

# BSAC BEACHCOMBER NOTES FOR PARENTS



**BSAC**  
Dive with us



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# THE BSAC BEACHCOMBER ADVENTURE

## Introduction

There are 20,000 miles of British coastline to explore and wherever you live in the UK you are never more than 70 miles from the sea shore.

BSAC Beachcomber is designed to introduce young people, and those young at heart, to the British seashore and to help them discover all the weird and wonderful creatures that can be found in rock pools. For some of you it won't be an introduction but a reminder of those wonderful summer family holidays you spent on the beach in the UK!

We want young people to learn how to enjoy (and therefore respect) the seashore environment, learn about marine life and know how to stay safe on the seashore. We will highlight safety elements including a little about tides, weather, silt sands and to understand which species should not be touched to help them have a better understanding of how to have fun safely.

At the end of the activity participants should have an understanding of the seashore code, safe rock pooling techniques and a basic knowledge of the common creatures to be found and how to interact with them. This activity is designed to be fun and interactive so young people can learn through exploring and discover the fascinating world of British rock-pools. Parents can use this booklet to help teach their children about what they have seen for future trips to the beach.

## Student pack

The pack for participants contains:

- 'Become a BSAC Beachcomber!' guide
- Certificate

## **Duration**

BSAC Beachcomber can be run as a short few hours session or all day activity.

## **Age Guidance**

No restrictions. The target age group is 5-12 years but activity content can be adapted for all age groups or individuals.

## **Note for parents:**

Please ensure that you take your own children

## **Location and equipment**

Adequate beach, where rock pools can be easily found. When choosing your location, remember that a sheltered shoreline usually contains more diverse marine life than open beaches. A low water on spring tides is the recommended time for completing the Beachcomber course.

All the participants should wear appropriate clothing for the prevailing weather conditions, waterproofs, hats, sun protection, warm clothing as appropriate.

### *Footwear*

It is most important that suitable footwear is worn (e.g. wellington boots, walking boots or trainers) and participants should be made aware that footwear is likely to get very wet.

Bare feet, flip flops or similar open non-protective footwear are not permitted on the BSAC Beachcomber course.

To enhance the experience for participants they will also need small buckets with spades and hand nets. The Instructor will need a white or transparent tray for a group analysis.

### *Essential equipment list:*

- Small bucket
- Spades
- Hand nets (one per participant)

### *Additional equipment list:*

- White or transparent tray for a group analysis (number depending on a size of a group and number of instructors)
- Camera (to photograph any unusual species and a group photo at the end)
- Box with a glass bottom (or a diving mask)
- First Aid Kit
- Fluorescent vests. Available for purchase from BSAC Shop

### *Additional materials of interest*

- Shark Trust: The great eggcase hunt [http://www.sharktrust.org/en/great\\_eggcase\\_hunt](http://www.sharktrust.org/en/great_eggcase_hunt) (to find out all about shark's egg cases)
- MarLIN <http://www.marlin.ac.uk/>
- Book 'Great British Marine Animals' available from BSAC Shop

## **Recognition**

Participants will receive a certificate at the end of the Beachcomber course.

## **Course content:**

1. Site survey
2. Safety briefing
3. Introduction to marine life
4. Beachcombing
5. Analysis of finds
6. Beach games
7. Debrief and certificate presentation

### **1. Site survey**

An adult should survey the site for the rock pooling prior to the beachcombing activities to ensure a risk assessment for the group/ safety check for your children is ensured on the day to identify:

- Suitable rock pools
- Typical marine life to be found
- Collect examples to show
- Assess weather and other conditions
- Update lesson plans
- Make sure you know times of tides (to avoid being cut off)

### **2. Safety brief**

Safety on the beach and by the sea:

A risk assessment needs to be carried out before the beginning of each single course, mainly due to changes in tides and weather.

