

Tips for Teaching Outdoors: Intertidal Ethics and Safety

Exploring the Intertidal Zone Ethics

- Walk carefully and softly! Step on bare rock rather than on a living organism wherever possible. Avoid walking on any creatures (including the ones living on the rocks).
- Wet your hands with seawater from the beach before touching or holding an animal exposed by the tide.
- Explore along the exposed beach or from the edge of a tidepool rather than venturing into the water. This will provide better viewing conditions and allow animals to remain undisturbed.
- Turn over only small rocks and do so gently. A quick turnover may crush animals
 that are next to the rock or darting under the rock as their hiding place is uncovered.
 Replace the rock slowly and carefully. Also replace seaweed or other cover for shelter.
- Handle creatures as little as possible. Use dip nets and containers with seawater for observing. Don't keep creatures out of their habitat for long and return carefully back to the same location.
- Leave them attached! Creatures that cling to rocks, such as limpets, barnacles, chitons, snails, and sea stars may be harmed or killed if you try to remove them. Instead observe, photograph, or sketch them on their terms.
- Refill holes. If you dig in the sand to look for sand dwellers, such as clams or worms, make sure to put the animals back where you found them and to refill the holes.
- Observe creatures for short periods, keep them cool and in the shade, and return them from where they were taken. Care about their health and safety.
 - Keep your distance. Use binoculars, spotting scopes, and cameras with zoom lenses to get a closer look. Many mammals and birds use the intertidal and shoreline areas for refuge, feeding and nesting. Getting too close while these creatures are experiencing this part of their life cycle can cause significant stress and lead to nest abandonment or even death. Some marine animals, such as seals, leave the water or are exposed at low tide as part of their natural life cycle—there may be nothing wrong with them. If you think an animal is in trouble, contact local conservation authorities.
- Do not feed wildlife. Feeding wildlife may cause sickness or death from unnatural or contaminated food items, and habituates animals to people.









- Take only pictures and leave only footprints! Intertidal materials, such as rocks, shells, seaweeds, and driftwood, provide essential habitat for beach dwellers. Hermit crabs rely on empty snail shells for their home and protection. Driftwood and kelp also supply critical nutrients that work their way up the food chain to salmon and killer whales. The calcium carbonate found in empty shells cycles through the ocean and is needed for marine species such as snails and bivalves to create their shells.
- Be an ocean steward! Plastic and other trash is very harmful to sealife. Bring a garbage bag to pick up any trash while you are there.

Being Safe in the Intertidal Zone

- Check the tide times to avoid being cut off by rising tides. Start your intertidal exploration at low tide about an hour before the lowest point, giving yourself time to explore the lowest zones before the tide comes in. The lower the number in the tidal level chart, the lower the tide. Negative numbers and up to one meter are ideal for exploring intertidal areas.
- Wear a good pair of shoes. Intertidal areas are often wet, slippery and rocky.
 Avoid wearing flip-flops or loose sandals.
- Wear or bring layers. Temperature can change quickly by the sea and may be quite colder and windier than inland areas nearby. Make sure that you have a rain jacket or windbreaker and a sweater, no matter the forecast.
- Beware of slippery and uneven rock surfaces. Walk slowly and carefully (do the "great blue heron walk"). Avoid walking on seaweed-covered rocks which can be incredibly slippery.
- Do not explore the seashore alone. Always have a buddy and stay within sight of the group.
- Always face the ocean when exploring tide pools and keep your eye on the surf and water line. Be aware that waves can surge suddenly and sweep over areas that the tide has exposed. Retreat from areas when the tide is coming in or when surf is strong.
- Watch for changing weather. Be aware of clouds, winds, and brewing storms.

 Make sure you leave enough time to hike back to vehicles before inclement weather may arrive.
- Avoid handling marine life for their safety and your own. Some bristleworms can bite, jellyfish can sting even if they are washed ashore, and crabs will defend themselves with their pincers.





