Activity Sheet 2: What animals live on the seafloor? KS3 Worksheet

KS3 Biology Case Study Review

What is a Regional Environmental Characterisation (REC) study?

Write a sentence explaining why ecologists needed to study the ecology of the Humber REC area.

Write three dangers to sea animal habitats.

1

2

3

Write a paragraph explaining what the ecologists did during their fieldwork.

What was the Silver Pit and why did ecologists think it was important?

Explore the Seafloor

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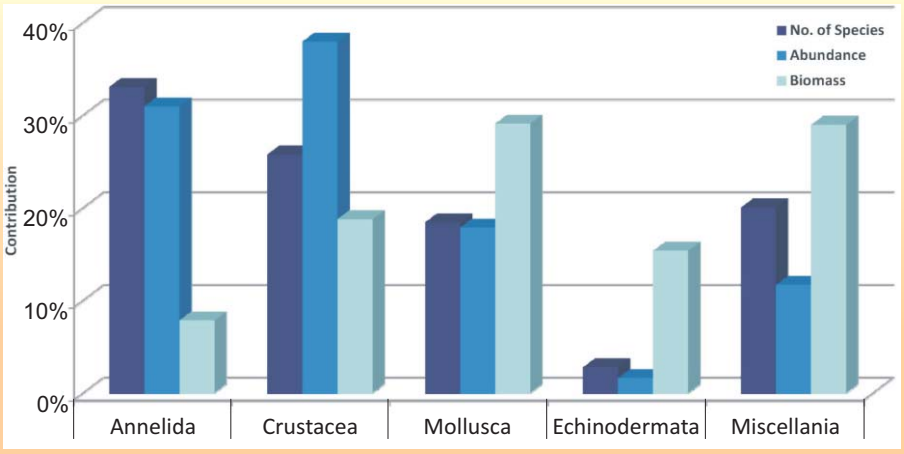
Match these ecological terms or methods to their definitions:

1. Habitat
2. Infauna
3. Epifauna
4. Phylum
5. Benthic macrofauna
6. Annelida
7. Hamon Grab
8. Beam Trawl
9. Mollusca
10. Echinodermata

A. A net for collecting sea animals from the seafloor
B. A level of biological classification for grouping animals by type
C. Sea animals that live in the seafloor, buried in the sediment
D. The classification for types of soft-bodied sea animals who have no skeleton but have a hard external or internal shell
E. Sea animals that live on or just above the seafloor
F. A place where an animal likes to live
G. Sea animals that live at the bottom of the sea that are 1mm to 10 cm in size.
H. The classification for types of segmented worms
I. The classification for the starfish family
J. A box-shaped scoop for collecting seafloor sediments and sea animals

Studying the results

Examine this graph, which compares the diversity, biomass and abundance for the different animal types (phyla) collected using the Beam Trawl.



Which Phyla has the highest percentage for:-

A. The No of species
B. The Biomass
C. The Abundance

A =	B =	C =

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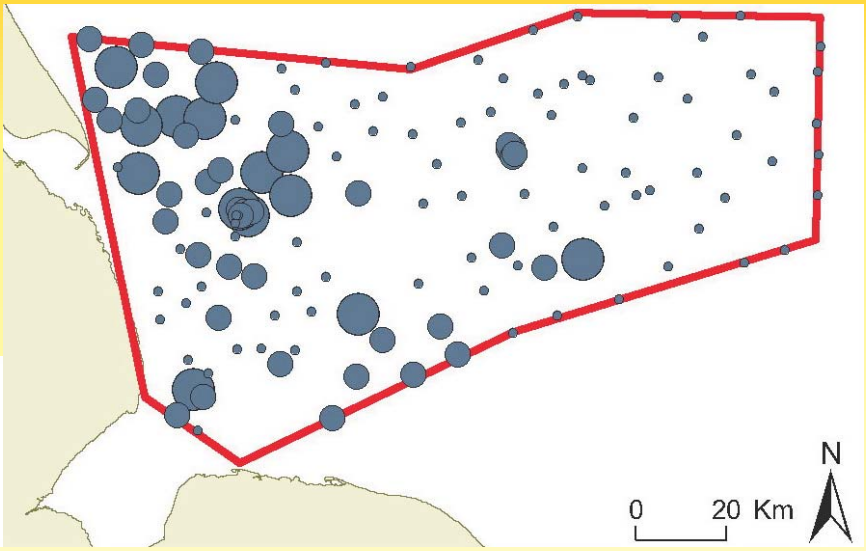
The results for the Hamon Grab samples are plotted on to a map of the Humber REC study area.

