SASP 2011 *Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**Mesmerizing Colors**

**Get these:** ● plastic cup

● food coloring

● water

**Step A**

• Read the instructions BEFORE doing anything. PREDICT what will happen when you put the color in the water. Write your prediction in your science notebook.

• Now fill your beaker with room-temperature tap water. Let it sit for a minute (do not disturb it).

• Gently put ONE drop of food coloring into the beaker.

• In your science notebook, observe and describe what the food coloring does in words and pictures.

• In your group, come up with a way to diagram the movement on paper or on a white board.



**Step B**

• Prepare three cups of water:

(1) **hot**: As hot as a hot shower. (put this in your GLASS JAR)

(2) **room-temperature** (tap)

(3) **cold**: Put ice cubes into tap water in a beaker or cup, let sit about 5 minutes, and then strain out the ice.

Exact temperatures are not needed, as you are going to make only qualitative observations.

After you prepare the three beakers, let them sit for about a minute (do not disturb them).

• Simultaneously, place ONE drop of food coloring in each container.   
Observe and record the behavior of the food coloring in your science notebook.

• In your group, come up with a way to diagram on your whiteboard the different motions in the different temperatures of water.

**Explain** In your group, come up with an explanation for why the food coloring behaved differently in the different temperatures of water. Add your explanation to your whiteboard.

When you are satisfied with your explanation, write it in your science notebook.