

Conducting Your Beachcombing Field Trip

Conducting your own beachcombing field trip is as simple as following the steps below.

Equipment Checklist

Item	Tick
Beachcombing Field Guide	
Beachcombing Datasheet	
Clipboard(s) and pencils	
Camera	
Tape measure	
Rubbish bags, gloves, tongs and sharps container.	
Hula-hoops (x3) – optional	
Magnifying glass for closer inspection – optional	
Sun protective clothing (including hat and sunglasses) and sunscreen	
Tangaroa Blue Ocean Care Society, <u>Marine Debris Identification Manual</u> – optional	
Tangaroa Blue Ocean Care Society, <u>Debris Collection Datasheet</u> – optional	

Outline

When on location, before commencing your beach walk, consider the following:

- 1. Reinforce the various safety messages to your participants**, as discussed in your pre-excursion activities.
 - It's recommended that participants wear suitable footwear on the beach and avoid bare feet (due to glass and other items which may be on the beach).
 - Do not pick up glass, syringes or other potentially dangerous items.

Be sure to check *Beachcombing Basics*, *Site Choice* and *Pre-excursion Activities* prior to going on your beachcombing field trip.



- Do not pick up bluebottles, as their stinging cells can still be active, even when they are washed up on the beach. Refer to *Danger Zone* fact sheet for further information about potentially dangerous marine life.
- 2. Define the area of exploration** – point out sand dune vegetation, high and low tide watermarks, sea wrack or strand line if present, and other features. Advise students to stay off rocks and out of water. It may help to divide the beach into three zone using the beach profile:
 - Sand dunes – do not walk on the sand dune vegetation to avoid degradation.
 - Beach – follow the strand line (the line of algae along the beach at the high tide mark) to discover hidden treasures on the beach. Or sort through the sea wrack to see what you can find.
 - Swash zone – students should avoid this area unless the relevant water-based excursion guidelines are adhered to.
 - 3. Define the exploration time permitted**, e.g. 20 minutes.
 - 4. Split the group into smaller groups with a parent helper** – you may also like to ensure participants have a buddy at all times to assist with supervision.

Conducting Your Beachcombing Field Trip (continued)

Exploration time!

Choose a goal for your participants depending on their level of understanding.

Example one:

Using the *Alphabet Beach Walk* activity sheet, see how many natural and man-made items you can find on the beach.

Example two:

Ask participants to collect at least one plant, one animal (or remains of an animal) and one man-made object (or marine debris).

For the purpose of this activity these broad terms apply as follows:

- **Plant** – a living thing that has the ability to produce its own food, has ‘root-like’ and ‘leaf-like’ structures, e.g. seagrasses, algae and terrestrial plants (e.g. spinifex, or branches and nuts from nearby trees).
- **Animal** – a living thing, or the remains of a living thing, that cannot produce its own food. It has body parts developed for feeding and generally has external structures to assist in movement, e.g. cuttlebone, shell and seahorse.
- **Marine debris** – litter or rubbish that has found its way to the sea, either from a land-based or ocean-based source. This includes man-made items such plastic, rubber, glass and fishing line.

Example three:

See if you can find:

- the three different types of algae (seaweed). Beware: the sun does bleach the algae – changing the colour, which might confuse some participants;
- a piece of seagrass;
- an animal or remains of an animal; and
- any man-made items.

Have a plastic bag available to collect the rubbish, but be careful of sharps. If participants are unsure of an animal or any items they find on the beach, they should ask an adult before they pick it up.

Once the exploration time has finished, regroup participants to discuss what they have found at a designated location on the beach.

Remember to complete the *Beachcombing Datasheet* – ‘physical features’ component, prior to the exploration time.

Discussion after exploration time

Identification and classification of items found on your beachcombing field trip are an essential component of your participants’ understanding and learning.

After the exploration time has finished, use hula-hoops (or draw shapes in the sand) to sort (or classify) items found. Choose the classification level appropriate to the age group and level of understanding of your participants.

This can be achieved through a simple staged approach:

1. Classify as natural and man-made items.
2. Classify into plants, animals and man-made items (or marine debris).
3. Classify into relevant kingdoms (Animalia, Plantae and Protista) and man-made items.
4. Classify into relevant phyla and classes where appropriate.

Using the *Beachcombers Field Guide*, identify organisms found and complete the *Beachcombing Datasheet* – ‘beach specimen list’.


Once you have classified and identified your beachcombing items, discuss why classification is important.

You may also like to include the following concepts in your discussion:

Habitat

If possible, identify the various habitats where the coastal and marine life is found.

- Are you walking along a sandy beach or a limestone rocky shore?
- Are there any known or visible limestone or coral reefs, or seagrass meadows close by?



Take photographs of items found on your beach walk, especially items that you have not been able to identify.

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- Have some of the items you found come from a terrestrial (land-based) habitat?

Human Impact

Discuss the man-made items that you found along the beach.

- How did they get there?
- Where did they come from?
- What impacts do they have on the marine and coastal environment?

You may also choose to use the Tangaroa Blue Ocean Care Society, *Marine Debris Identification Manual* and *Debris Collection Datasheet* to assist in looking at the marine debris found along the beach.

Coastal Processes

Coastal processes play an important part in shaping our coastline. There are some additional activities within the kit that you may choose to conduct with your participants, depending on your area of interest. Check out the *Coastal Processes* section of the kit for further information.

At the completion of your beachcombing discussion, it's important to leave all plant and animal life (dead or alive) on the beach, as it all plays an important part in the coastal ecosystem.

Don't forget to take the rubbish home and leave nothing but your footprints behind!

Extension Activities:

The effects of site choice on beachcombing

Complete the beachcombing field trip at different sites – compare your findings.

Discuss if the type of coastal habitat (and adjacent habitats) and/or man-made features have an effect on your beachcombing experience.

Seasonal impacts on beachcombing

Complete the beachcombing field trip at different times of the year, at the same site. Observe and record how the beach changes over time.

Discuss the diversity of organisms you have found on the beach – are some animals seasonal? Are the same levels of rubbish present all year, or does this vary depending on the season? How does the coastline change throughout the year?