Safety on the beach and sea brief should include a short explanation about:

- Tides
  - o How do they occur
  - o What is the connection between tides and rock pools
  - o What is the danger – tides coming in, on open beaches a danger of being cut off.
- Silt sand
  - o How it is an important habitat
  - o Why is it a danger

### **Seashore code includes:**

- Inform someone where you are going and when you are planning to come back, if you can take a mobile phone. Check weather and tides before setting out.
- Walk carefully over rocks, they can be slippery and you can also damage marine life which often attaches itself to rocks. At this point introduce them to the Buddy system. Pair them up and tell them to hold hands to support each other when walking over rocks and uneven ground and to make sure they know where their Buddy is.
- Do not take any marine life home with you. If you collect shells, make sure they are empty.
- Take your litter home.
- Report anything unusual that you find but do not touch anything if you are not sure it is safe.
- Respect and replace any stone or seaweed exactly how you found it – it could be a home to many marine animals!

### **3. Introduction to marine life**

In this section of the course, you will provide initial information about what marine life they might see rock pooling where you are. Explain clearly that they should not touch any animals because they might damage the animal or hurt themselves.

#### Species **NOT TO BE TOUCHED:**

- Common Starfish
- Common Shore Crab
- Edible Crab
- Snakelocks Anemone
- Common Sea Urchin
- Common Lobster
- Lesser Octopus
- Tompot Blenny
- Shanny
- Corkwing Wrasse
- anything you are not sure about

Remember only EMPTY shells can be collected and taken home. If possible, use a visual aid to introduce the core creatures. (e.g. plastic models, photos etc.).

In preparation for your course on site, you could also collect in advance some examples of what they can find in that particular location, e.g. mermaid's purse, seaweed, sample of shells to show your group as part of the introduction.

## **4. Beachcombing**

It's usually best to start beachcombing from the lower part of the beach and work your way up. However, you might need to adjust this guidance depending on the tides. If the tide is in then you may need to reverse process. Children should be supervised at all the times. They can collect some marine species in their buckets taking into account the safety brief. Remind them that they should use spades and nets to collect creatures, never bare hands.

## **5. Finds analysis**

Put all of them in a big tray and go through the items one by one. During this process you could play Q&A and tell them all interesting facts about each species. For species that cannot be collected but are common to the area you are beachcombing, use photographs made during the course or an alternative (e.g. a plastic model or a pre-prepared photo)

## **6. Beach games**

Use any remaining time to play beach games. These could be creating sand sculptures in teams of the creatures found, creating underwater scenes using any seaweed or beach debris available and/or doing a litter pick to identify the dangers to marine life from rubbish.

## **7. Debrief and certificate presentation**

Remember to debrief your child / children on how to be a safe beachcomber.

Your debrief should include:

- Asking for feedback on how they enjoyed it and what they learnt.
- Present them with their certificates and Beachcomber pack, which they can use after the session.
- Remind them of the seashore code and basic safety.

**What happens next...** encourage them to enjoy the seashore and marine environment and continue to be safe and respectful beachcombers!





## Top Beachcomber critter facts:

Please find below some information on the most common creatures you are most likely to encounter, which you can use in your finds analysis session. You can find information on other creatures not listed here at [www.marlin.ac.uk](http://www.marlin.ac.uk)

### Common Starfish



The common starfish is perhaps the most familiar of all starfish, and can be found on almost all seashores around the UK.

Starfish are not actually fish!

Starfish are usually orange or pale yellow in colour. These starfish usually grow to between 10 – 30cm across. Most have five arms, but sometimes you may find one with four or even six! Starfish are also capable of re-growing lost arms. A single arm is also capable of re-growing into an entire new animal!

Starfish have thousands of sucker-like tube feet, which help them to walk along and grip onto surfaces.

Starfish have eyes on the end of each arm, but these are not like human eyes! They are known as eye spots, which are found underneath its skin. They can be either black or red.

Starfish are predatory, which means that they hunt and feed on small animals such as mussels and clams. When feeding, the starfish will push its entire stomach out through its mouth and into its prey's shell. Special juices then break down the prey into a soup. Its entire stomach, along with its soup dinner is then pulled back into its mouth. Yuk!

