

Mission 2

UK Marine Habitats

Key Q. 1. How and why does the marine e_
_____ vary?

Outcomes

- 1 - Identify some common sea habitats and microhabitats
- 2 - Describe the features of the habitats
- 3 - Describe how some of the habitats change using science words, e.g. tidal

Dr Helen Findlay



Ocean layers

Hi I'm Dr Helen Findlay. I'm an Oceanographer at Plymouth Marine Laboratory.

I'm really lucky because my job means I get to travel to really exciting and beautiful places like the Arctic, and make brand new discoveries.

I explore the oceans and look at how the environment changes across different habitats. My favourite question

is "*Why?*"! So your mission today is to find out how and why the different habitats in the sea vary.

Deep ocean



Conditions

- Very dark
- Very cold

Open ocean



Conditions

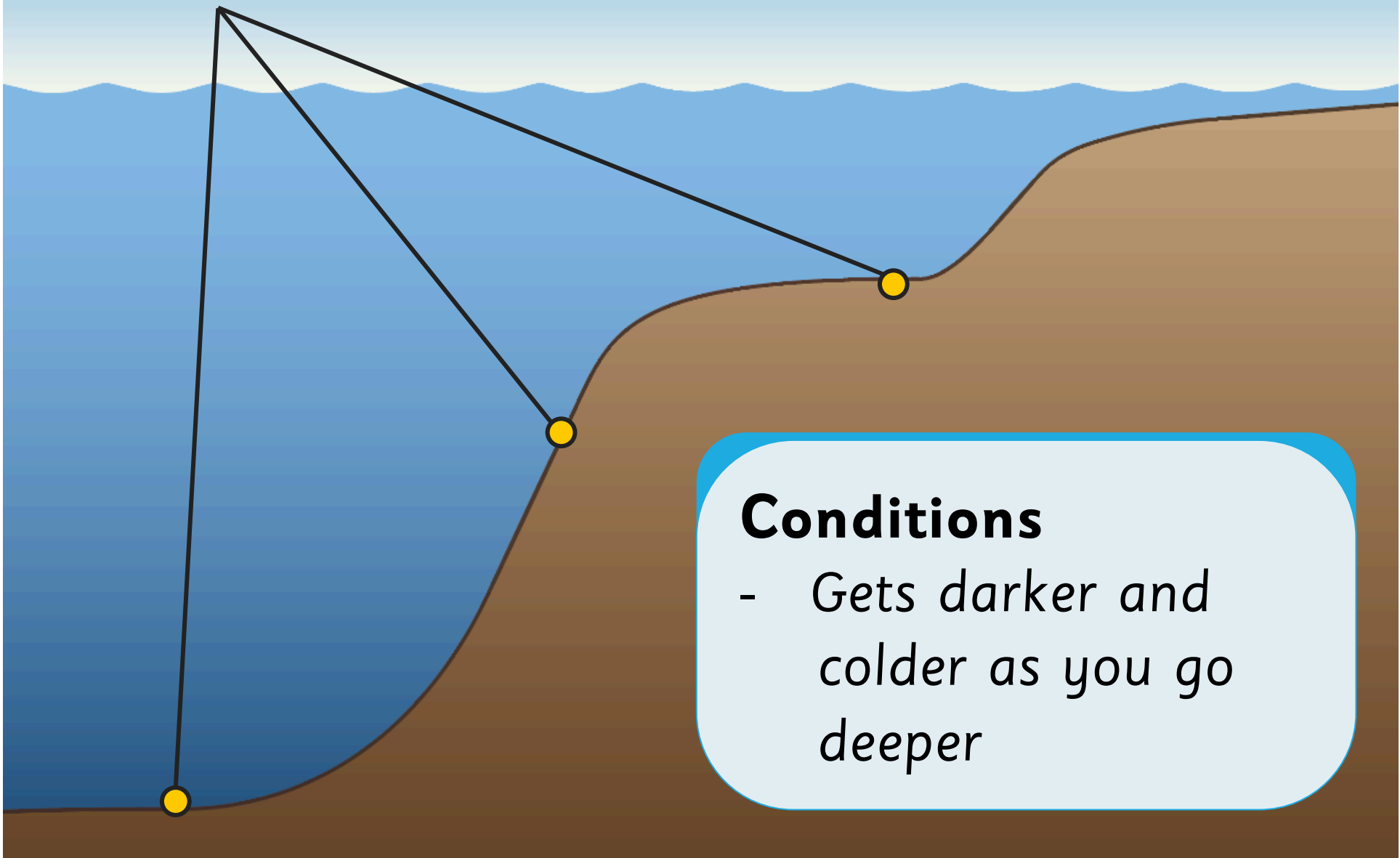
- Light
- Less food

Shallow seas

Conditions

- Light
- More food

