

MIXING WATER

Question

If you mixed equal volumes of 50°C hot water and 10°C cold water, what do you think the temperature of the mixture would be?

Prediction

Predict the temperature of the mixture. Answers will vary.

Reasoning

Explain the thinking behind your prediction.

Answers will vary.

Procedure

Describe an experiment you can conduct to check your prediction.

Answers will vary.

Data

Conduct a water-mixing experiment.

We mixed _____ mL of hot water and _____ mL of cold water.

$T_{\text{hot}} (^{\circ}\text{C})$	$T_{\text{cold}} (^{\circ}\text{C})$	Prediction ($^{\circ}\text{C}$)	$T_{\text{final}} (^{\circ}\text{C})$

Write the equation for calculating final temperature when equal volumes of water are mixed.

$$T_f = \frac{T_1 + T_2}{2}$$