Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Salinity

**Purpose**

The purpose of this lab is to explore the effect of salinity on objects in water.[[1]](#endnote-2)

**Procedure**

**Materials**

1. Two clear cups
2. Water
3. Salt
4. Potato piece
5. Carrot piece
6. Spoon

**Sequence of Steps**

C:\Users\Angela\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\DRP2N1IJ\MCj04242300000[1].wmf

1. Read through the sequence of steps and then develop a hypothesis reflecting how much salt you think will be needed to make the carrot and potato float.
2. Obtain two clear plastic cups. Fill each cup half-full with water.
3. Place a piece of carrot into the first cup. Does it float or sink?
4. Using a plastic spoon, add salt, one spoonful at a time, to the cup of water with the carrot in it. Stir the solution and record the number of spoonfuls added until your observation changes.
5. Place a piece of potato into the second cup of water.
6. C:\Users\Angela\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\DRP2N1IJ\MCj04242300000[1].wmfRepeat step 3 for the potato and record your information.
7. Complete review questions.

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**Hypotheses**

**(Carrot)** If \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**(Potato)** If \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Observations:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Sink or Float?** | **1 tbsp salt** | **2 tbsp salt** | **3 tbsp salt** | **4 tbsp salt** | **5 tbsp salt** | **6 tbsp salt** |
| **Carrot** |  |  |  |  |  |  |  |
| **Potato** |  |  |  |  |  |  |  |

**Conclusion:**

1. Which object, the carrot or the potato, required the greatest amount of salt?
2. Compare your data with classmates. What are some possible reasons for inconsistent results?
3. What happens to the salinity (salt concentration) as salt is added to the water?
4. If you were swimming, would it be easier to stay afloat in an ocean or a freshwater lake? Why?
5. How does the salinity in an aquatic habitat affect species for commercial production/harvesting, sport fishing and other purposes?

**Bonus Question**

If you put one hand in salt water and the other in fresh water for a long period of time, what effect would each type of water have on your skin?

1. Machado, Kristen (2008). Salinity. *East Union High School Ag Dept., Manteca.* [↑](#endnote-ref-2)