



Ice Cubes Challenge

Thought Experiment –think about this on your own and record your ideas

1. Find two cups of water on the table. One is labeled “salt water,” the other is labeled “fresh water.”
2. If you place two ice cubes in each cup at the same time, and don’t stir or disturb the cups, in which cup do you predict the ice will melt the fastest?

What makes you think that? Explain your reasoning for why you think that will happen.

3. Once everyone has recorded their ideas, discuss your ideas with the group.

Do the Experiment—with your group

1. Gently place two ice cubes in each cup, and carefully observe what happens. Do not stir or disturb the water in the cups, or remove the ice cubes during your observations.
2. Describe what you notice as the ice cubes melt. Check the ice cubes about every 30 seconds to 1 minute to observe the progress.
3. After about 3 minutes, what is the result?
4. Why do you think that happened? Discuss your ideas about what you think is happening with your group. Record your ideas.

Additional Observations to help develop an Explanation

1. Add a couple of drops of food coloring to each cup without disturbing the water in the cup.
2. Compare what happens in each cup.
3. Does this help to explain the results? Explain what you and your group think is happening.