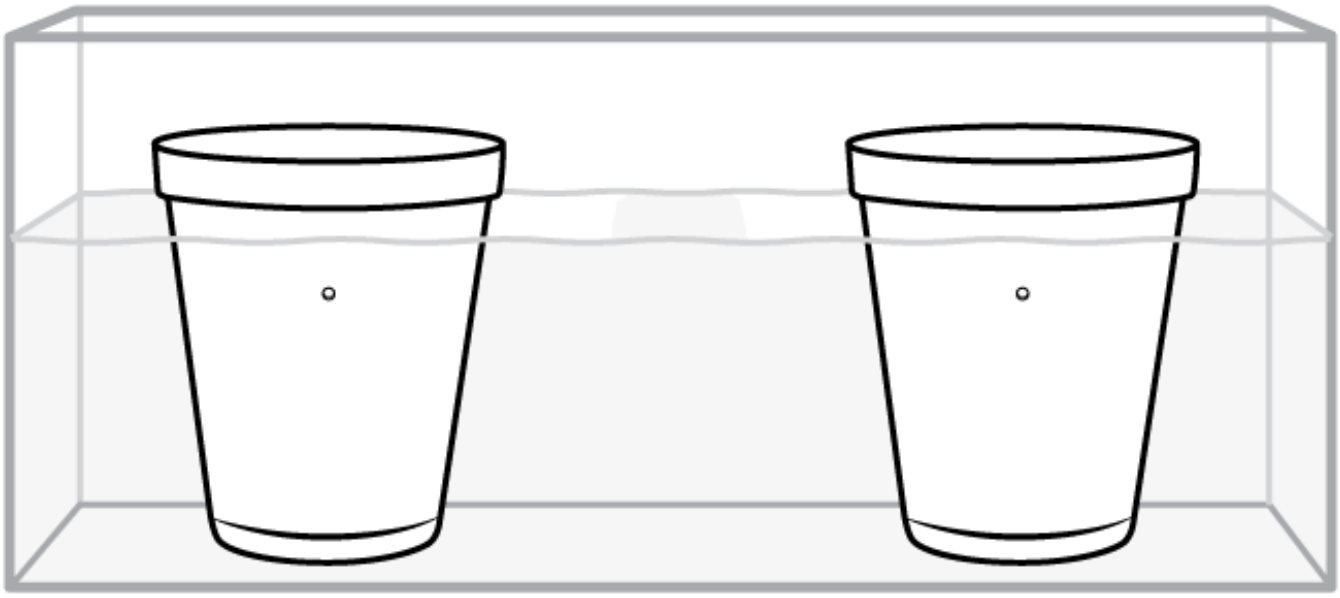
Name: _____ Date: _____

Investigating Deep Ocean Currents

Part 1: Deep Ocean Currents Model

In the diagram below, draw and label your observations of the deep ocean currents model.



What are your ideas for why the two types of water moved differently?

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Name: _____ Date: _____

Investigating Deep Ocean Currents (continued)

Part 2: Layering Liquids

Goal: Use the four liquids to make as many distinct layers as possible.

Plan each test and explain your reasoning for the plan in the table below. Color the prediction diagram to show what you think the layers will look like. Complete the test and record your results. Use what you learned from the previous test when you plan the next test.

Color Key:

Red = Hot-Salty Blue = Cold-Salty Yellow = Hot-Fresh Green = Cold-Fresh

Test 1: Which liquids will you add and in what order will you add them? Reasoning:	**Prediction**	**Result**
Test 2: Which liquids will you add and in what order will you add them? Reasoning:	**Prediction**	**Result**

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Investigating Deep Ocean Currents (continued)

Test 3: Which liquids will you add and in what order will you add them? Reasoning:	**Prediction**	**Result**
Test 4: Which liquids will you add and in what order will you add them? Reasoning:	**Prediction**	**Result**
Test 5: Which liquids will you add and in what order will you add them? Reasoning:	**Prediction**	**Result**

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Investigating Deep Ocean Currents (continued)

Test 6: Which liquids will you add and in what order will you add them? Reasoning:	**Prediction**	**Result**
Test 7: Which liquids will you add and in what order will you add them? Reasoning:	**Prediction**	**Result**

Color Key:

