



Key Stage 2 - Lower  
ACTIVITY BOOK  
Ages 7-9

Teachers Answer  
Booklet



Welcome to  
Anglesey Sea Zoo!

Hi! My name is Seamor, and  
in this activity book my  
friends and I will give you  
lots of fun facts about the  
animals you see.

Front Room

1. There are several different types of flatfish in the pier tank. Name two species of flatfish you can see.  
Turbot and Plaice
2. Lots of animals, like the Turbot, can change their colour to blend in with their surroundings. This is called camouflage. Why do you think they have adapted to be able to change their colour?  
Camouflage. Mostly for hiding from predators but also to hide from their prey
3. True or false? Flatfish such as Turbot, are actually lying on their side.  
 True       False
4. Can you find an animal in this room which is not a fish? What is it?  
Crawfish (Orange lobsters), Edible Urchin, Sunstar or Snakelock Anemones

# No Bone Zone

5. All the animals in this room are in a group called the *invertebrates*. What does "*invertebrate*" mean? **An animal without a backbone**
6. Animals can be put into groups with other similar animals. This is called *classification*. Can you find an animal from each group in this room? ***Write your answers in the correct spaces below.***

**Crustaceans** - Have a hard shell, eight walking legs and two claws, for example:

**Lobster**

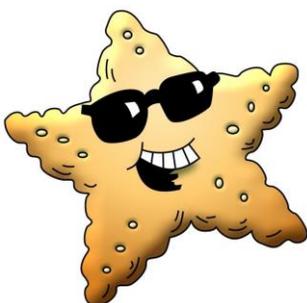
**Cephalopods** - Have eight legs called tentacles, which can crawl along the seabed. Most can change colour, for example:

**Octopus**

**Echinoderms** - Have spiny skin, a central mouth, and hundreds of tiny tube feet that help them move around slowly, for example:

**Starfish**

7. Which group of animals do humans belong to? ***Tick the right answer.***
- (a) Reptiles (are cold blooded and lay eggs)
- (b) Mammals (are warm blooded and grow young inside their bodies)
- (c) Crustaceans (have a hard shell on the outside of their body instead of bones)



**Did you know?**

Starfish are able to regenerate (*re-grow*) an arm if they are attacked by a predator.

# Marine Litter

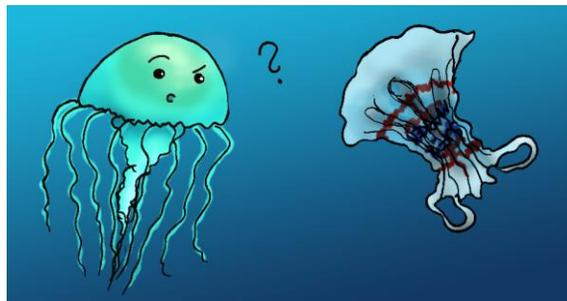
*Have a look at the wall display about Marine Litter.  
You will find this near the cuttlefish.*

8. Give two ways humans affect the oceans in a negative way:

1. Marine Litter
2. Pollution

9. Give two ways humans affect the oceans in a positive way:

1. Conservation
2. Management



*Global warming is one of the biggest problems caused by pollution. This is the warming up of the world's oceans. Temperatures are increasing at such a fast rate that many animals can't adapt quickly enough to survive.*

10. Name a marine animal that would quickly be affected by the world's oceans getting warmer:

Wolf fish (found in the front room) / Polar bear. Any animal that lives in a cold environment

11. Where in the ocean can this animal be found? Wolf fish (Arctic waters) Polar bear (Arctic Ice sheets above the sea, Canada etc)

## Breeding and Conservation

12. What do Cuttlefish use to change their position in the water column?  
(*hint: people sometimes give these to birds to chew on?*)

Cuttlebone

13. Cuttlefish are predators which use fast reflexes to catch their prey with long feeding tentacles. What do they have instead of teeth to enable them to feed?

Feeding tentacles



I have cells in my skin called **Chromatophores**. These allow me to change my colour in an instant!

13. Lots of plants and animals are linked by a food chain. Complete this Pipefish food chain by filling in the words from the choices below.
14. The sun provides sunlight, a source of **Energy**. Phytoplankton (*tiny microscopic plants*) use the sun's energy to grow. This process is called **Photosynthesis**. Zooplankton are tiny **Animals**. They get energy to **Grow** by eating the phytoplankton. **Pipefish** then eat the tiny zooplankton as it is carried past in the currents.

