Investigative Series #4 - Melting

#4a: Melting Wax

1. Describe what is happening as your teacher heats the candle wax. Avoid using the word "melt".

2. If the wax is made of tiny little pieces like the copper wire from the previous demo, what just happened to them as the wax was heated?

3. When the teacher taps the container with marbles, how does the model represent what is happening to the wax?

#4b: Melting Ice

1. Now look at the ice, what is happening to the ice. Avoid using the word "melt."

2. Using the marble model analogy, explain what is happening to the water as it moves from the ice cube to liquid water?

3. How could this occur since we did not heat up the ice?

#4c: Food Coloring in Cold vs Hot Water

In table groups:

- 1. Get one beaker and put in about 100mL of ice cold water, let it sit until it stops swirling around.
- 2. Get another beaker and put in about 100mL of hot water, let it sit until it stops swirling around.
- 3. Predict what you will see when you drop one drop of food coloring into cold and hot water: In cold water:

In hot water:

- 4. Drop one drop of food coloring into the center of the surface of the cold water; do not stir or swirl; notice how the food coloring moves.
- 5. Drop one drop of food coloring into the center of the surface of the hot water; do not stir or swirl; notice how the food coloring moves.
- 6. Compare the two beakers of water. Write down your observations and the differences you notice:

7. Write what you noticed and how the idea that water has tiny little separate particles can help explain the food coloring movements.