Write a sentence explaining what this map tells us about the biodiversity of the sea animals.

Explain what diversity means.



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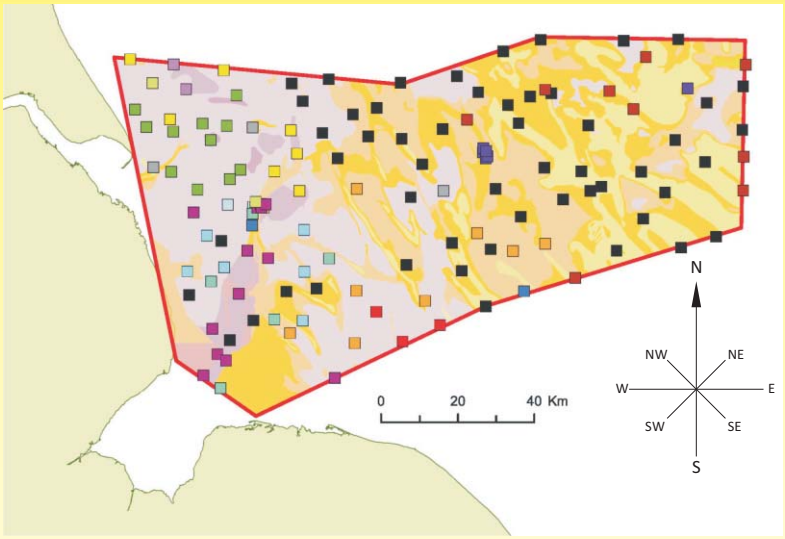
Mapping Seafloor communities

From all the samples the ecologists identified different benthic assemblages – groups of animals living together. They plotted the different groups onto a map of what the seafloor is made of – this tells us what different habitats these groups of animals like to live in.

Benthic Assemblages		Seabed Sediment
1	9	Sand
2	10	Muddy sand
3	11	Slightly gravelly sand
4	12	Gravelly muddy sand
5	13	Gravelly sand
6	14	Gravel
7	15	Muddy sandy gravel
8		Sandy gravel



Write a sentence explaining the kind of habits and the locations in the Humber REC study area of the following Benthic assemblages

Example: Benthic Assemblage 14 likes to live in sand or slightly gravelly sand and are located in the Northeast and East of the Humber REC study area.

Clue: Use the compass for describing locations.

Now you try:-

Assemblage 2, Assemblage 8, Assemblage 11

Explore the Seafloor

Homework Extension: Seafloor Species

KS3 Worksheet

Research one of the seafloor species from the list found in the Humber REC study area, and create a fact file. Remember you can use the website Image bank to get a picture.

Ross worms - (*Sabellaria spinulosa*)

Sand Mason Worms - (*Lanice conchilega*)

Common starfish - (*Asterias spinulosa*)

Prawn - (*Pandalus montagui*)

Swimming Crab - (*Lioarchinus holstatus*)

Burrowing Heart Urchin - (*Echinocardum cordatum*)

Blue Mussel - (*Mytilus edulis*)

Dog Fish - (*Scyliorhinus canicula*)

Harbour Seal - (*Phoca vitulina*)

Example:

Humber Seafloor Species

Common Brittlestar
(Ophiura albida)

© Seasurvey

Phyla: Echinodermata

Habitat: On surface of muddy sands or gravel or on rocks

Range: Around most of the British coast

Size: Central disc is up to 15mm in diameter and it's arms range in length, being approximately 4 times the diameter of their central disc

Food: Decaying matter, plankton and sometimes small sea animals

Fascinating facts:

- To defend themselves they break off an arm
- Do not worry it grows back again
- The lost arm could grow into a totally new brittlestar!