### Cushion Star



Cushion stars can be found hiding under rocks and boulders in rock pools.

They are much smaller than other starfish, (usually growing up to 5cm across), and have very short arms. Most will always have five arms. The colour of this starfish varies with habitat, but the colour is usually brown, orange or green. Cushion stars are omnivorous, and will scavenge on dead plants and animals.

## Common Shore Crab



The common shore crab is extremely common in rock pools around the UK. Shore crabs are usually dark green / yellow in colour, but this can vary.

Common shore crabs are considered omnivores, feeding on a wide variety of prey; including algae, sea snails, worms, shrimps, and even other Common Shore Crabs!

Usually grow to about 8cm across.

## Edible Crab



Edible crabs are usually found on the lower part of the sea shore. They like to hide, and are often found dug into sediment on the shore.

They are large, with a thick oval shaped body. They are easy to tell apart from the other crabs, as they have black-tipped claws.

They are very strong, and make short work of their prey which includes mussels and whelks.

Can grow much larger than the common shore crab, usually to about 20cm across!

## Common Prawn



Common prawns are found in most rocky areas of the seashore, including rock pools.

They appear almost transparent, apart from the brown lines on their body and yellow bands on their legs.

Common prawns are scavengers, and feed on just about anything! Usually grow to about 11cm long!

## Beadlet Anemone



The Beadlet Anemone can be found on UK rocky shores, and tends to live in rock pools or in very shallow water. These anemones usually attach themselves to a hard surface on the shore.

Like all anemones, Beadlets have tentacles which are used to catch prey, and you can see the tentacles clearly when they are underwater. However, when exposed to air, the anemone retracts its tentacles and often looks just like a blob of jelly attached to a rock on the shore. Beadlet anemones usually have up to 192 tentacles in total!

Beadlets are usually a deep red colour, so they are easy to spot on the shore. Sometimes they are green, brown or orange.

## Snakelocks Anemone



The Snakelocks Anemone is found in shallow water, and in rock pools on

the seashore.

They can have slightly more tentacles than beadlet anemones, with up to 200! These tentacles are usually a rich green colour with purple ends. Tentacles are long and sticky, and are used for catching passing prey.

## Common Sea Urchin



The Common Sea Urchin is a slow-moving, rounded creature that can be found in rocky areas around the UK coast.

The skeleton of this animal is usually bright red; however, the white spines that cover the urchin's body usually make them appear pink. These spines are used for defence. Like starfish, Sea Urchins are also covered in tube-feet which help them move along.

Sea Urchins feed on a variety of prey, including barnacles and algae.

## Barnacle



Barnacles are crustaceans, and are related to shrimps, crabs and lobsters! Most barnacles are very small, and can be found all over the UK coast. They live in huge populations on the shore, often with many thousands found on a single rock! The barnacle's body is made up of plates that form a hard shell.

Barnacles will typically grow up to 1.5 – 2cm across.

They feed by extending their long, feather-like legs that will trap any food passing by in the water.

## Common Limpet



Limpets are some of the most common animals found on the rocky shores of the UK. They are molluscs, and are related to snails.

They have a very strong, cone-shaped shell that is most often firmly attached to rocks on the seashore. These shells can grow up to 6cm across. Their shells are a good defence from predators such as starfish, who may try to pull the limpets from the rocks.

Limpets are herbivores - that means they feed on algae growing on the rocks. To do this, they move slowly over the rocks surface, scraping algae from the rocks.

## Common Mussel



The common mussel is a very well-known marine animal that can sometimes be found on the seashore, or in shallow water.

Shell colouration is usually blue-black. Mussels are known as bivalves (Pronounced: bi-valves), as they have two shells covering their soft body.

Mussels mostly live in large groups, attaching themselves to each other and to rocks with sticky threads. Mussels have a strong muscular foot that is used for digging into the seabed.

Mussels are filter-feeders, and feed on tiny animals that live in the water.

