

# Underwater Explorer Boat 11

Use the underwater explorer boat to investigate aquatic environments.  
Read the freshwater and beach safety tips before beginning your adventure!

- Think about all the different living things you see when exploring your environment. How are they alike and different?
- Scientists group living things based on shared characteristics. This is called taxonomy.
- The groups start out as large categories, such as plants and animals and are split into smaller and smaller groups based on their characteristics or physical traits
- For example, animals are divided into taxonomic groups based on whether they have a backbone (vertebrates) or not (invertebrates). Then, vertebrates are further divided into mammals, birds, fish, reptiles, and amphibians.

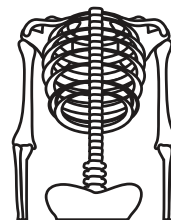


What living things do you find on the beach?

Are they...



Plants?  
or  
Animals?



Vertebrates?  
or  
Invertebrates?



What other characteristics do they have?

# Beach Activity - Shell Classification 12

Use your Underwater Explorer Boat to search for seashells in the water or hunt for shells along the shoreline in the sand. Once you find 10 or more shells, lay them out so you can look at them all. Look at the different characteristics of your shells such as color, shape, texture, size etc.

Sort your shells into two classes, or groups, based on the characteristics you chose.

- I chose to classify my shells by \_\_\_\_\_ and \_\_\_\_\_.
- How could you divide these shells further based on their shared characteristics? \_\_\_\_\_
- Were there any seashells that did not fit into either classification? \_\_\_\_\_ Why? \_\_\_\_\_
- Use your Florida Seashore Life field guide to identify what kind of shells you have found!



Look for other organisms along the beach and in the water.

What characteristics would you use to classify these?

Make up names for the different classes of organisms you identified.

## Bath Activity - Object Classification

Put some objects in your bathtub (ask an adult first)! Observe the objects using the boat and sort the objects based on characteristics you choose. You could organize them by shape, color, size, texture, or anything you want.



- I chose to classify my objects by \_\_\_\_\_ and \_\_\_\_\_.
- How could you divide these objects further based on their shared characteristics? \_\_\_\_\_
- Were there any objects that did not fit into either classification? Why? \_\_\_\_\_

## Sea Shell Guidelines



A common activity when you visit the beach is collecting shells. Although this can be a great way to explore this environment, there are some things to keep in mind.

### Never take anything that is alive

Always check the shells to see if there is a living creature inside. Do not take sand dollars or sea stars unless you are sure they are no longer alive.

### Leave the spiral shells

Hermit crabs depend on spiral shells of all sizes for their home. If a hermit crab is not able to find a shell, it is not able to protect itself from predators.

### Take less, or better yet, take only photos

Shells benefit plants, animals, and coastal ecosystems as a whole. Start a photo collection of the best shells you find and leave the actual shells behind.

Be sure to dry the boat after your Exploration!