid being spotted.

iv) Check on the sea floor, as well as in between and on seagrass, seaweed and rocks, and straight out to sea.

v) Look closely at leaves and rocks for tiny critters!

vi) Patience and constant scanning are key!

3) Encourage the students to follow the QR codes to see some footage of the animals. Movement is a useful way to ID animals and will help them to know what they are looking for before getting to the beach.



Example of a species ID card, with the common name, scientific name, QR link to JD Scuba's species clip, line drawing and key identifying features and finding tip. Circle where and when found - multiple can be circled!

4) Check out the photography guide for anyone planning to bring a camera.

5) Snorkelling is best done on the low tide.

6) Give a full brief including safety rules, search area, risks, and communication signals. Check the coastal tips for more advice.

7) Begin the snorkelling session with a basic introduction on how to snorkel.

a. Attach the snorkel to the side of the mask so it doesn't keep falling off.

b. The mask goes over their eyes and nose so they can see!

c. Try not to breathe through their nose as it fogs up the mask. If it becomes foggy then give it a swill in the sea. If possible, offer baby shampoo - a small blob can be wiped around the mask and then rinsed out to stop the mask fogging up.

d. Practice breathing through the snorkel above the water, and then try with their mouths under but faces still out. Finally, try breathing through it with their face fully submerged.

e. Remind them that if they put their head too deep or there is a big wave that their snorkel might fill with water! If this happens, they just need to do a big blast of breath out to clear it, or they can let it drain above the water.

f. Remind them that there are lots of staff ready to help them and that they must keep close to their member of staff.

g. A surf or paddle board can be used as a flotation device to hold on to whilst they gain confidence.

h. For anyone completely unconfident in the water then many of the species can be found on shore, without getting wet.

i. Get out of the water if chilly or tired.

8) When they spot an animal, they can tick it off. Make a note of which habitat and when they found it!

9) Whilst in the water, the member of staff for each group should have a laminated or waterproof version of the species hunt list. The students can

come back to the staff member to check off what they have found. This is a good way of keeping them close too.

10) Ideally, conduct your hunt at two different habitat types so you can compare what you find. We recommend starting with the least complex habitat first so that everyone can get their eye in. For example, snorkel over a bare sandy seabed on the first day and over a seagrass meadow on the second day.

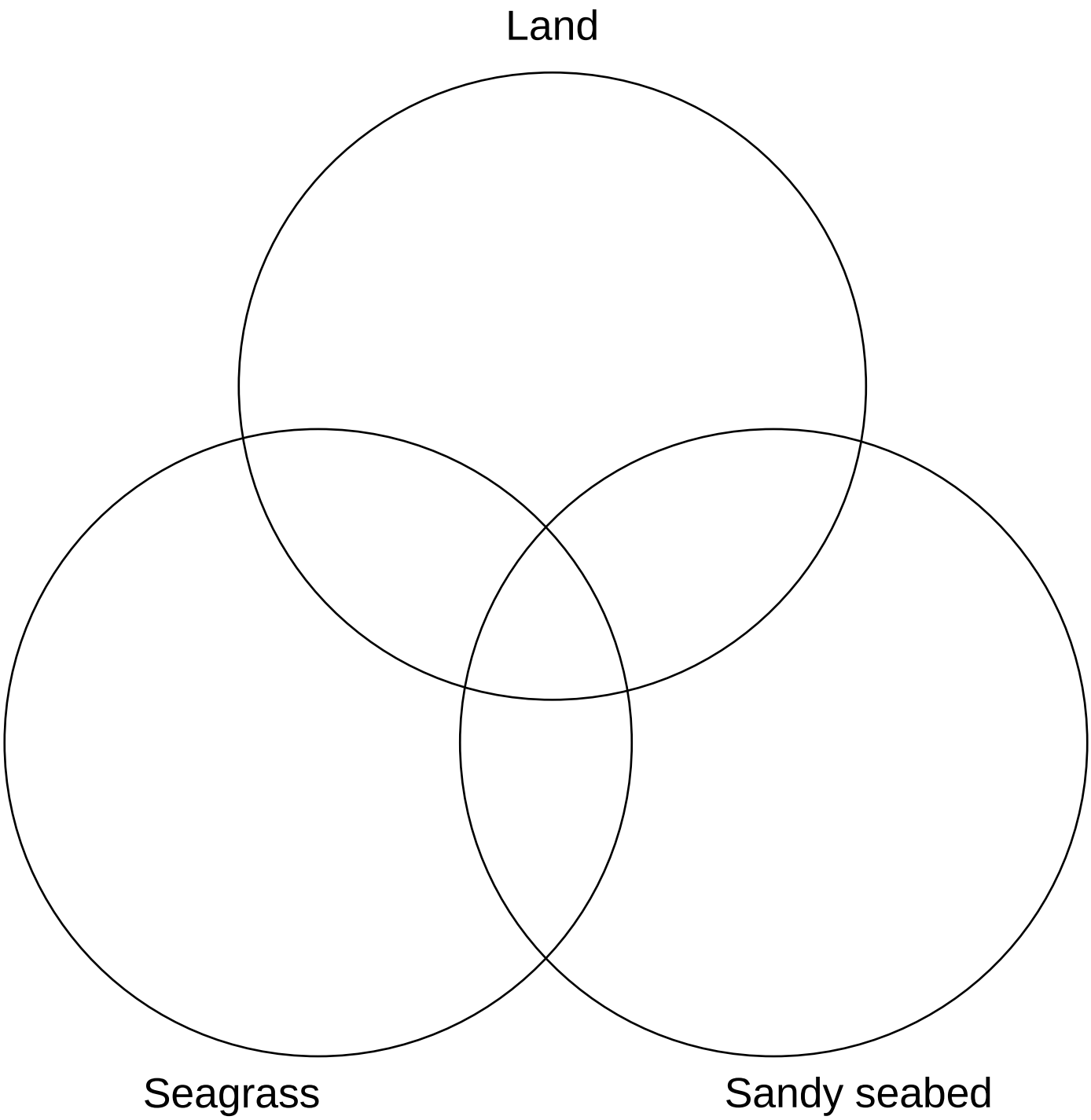
11) After a spotting session have a group discussion about who found which animals, which animals were the easiest and the hardest to spot and which habitats had the most life.

12) After an initial spotting session this could be continued into an ongoing competition as to who can tick the most species off by the end of the week- no cheating!

13) Discuss how tricky it is to gather accurate data about the behaviour and dynamics of marine life. Can the class add to our spotting tips?

WORK SHEET FOLLOW UP:

Below is a Venn diagram. Write the animals you spotted in the habitat where you found them in the Venn diagram. Some might overlap in lots of habitats whilst others you might have only found in one habitat. For example, if you only found a shore crab on the beach, then pop it in the land section only, but if you found it on the beach, in the seagrass meadow and on the sandy seabed then it goes in the middle for everywhere.



Where did you find the most animals and why do you think that might be?

Likely to be on shore, where the animals are easier to spot. In reality seagrass meadows support the most life given its provision of plentiful food and protection, however it's so good at hiding cryptic animals within that it may appear as though there's not much life.

Make a species ID card for your own made-up creature. Give it a common name, a scientific name, draw it, note key identification features and a tip on how to find it.