**Pipefish**

**Energy**

**Animals**

**Photosynthesis**

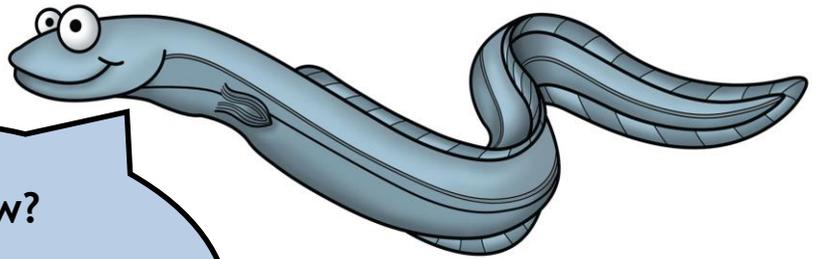
**Grow**

# The Wreck

16. Look at the artefacts on display. These items were found in shipwrecks around the UK. What is a shipwreck?

A ship / boat that's sunk beneath the water.

17. What is the name of the ship where the Ship's log was found?
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## Did you know?

Female conger eels can reach up to 3 metres long! That's almost as long as a small car.

18. What do conger eels eat? Fish / Squid
19. Could they survive by feeding on seaweed? **Yes / No**
20. Why / Why not?  
Wouldn't contain the nutrients needed to sustain the animal. This would end up with deficiencies in their diet leading to illness or death.
21. There is a fish in the wreck that is *venomous*. What is it?  
Weever fish
22. Can you think of any other animals that use poison or venom?  
*(They don't have to be Marine animals)*

Lion Fish / Sting Ray / Snakes / Dart Frogs

# The Lobster Hatchery

24. What is the name of the species of lobster on display?

European Lobster

25. Do lobsters have a skeletons like ours? No

26. What is their type of skeleton called?

Exoskeleton

27. Why do you think our lobsters have elastic bands round their claws?

To stop them fighting each other and to make them safe to handle for staff

28. Lobsters moult (*shed their outer shell*) as they get... (*Tick the correct one*)



*Bigger*



*Smaller*

29. Moulting usually occurs during times when food is plentiful. What time of year do you think Lobsters and other Crustaceans usually moult? Spring / Summer



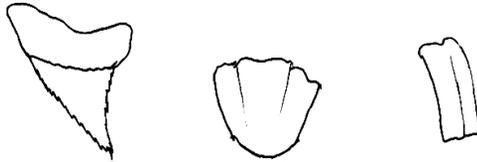
## Did you know?

In the wild, European lobsters live a solitary life, and do not allow other lobsters to invade their territory.

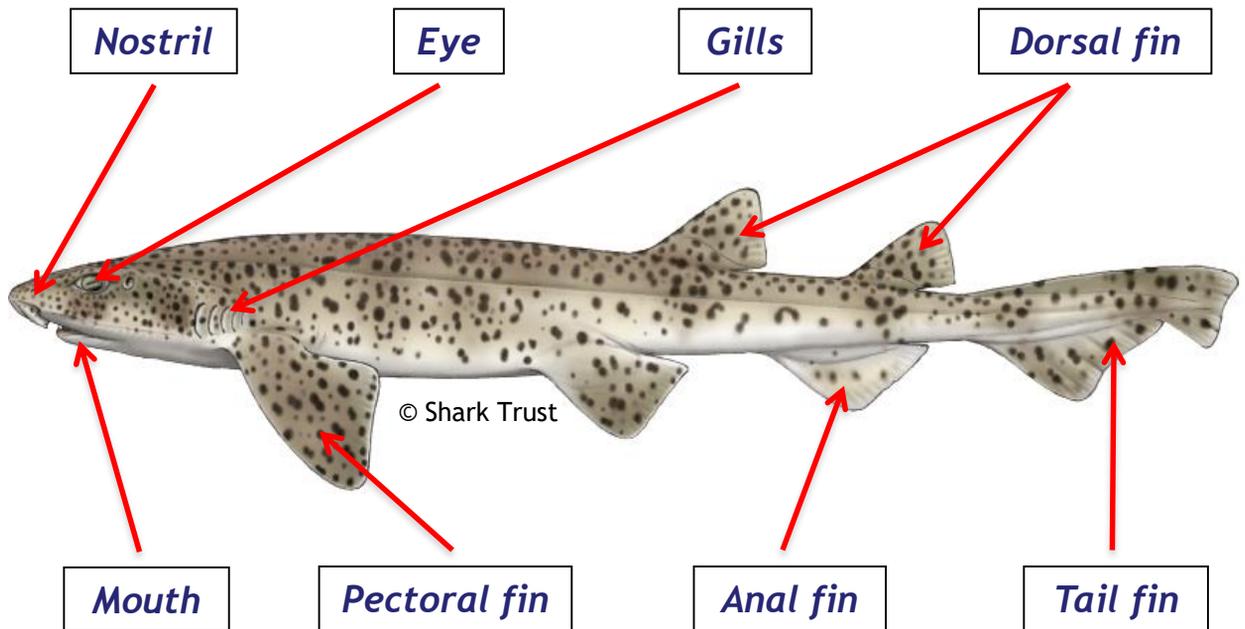
They are **cannibals**, willing to fight to the death. The loser may even be eaten by the winner!

