45 - 60 mins

Strandline hunt

Teacher's pack

Topic: Strandline

KS: 1/2/3

Activity guide:

Equipment required:

- Clipboards
- Collection trays or buckets
- Equipment to explain how tides work
- Hula hoops

Before arriving at the beach:

1. Introduce the moon as the factor with the greatest influence that causes the tide. As a result of the gravitational pull, the moon causes a swell in the sea on both sides of the earth, namely the two high tides. This can be explained with pictures, or you can use balls to represent the earth and the moon in order to show how the tide moves around the earth. Using a large elastic band is a good way of showing how the sea swells on opposite sides of the earth.

At the beach:

1. Explain the variety of things that can be found in the strandline, both natural and man-made.

2. Spilt the class into pairs. Give them a 30min time limit.

3. The pupils try to find as many items on the list as possible. They also include three other objects they found interesting and draw them into the worksheet.

4. Get the pupils to lay their finds out on the beach in groups in the hula hoops with similar objects. Analyse the children's finds. Go through the items on the list and discuss what they are, e.g. mermaid's purse, whelk eggs, mussels.

5. If you still have time you can get the children to rearrange the finds into hula hoops based on which zone of the shoreline you would find them and go through their adaptations to that zone.

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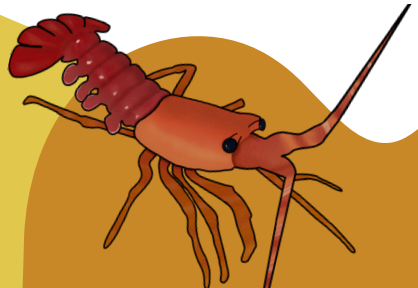
Below are some facts about the things on the seashore hunt to help get your discussions started.

		
Mussel shell - mussels live grouped together in beds. They attach to the sea floor using threads. Starfish eat mussels by prizing apart their shells slightly and then inserting their stomachs to dissolve the flesh.	**Whelk egg case** - also known as sea wash balls, they are the empty egg sacks of a sea snail called the common whelk. As soon as they hatch they start eating each other.	**Razor shells** - called razor shells because of their resemblance to old fashioned razors, they live vertically in the sand.
		
Cockle shells - there are different types of cockle. They are food for lots of seashore birds.	**Limpets** - are adapted to living on the exposed shore by having a hard shell to protect them from heat and waves. They attach so strongly to the rocks that they form a little micro climate around themselves so they don't dry out. Their tongue has been found to contain the hardest biological material known to man.	**Shore crab** - crabs can only walk sideways. To grow, crabs must get rid of their hard shell and grow another bigger one. This is why we find so many empty crab shells on the beach.
		
Hornwrack - although it looks like a plant, it is actually a colony of animals called polyps which together are called a sea mat. Some polyps protect it, some feed the colony and others reproduce.	**Eggcases** are also know as Mermaid's purses, they are often found on the strandline. If they have curly tendrils they are from the cat shark, if they have horns they are from a skate or a ray. Take empty eggcases back to the classroom, soak them in water and they will rehydrate and you can use the guides on the Shark Trust website to identify the species.	

Strandline hunt

How many items on the list can you find? Collect one of each if you can!

		
☐ Mussel shell	☐ Whelk egg case	☐ Razor shell
		
☐ Cockle shell	☐ Limpet shell	☐ Shore crab
		
☐ Hornwrack	☐ Lesser spotted catshark eggcase	☐ Spotted ray eggcase



The line of dead seaweed along the top of the beach is called the strandline.

* Use the bottom line to add three natural items you have found on the beach. Draw each item and then add their names