Coastal Creatures

Activities for Young Seabird Ambassadors

Introduction

The aim of this session is to teach young people about the wildlife they can find at their local coast. Looking up and around for seabirds and looking down in the rockpools and seaweed for all the small creatures which form part of food chains.

This is a great activity for autumn when the weather is still mild enough for longer field trips and although some seabird species will have migrated away for winter months, many waders will be feeding on the coasts and some seabirds stay in Scilly all year. The sea is also at its warmest in Scilly at this time of year so it's a great time to go rockpooling! The download link for the *'Scilly Coastal Creatures Identification and recording form'* http://ios-seabirds.org.uk/files/2114/4674/5261/Coastal_Ceatures.pdf gives a great selection of autumn species to look out for in Scilly.

Learning Objectives

- How to identify up to six species of seabirds or waders
- How to identify up to six species of wildlife living in rock pools and seaweed
- Learn which species live in rock pools and learn how they feed when the tide is in and how they survive when the tide goes out
- Learn which species on the shore form food chains
- How can we help protect our seabirds

Materials Required

- Binoculars (if you have them)
- Species recording sheet *'Scilly Coastal Creatures Identification and recording form'* http://ios-seabirds.org.uk/files/2114/4674/5261/Coastal_Ceatures.pdf
- First aid kit
- White trays or clear tubs to collect creatures in
- IOS field guides.

Risk Assessment

- Identify safe rock pools to investigate prior to the activity
- Make sure everyone is wearing appropriate foot wear and that children are reminded of areas with particular risk of falling (eg. slippery rocks).
- Remind them to tread and move carefully
- Make sure the children don't pick up crabs as their claws are dangerous, and that they don't touch jelly fish or anemones as they can sting.
- Hand washing after touching animals
- Watch out for dogs that may be off the lead on beaches and may approach the group, instruct children not to touch them.
- Have first aid kit with you at all times

Activities on the Beach

Part 1 - Bird Watching and Rockpooling

Looking for birds.

- Practice using binoculars first. Print off the *'using binoculars form'* http://ios-seabirds.org.uk/files/8814/4674/5836/usingbinoculars.pdf
- Head to the shore and bird watch on the way!
- Take the *'Scilly Coastal Creatures Identification and recording form'* attached to a clipboard, and nominate one person to fill it in. You can discuss which species you saw at the end of the session.
- Tell the children about the seabirds they see and the Manx shearwaters which breed on Scilly. This population is one of only two that breed in England (the other is the island of Lundy)

Rockpooling.

- See what can be found in the rockpools, putting some in collection tubs to identify the animals further using field guides
- No animal should be kept in the tub for more than 20 minutes and no crabs should be put in the tubs with another animal as they can attack other animals.
- Make sure rocks are lifted and put down gently so as not to harm anything underneath them.
- Show and tell what the children find.

- To enable the children to further understand the behaviour and life cycles of these amazing rockpool creatures look at the activities below, play these games before or after rockpooling.

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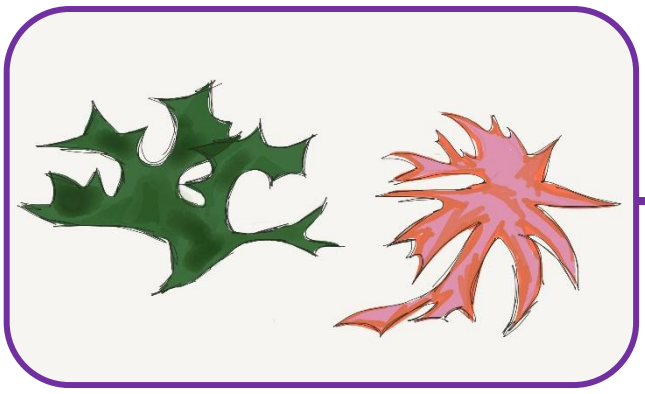
Part 2 – Food Chain Game

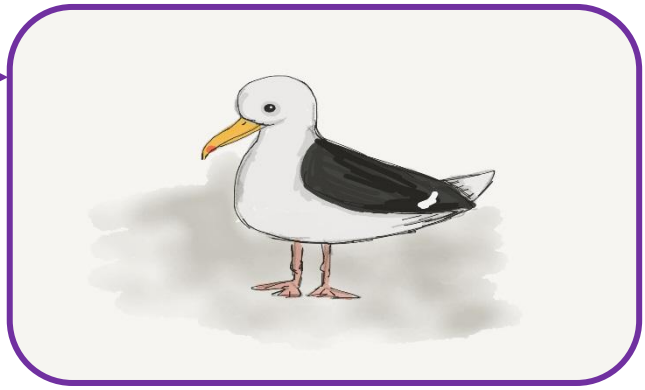
A game to be played on the beach in teams, encouraging children to think and organise themselves into food chains from bottom producers (seaweed) to top predators (gulls).