Lots of different animals like to eat mussels, including starfish, crabs and whelks.



## Dog-Whelk



Dog-whelks are a common sight on UK seashores. Dog-whelks are carnivores, and are most often found amongst groups of their favourite prey items. These include barnacles, mussels and other varieties of sea snail.

To feed, the dog-whelk will use a special tool to break a hole into the shell of its prey. It will then release special juices into its prey that break it down into a soup, which can be easily sucked up.

Shell colour is generally pale white or grey.

## Common Hermit Crab



Hermit crabs are very common on rocky shores, and are often found in rock pools. Most are very small, but large ones can be found.

They are different from other crabs, as they protect their soft bodies using an old snail shell. When it feels threatened, the crab can hide inside its shell to protect itself.

As hermit crabs grow and get bigger, they have to find bigger shells! Hermit crabs are omnivores, eating almost anything! They can also filter feed small particles from the water.

## Common Lobster



The common lobster is an iconic sea creature, but is not often seen on the seashore.

They like to hide in rocky areas.

The common lobster is a dark blue colour – they only go red when cooked!

They are active predators, and eat lots of different seashore animals, including mussels, snails, crabs and small fish.

Animals found are usually up to around 30cm in length!

## Lesser Octopus



Although Octopus are more commonly seen underwater by divers, occasionally they can be found in large rock/tide pools on the seashore. If ever found, they are usually easy to identify, with their soft bag-like body and eight flexible arms.

Crabs are one of their favourite things to eat.

Their arm span can reach up to 70cm!

## Periwinkle



Periwinkles are marine snails. They are typically found in rock pools on the seashore.

There are many different kinds of periwinkle, and the most likely to be found include the common periwinkle, rough periwinkle and the flat periwinkle.

Their colours vary. All periwinkles are herbivorous and graze seaweeds and algae growing on rocks.



## Tompot Blenny



Tompot blennies are unusual looking fish, with long bodies and a large head.

Although adult fish are not commonly found on the shore, young tompots can sometimes be found in rock pools.

Colour is usually reddish brown, with dark bands down the body. They usually grow up to a maximum of around 30cm long!

They eat a wide variety of other sea shore animals, including crabs, sea snails and sea anemones.

## Shanny



The shanny is also known as the common blenny.

They are widespread across UK seashores, and are commonly found in rock pools hiding under large rocks.

They have a long body, which is often a greeny-brown colour. They grow up to around 16cm long.

Like the famous chameleon, the shanny can also change its body colour to match the colour of its surroundings!

Shannies are not fussy eaters, and will eat anything, including worms, snails, shrimps, barnacles and seaweed!

## Corkwing Wrasse



Corkwing wrasse are often found hiding in algae-covered rock pools on the lower part of the shore.

Males (boys) and Females (girls) are different colours. Males are usually more brightly coloured, with hints of bright blue or dark red. Females are usually pale brown. They grow up to around 25cm long!

A dark spot on their tails may also help to identify this species, but this can sometimes be difficult to see!

These fish usually eat crabs, shrimps and snails.

## SEAWEEDS

Seaweeds are not plants. They are algae. They do not have roots or leafy tissues like most land-growing plants.

### Bladder Wrack



Bladder wrack is a large, brown seaweed. It is found in large numbers on rocky shores.

### Toothed Wrack



Toothed wrack is similar to bladder wrack, usually an olive-brown colour and at first glance may look similar to bladder wrack. However, this seaweed is easily told apart as the fronds are jagged. It is very common all around the UK coast.

## Knotted Wrack



Knotted wrack is usually found on the middle of the seashore. It is very common, and looks just like string!

Fronds have large 'bubbles' which contain air. This allows the seaweed to float in the water!

Some fronds can grow huge, up to 2 metres in length!

## Sea Lettuce



Sea lettuce is very easy to spot. It is completely green, and looks just like the lettuce we would eat! It is common around all shores of the UK, where it grows on rocks or other seaweeds. Lots of marine animals like to eat this seaweed!



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