# Shark Pool

30. Sharks are **predators**. This means they hunt other animals for food. As predators they need teeth to catch and eat their prey. What type of teeth do you think they would need? **Circle the correct answer.**



30. Can you label the different parts of the Greater Spotted Catshark?  
**Draw lines from the words to the picture.**



32. Looking at the big shark poster on the wall of the Shark Pool, name three other species of British shark:  
**Angel Shark , Tope Shark and Smooth Hound**  
**(There are plenty more on the poster)**
33. Look at the models hanging above the Shark Pool. One is a type of shark, and the other is a marine mammal. Can you identify which is which?
- a. (A shark) = **Basking Shark**
- b. (A marine mammal) = **Common Dolphin**
34. Can you write some differences between sharks (**fish**) and dolphins (**mammals**)? **Mammals are warm blooded, Fish are usually the same temperature as their surrounding. Mammals give birth to live young, Fish produce eggs. Mammals breathe air, Fish breath in the water.**

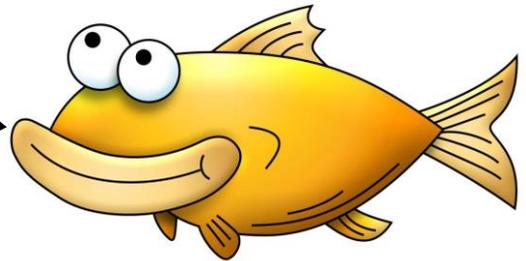
# Big Fish Forest

35. Are these statements *true* or *false*?

	True	False
Spider crabs can grow up to 3 metres across.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Thornback rays are well camouflaged.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Crabs moult their shells to grow.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rays can only be found in tropical seas.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Thornback rays lay egg cases ( <i>mermaid's purses</i> ).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sea bass also lay mermaid's purses.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Greater Spotted Catshark are a type of shark.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Did you know?

Some fish such as juvenile sea bass swim together in a group called a **shoal**. Shoaling protects them from predators and lets them help each other to find food.



36. Different animals have different types of skeletons. As humans we have calcium bones which are solid and don't bend. This protects our internal organs from damage. Sharks, due to the need to hunt at high speeds, have a flexible skeleton that is much lighter than ours.

What are shark skeletons made from? **Cartilage**

37. Shark numbers world wide are dramatically decreasing every year. This is because of the many threats they face every day.

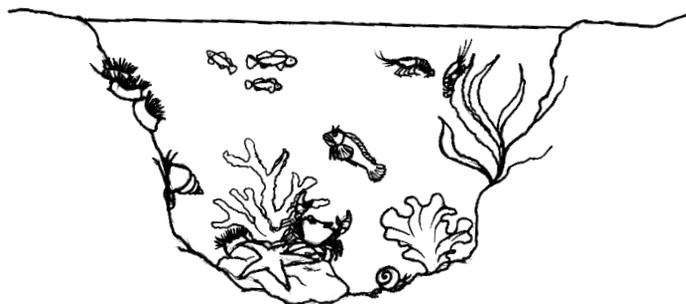
Name one of the main threats to sharks? **Finning (Hunted for their fins where the shark is caught, fins cut off them and shark thrown back into the sea).**

# Rockpools

38. Name three animals you might find in a Rockpool.

1. Star fish
2. Anemone
3. Shanny

There are plenty of other animals that are found in rockpools. There is a mural on the wall above our rockpools with a list of animals found there.