Red = Hot-Salty Blue = Cold-Salty Yellow = Hot-Fresh Green = Cold-Fresh

Name: _____ Date: _____

Investigating Deep Ocean Currents (continued)

Part 3: Identifying Deep Ocean Currents

1. Why do you think the purple water and the orange water in the deep ocean currents model moved in the ways they did?

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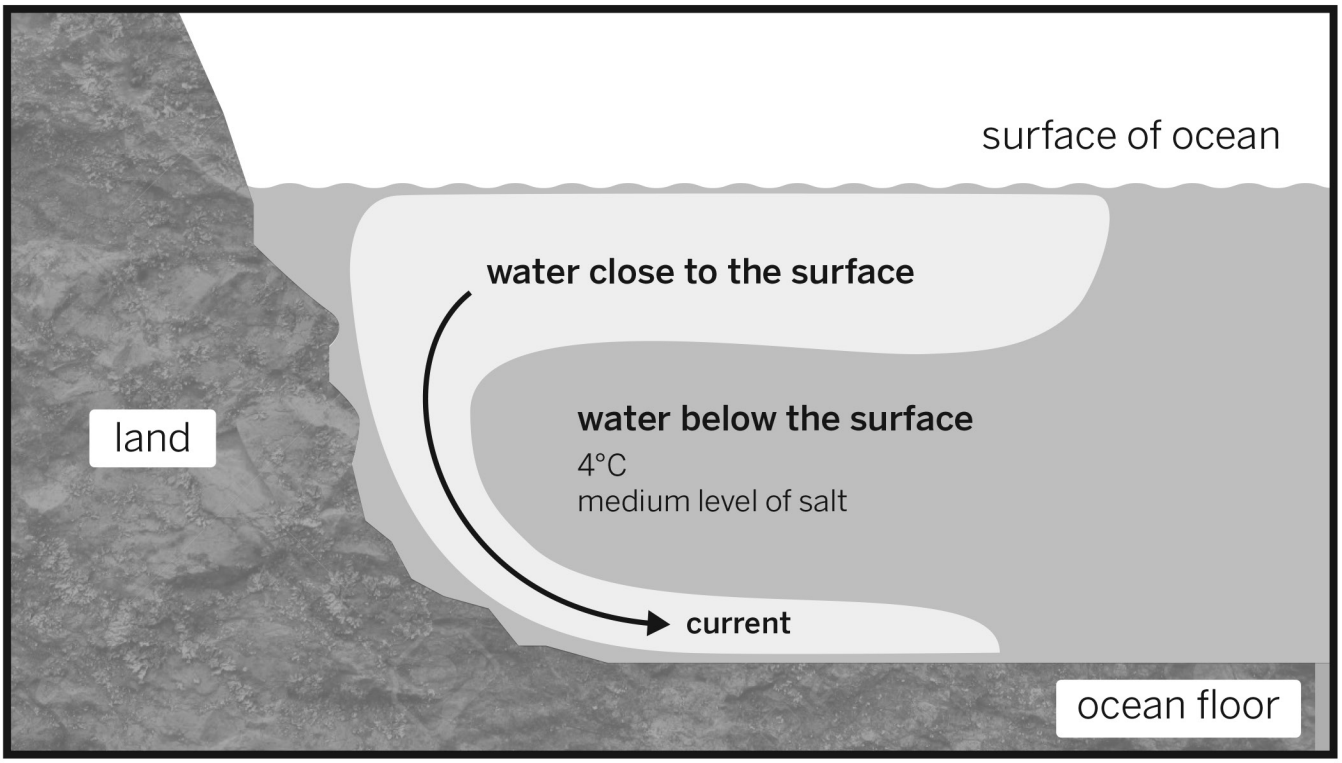
2. Scientists are investigating a certain deep ocean current. The scientists have found that the water close to the surface is sinking through the water below it, forming a current close to the bottom of the ocean. Scientists have identified the water below the surface as having a medium level of salt and a temperature of 4°C. Which of the following could be the identity of the water close to the surface (the water that is sinking)? (check one)

- ☐ water 2°C with high level of salt
- ☐ water 20°C with no salt (freshwater)

Explain your choice on the following page.

Name: _____ Date: _____

Investigating Deep Ocean Currents (continued)



Explain your choice.

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