Sea floor



Conditions

- Gets darker and colder as you go deeper

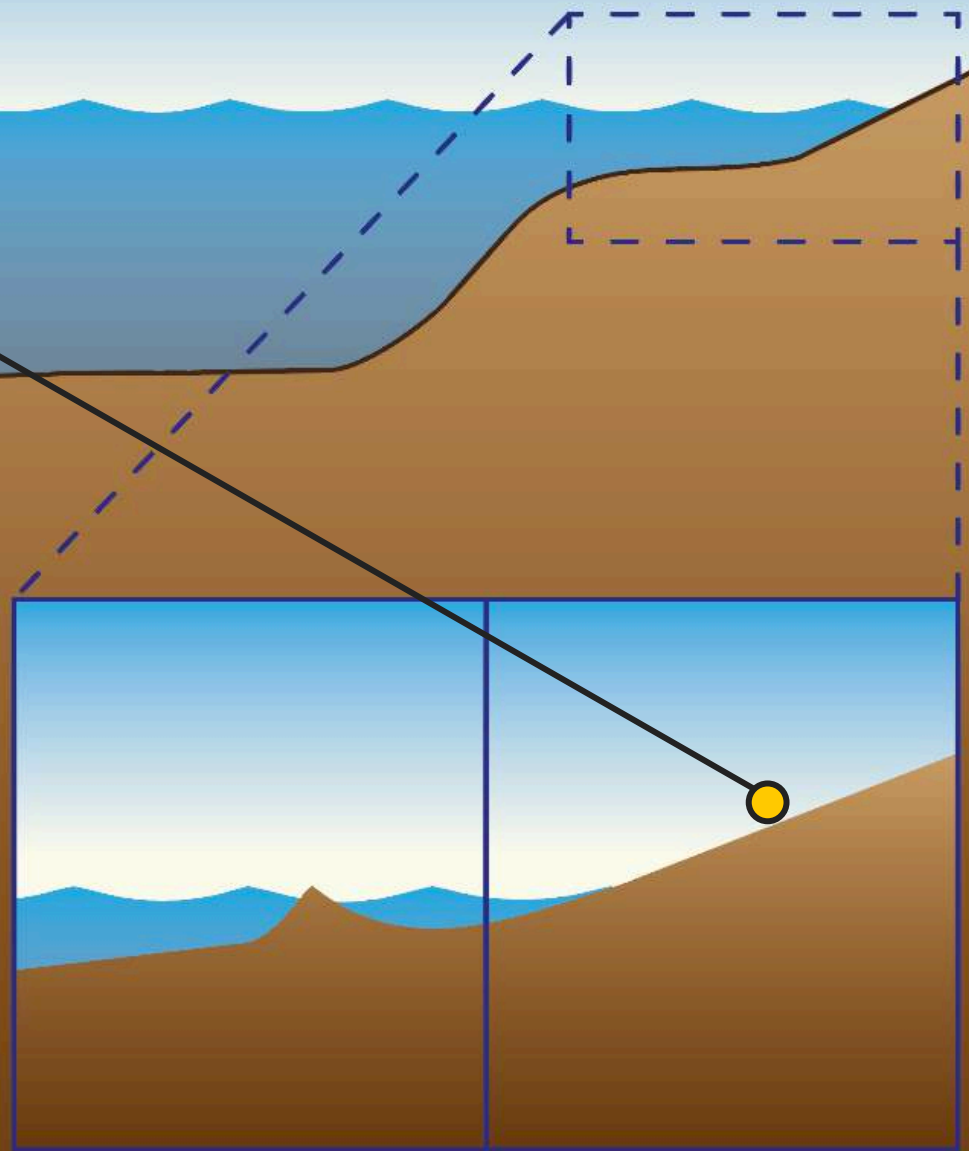
Shore



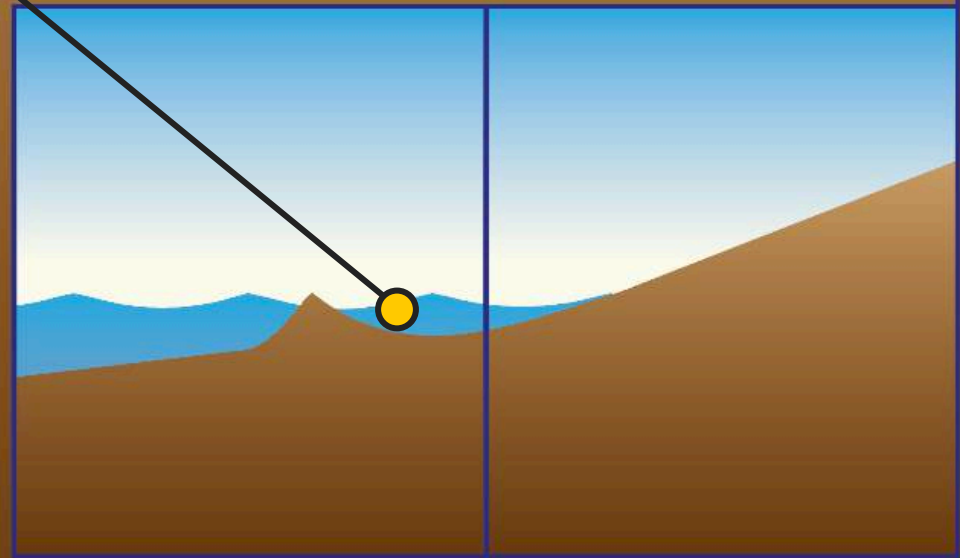
Conditions

- Very light
- Sometimes wet, sometimes dry

Shore Muddy and sandy



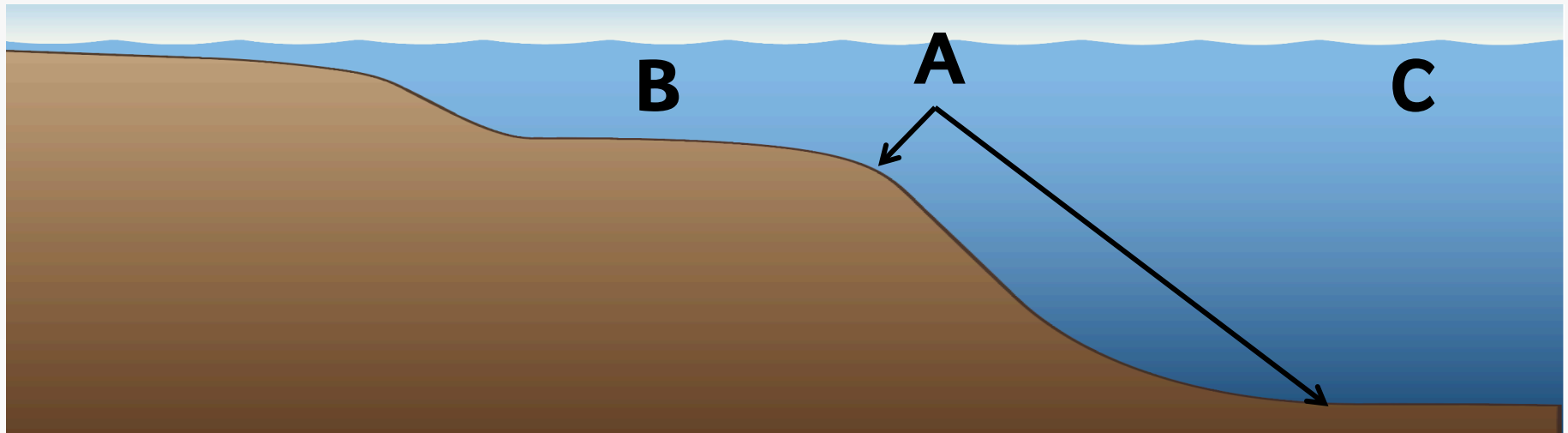
Shore Rocky



Learning Check Point 1

- 1 - Identify some common sea habitats and microhabitats
- 2 - Describe the features of the habitats
- 3 - Describe how some of the habitats change using science words, e.g. tidal

Learning Check Point 1



1. Name the habitats A, B and C
2. Name the marine habitats that get lots of light
3. Name the coldest marine habitat
4. What is the “tide”?

Learning Check

Point 1: Answers

1. Name the habitats A, B and C

A - The sea floor

B – Shallow sea

C – The open ocean

2. Name the marine habitats that get lots of light

Shallow seas, the open ocean and the shore

3. Name the coldest marine habitat

The deep ocean

