

# WINDERWATER ADVENTURES

## GET READY TO DIVE IN WITH US AS WE EXPLORE LIFE UNDERWATER!

Water covers most of the Earth's surface. From oceans to rivers, to lakes and swamps, aquatic environments are diverse and so are the organisms that live within them. Whether it be the icy ocean water of the Arctic, a shallow pond in the forest or a fast-moving river, these areas all provide unique spaces for plants and animals to live. Some organisms make their homes on the seafloor, some float near the surface and others move and swim at different depths. In order to learn about how things live under water, people have invented different tools to help study them including underwater submersibles, scuba gear, sonar and waterproof cameras.

## DAY 3:

# **FLOAT, SINK OR SWIM**

Many kinds of animals can live in the same underwater environment and move through water in different ways. Some animals, like dolphins or whales, can float near the surface of the water. Other animals, like crayfish and crabs live at the bottom and can move by crawling over the ground. Many animals, like fish, float and swim throughout the middle of the water. Let's play a game to see how different objects either float on the surface of the water, sink to the bottom or stay in the middle!

#### Before you start, you should have:

- Six stones
- Six rubber bands
- Six bottle lids
- Six coins

- Six tin foil pieces (one inch x one inch)
- A bucket or large plastic tub
- Water
- Partner(s)





#### **Get started:**

- 1. Place the bucket outside where you have room to move around.
- 2. Fill the bucket with water.
- 3. Divide the coins, stone, bottle caps, rubber bands and tin foil pieces evenly between you and your partner(s) and place them on the ground at least 10 feet from the bucket. This will be the starting point.
- 4. Discuss with your partner(s):
- Which items do you think will sink?
- Which items do you think will float on the surface?
- Which items do you think will "swim" or stay in the middle of the water?
- 5. Line up at the starting point with your partner(s). Decide who will call out "Sink," "Swim," or "Float" first.
- 6. When you are ready to start, one player will call out "Sink," "Swim," or "Float." Each player will pick up one item they think will match and race to the bucket and drop it in before racing back to the starting point.
- 7. If the object does match, that player gets a point. (Example: The direction was "Float" and the object floated.)
- 8. Take turns calling out "Sink," "Swim," or "Float" until there are no more objects on the ground.
- 9. The player with the most points wins.
- 10. After the race, look at all the objects in the bucket.
- How many floated?
- How many sunk?
- How many stayed in the middle?
- Talk with your partner(s) about what you observed!

#### Keep exploring!

Use other objects from around your house to do the race.

#### What did you find?

Upload a photo or video and tag the Sam Noble Museum on Instagram or Facebook. You can also use the hashtags #samnoblehome and #summerexplorers to share!

# More information on things that sink and float:

https://www.dkfindout.com/us/ science/forces-and-motion/floatingand-sinking/



https://www.pbs.org/video/curiouscrew-buoyancy-ep-305/





