Ocean Currents

Ocean currents are like rivers of water flowing through the ocean. These currents move huge amounts of water all around the world, they redistribute water, heat, nutrients and oxygen, all important for sea (and human!) life.

Some currents are warm, like the **Gulf Stream**, which carries warm water from the tropics up the east coast of the United States. Others are cold, like the **California Current**, which brings cool water down the west coast of North America.

Ocean currents are driven by a mix of wind, water temperature, and the Earth's rotation. They can be found on the surface of the ocean, where they're often pushed by the wind, or deep below, where they're moved by differences in water temperature and salinity (how salty the water is).

These currents are important for life in the ocean because they help distribute heat and nutrients, making sure that different parts of the ocean are suitable for all kinds of sea creatures.

OCEAN CURRENTS

Learning about the ocean currents is made tangible with this easy ocean currents activity.

INSTRUCTIONS

STEP 1: Fill the container about halfway with cold water.

STEP 2: Mix in some blue food coloring.

STEP 3: Mix in a cup of ice cubes.

STEP 4: Add your plastic fish to the water.

STEP 5: Boil 2 cups of water and mix in red food coloring to make it a dark red.

STEP 6: Slowing pour the red hot water into the cold water and watch the currents start to form.

SUPPLIES

9 x 13" clear pan
Cold water
Boiling water
Ice cubes
Red and blue food coloring
Rubber or plastic fish

WHAT ARE OCEAN CURRENTS?

An ocean current is a continuous flow of water. Some currents are called surface currents, and some currents flow hundreds of feet below the surface of the water and are called deep ocean currents. Make sure to check out the different layers of the ocean!

WHAT CAUSES OCEAN CURRENTS?

Surface currents are usually caused by the wind. As the wind changes, the current may change as well. The Earth's rotation can also affect ocean currents. This causes currents to flow clockwise in the northern hemisphere and counterclockwise in the southern hemisphere.

Ocean Currents Observations

Use this worksheet to process and evaluate your observations.

What do you think will happen when hot water is added to cold water?

Where do you think the hot water will move—in the middle, top, or bottom?

What happened when the hot red water was poured into the cold blue water?

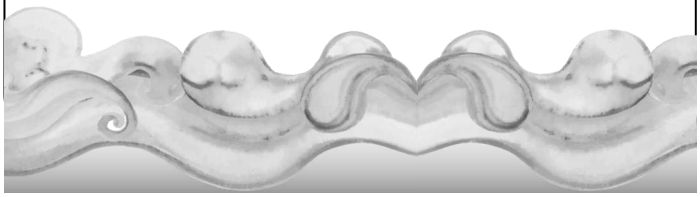
How did the movement of the water change over time?

What do you notice happening to the plastic fish?

Where did the cold water stay? Where did the warm water go?

WARM & COLD OCEAN CURRENTS

Materials I Used:



What I think will happen:

What I did:

What I Saw:

What Happened:

Draw it:

NEXT STEPS

LITTLE BINS FOR LITTLE HANDS

IF YOU LIKED THIS ACTIVITY, TRY THESE PROJECTS:

- OCEAN LAYERS JAR
- OCEAN CURRENTS
- WAVE IN A BOTTLE
- HOW DO SQUID MOVE?

5-DAY LESSON PLAN!

TURN THIS INTO A FULL OCEAN SCIENCE UNIT!

OCEAN STEM LABS

EVERY PACK EVERY PRINTABLE

Get the ALL ACCESS PASS!

Little Bins for Little Hands helps make hands-on learning easy for families and educators by providing simple, engaging science experiments, STEM activities, art projects, and printable resources that encourage curiosity, creativity, and learning through play.