Learning Check Point 1: Answers

4. What is the tide?

The tide is the movement of the seas on and off the shore regularly

Habitats diagram



This lesson you will complete the habitat and description sections and next lesson you will be finding out about the organisms that live there.

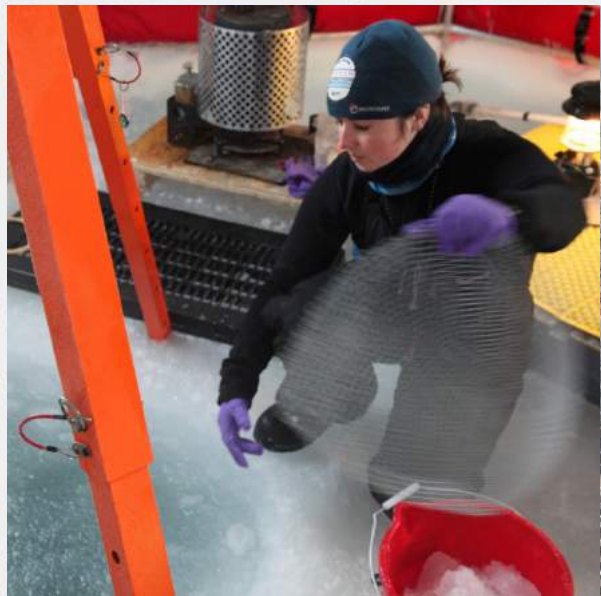
The diagram illustrates the ocean floor profile from the surface to the deep. It is divided into several zones: the **Ocean** (open water), the **Coast** (shallow water near the shore), the **Shelf** (a flat area extending from the coast), the **Slope** (a steeply descending area), **Rock pools** (shallow pools of water on the seabed), and **Sandy and muddy** (soft-bottom sediments). A dashed box highlights the Shelf and Slope areas, which are further detailed in an inset diagram. The inset shows a cross-section of a **Rock pool** and a **Sandy and muddy** area. Surrounding the diagram are seven sets of form fields for recording habitat information. Each set includes fields for **Habitat:**, **Description:**, and **Example organisms:**.

Final Learning Check Point

From today's voyage, tell Helen:

1. Three new things you learned
2. Two things that connect this to your previous learning
3. One question you still have

Final thoughts from Dr Helen Findlay



Polar explorer

The oceans are one of the least explored parts of our planet. They are so varied with all sorts of creatures living in all sorts of habitats: there's still so much to find out!

We need you to **keep being curious** about the world, to keep asking how things work and how they are changing. Then we can all learn how to protect the ocean we love as it changes in the

future. There will always be exciting opportunities to **use your passion** to find out even more about our planet and the oceans.

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