Hot Chocolate Science

Chemistry | 10-15 minutes

In this experiment, students will investigate the best water temperature to make hot chocolate. Best part of this activity? You can taste it!

Materials Needed

Per student:

- 2 mugs or paper hot cups
- A few spoonfuls of hot chocolate mix
- 1 spoon
- Cold water (Enough to fill up half of the cup)
- Hot water (Enough to fill up half of the cup)
- 1 copy of printout to record results (½ page)

Steps:

1. Ask the students to make a prediction- what temperature of water will dissolve hot chocolate mix faster? Have them choose between hot and cold. Write the prediction down on the printout.
2. Have students put one spoonful of hot chocolate mix in each of the cups.
3. Pour cold water to fill up ½ of one of the two cups and have the student count out loud while stirring.
4. When the powder dissolves, have the student write down what number they counted to.
5. Do the same carefully using hot water (heated and poured by an adult).
6. Time it, and log the time it takes to dissolve.

7. Compare the results to the initial prediction.
8. Have students talk to each other and try to figure out what happened.
    - Why did the hot water dissolve faster?

Explanation:

Hot water has more energy in it than cold water does. That means that the molecules in the water move faster. The molecules attack and break down the powder faster in hot water than cold.

Real World:

How much more real world can this get? Who wants to drink a cold cup of wet powder?

Printout is on the next page.

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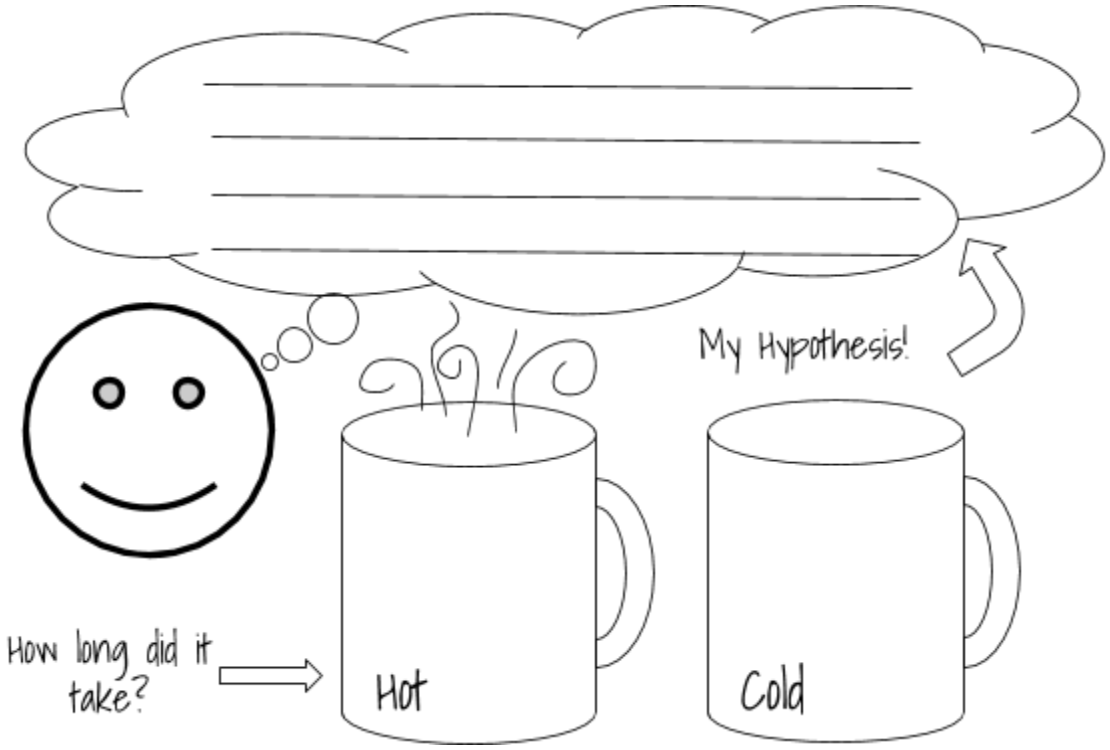

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