*Rockpools are created by pools of water being trapped on the shore when the tide goes out. These Rockpools are prone to dramatic changes that require the animals that live there to be really tough.*

39. What would effect the Rockpool in the winter?

Cold temperatures / Freezing

40. When water evaporates in the summer from Rockpools, what is left behind in increased quantities? (*you can taste it in the water*)

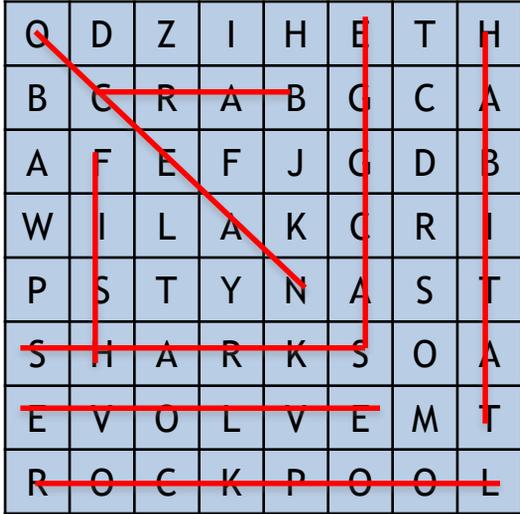
Salt

41. Rockpools are good places for predators to find food. Can you name two types of animal which hunt in Rockpools?

1. Hérons (and many other birds).
2. Otters (and any other scavenging animals).

# Fun and Games

See if you can find these words in our word search (*words might be across, down, or diagonal*)...

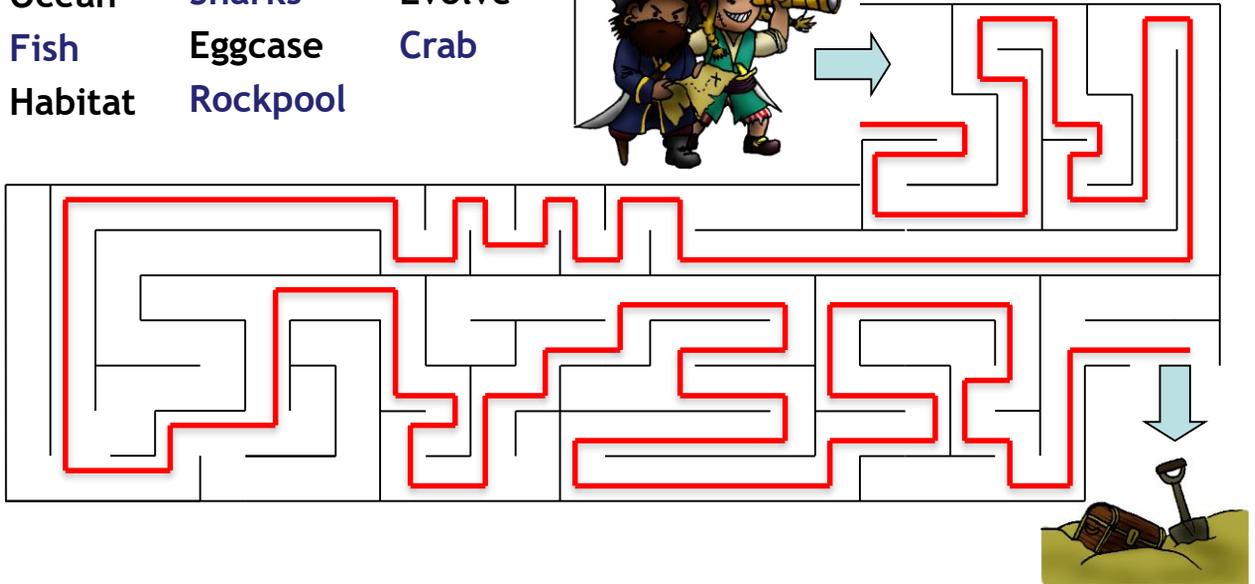


- Ocean
- Fish
- Habitat
- Sharks
- Eggcase
- Rockpool
- Evolve
- Crab

The names of these sea creatures have got muddled up. Rearrange the letters to spell out their names...

- OUOCTPS = O c t O p u S
- LEE = E e l
- RKASH = S H a r k
- LOBREST = L o b S T e r
- CBAR = C r a b

Can you help our pirates reach the buried treasure?



Finally, write about your visit to Anglesey Sea Zoo.  
Which was your favourite animal? What was the best part of your day?

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