Hot Water in Cold Water

Summary

Students will measure the changes in temperature between hot water placed in cold water to see how moving molecules can transfer energy.

Time Frame

1 class periods of 60 minutes each

Group Size

Small Groups

Materials

Per group: flask (50 mL) beaker (250 mL) hot water cold water 2 Thermometers foam rubber sleeve for beaker clock or stopwatch

- worksheet

Instructional Procedures

Ask students what they do when they are cold. What are ways they make the molecule of their bodies increase their speed? Ask how a blanket keeps them warm. If they think the blanket is warm by itself, work to erase this misconception.

Read the question and allow students time to make a prediction.

Show them where the materials are and allow time for the experiment to proceed.

Discuss the results with the students. Make sure they understand that the hot water increases the movement of molecules in the glass that, in turn, increases the speed of molecules in the cold water.

Assessment Plan

Scoring Guide

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Students stay on task during the experiment4	ł
Students graph reflects the data	4
Questions are correctly answered4	,

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

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