1) Beach food chains begin with seaweed, plankton and particles of decaying matter

2) Small animals filter plankton particles out of the sea or sand eg. Lugworms sieve the sand, barnacles wave feathery legs to catch plankton and limpets, winkles and topshells (molluscs) have rasping teeth or tongues to scrape up seaweed.

3) Crabs, whelks and fish are carnivores or scavengers. They use drills, strong teeth or crushing claws to break the shells of limpets and other molluscs. Starfish also eat prey with shells, they open the shell a fraction, slip their stomach in and dissolve the creature alive!



4) Larger carnivores such as gulls visit the beaches for a feast.

Instructions:

-The 'Food Chain Cut Outs' http://ios-seabirds.org.uk/files/3114/4674/8703/Food_Chain_Cut_Outs.pdf should be printed, cut out and possibly laminated.

- Children could do some research into food chains before this but not essential, the team leader can explain in the field.
- On the beach split the children into teams, provide the cut out labels in a hat or bag, the children can then select a label at random and in their teams coordinate their food chains on the beach.
- They should line up to represent their food chains from the bottom producer to top predator

When they are in their lines ask them to explain their decisions to the other teams. Ask the rest of the group to confirm whether their decisions are correct. Finish by asking the whole group to consider whether the shore environment is a tough place to survive as a coastal creature.

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Tide in and tide out game

This game is designed to get the children moving and thinking about the behaviour of coastal creatures, and how beaches are many worlds in one!

* Background for group leader - firstly explain the below to the group

All rockpool creatures on the beach have different behaviours in order to survive when the tide is out. Out of the water they may dry out (desiccate) or may be predated by seabirds. Seabirds on the other hand take the opportunity to forage the shore at low tide for any creature caught out!

Crabs are predated by other crabs and birds. When the tide goes out, they use their hard carapace to both stop them drying out and also to protect them from predation. They also use their claws to nip potential predators, and they will also hide under seaweed and rocks. When the tide comes in they move around the sea floor in search of fish and shrimps to eat.

Limpets are predated by fish, crabs and birds. They return to their 'homestead' this is where they clamp down to a rock and their shell perfectly matches the groove in the rock to make their 'foot' clamp on tight so birds can't scoop them off with their beaks and a tight seal means they don't lose moisture in the sunlight. When the tide comes in they move off to feed on seaweed.

Beadlet anemones are predated by fish, crabs and birds. When the tide goes out, they withdraw their tentacles into their bodies to keep moisture in and make their surface area small, reducing the likelihood of predation. When the tide comes in they extend their tentacles and wave them, the stinging cells on the tentacles sting their shrimp and fish prey.

Coastal fish are predated by anemones, crabs and birds. When the tide goes out, they hide in tiny pools between rocks and seaweed. When the tide comes in they swim back out to forage again.

Seaweed can't move as it is a plant. Seaweed attaches by a 'steadfast' to rocks. It is eaten by limpets and other molluscs. When the tide goes out seaweed lies flat against rockpools and t is waxy to avoid drying out. When the tide comes in its long fronds allows it to float up the water column to get to sunlight in order to photosynthesise.

Gulls are top of this food chain. When the tide goes out, they forage the shores hoping to find crabs which have moulted their shells and are softer to eat, or fish that have not hidden well, or limpets which have not returned to their homestead in time! When the tide comes in the rockpools are covered and they cannot find food here anymore so they forage elsewhere, maybe fishing out at sea.

Instructions:

Split your group into teams and each member of the team will act out one of the above species! When the team leader shouts **"tide in!"** they need to act out their natural behaviours (e.g. crab moves sideways foraging, limpets slide around raking up seaweed, anemone extend tentacles to catch fish, fish swim off to catch shrimp, seaweed rises upward in the water column and collects sunlight in its fronds, gulls fly off elsewhere – nothing to eat here anymore. When the team leader shout **"tide out!"** they need to again act out their relevant behaviour!

The team with the best scene wins!

Fun follow ups and links

Why not cut and colour in these fun masks of creatures found at the coast – see the links below
- Gannet (the UK's largest breeding seabird – you may have seen them plunge dive for fish)
- Puffin (Scilly hosts around 200 breeding pairs, take a boat trip to see them)
- Red Admiral (That's right! Red Admirals migrate across the seas)

- Gannet mask http://ios-seabirds.org.uk/files/2114/4674/5326/gannetmask_tcm7-136005.pdf
- Puffin mask http://ios-seabirds.org.uk/files/8514/4674/5357/puffinmask_tcm7-136017.pdf
- red admiral mask http://ios-seabirds.org.uk/files/8014/4674/5390/redadmiralmask_tcm7-136019.pdf

What can you do for seabirds?

- Visit the website to find out about opportunities on the island to help the Seabird Recovery Project.
http://www.ios-seabirds.org.uk/
- Report and signs of rats on Agnes, Gugh or uninhabited islands by calling the number 01720 422153.
- Avoid nesting seabird colonies, watch the chicks from a distance.
- Keep dogs under close control when birds are nesting
- Dispose of waste properly and help keep beaches clean.

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