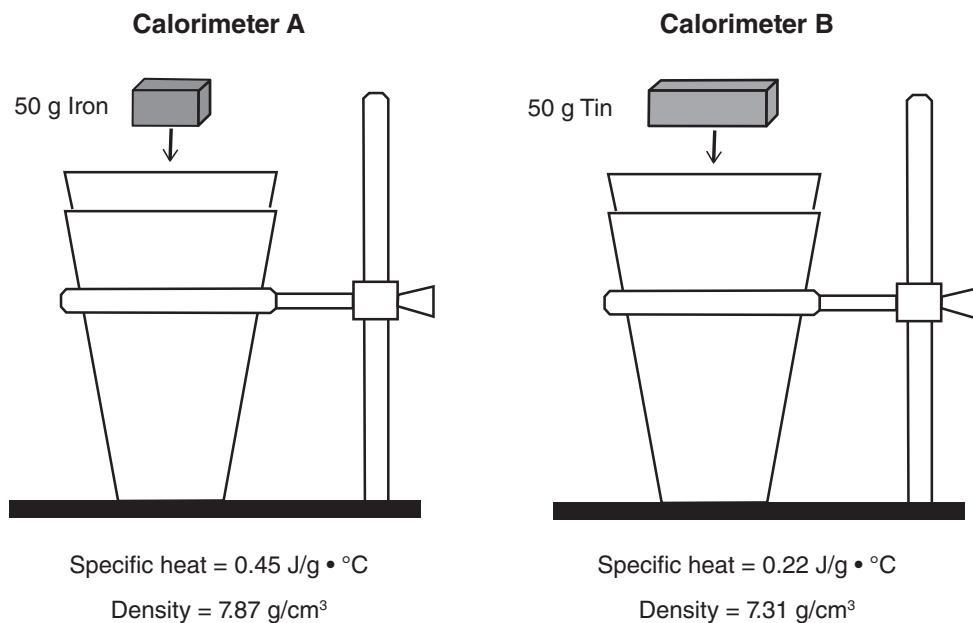


Checkout Questions

Lab 15. Thermal Energy and Specific Heat

Which Material Has the Greatest Specific Heat?

1. The diagrams below show a 50 g piece of iron and a 50 g piece of tin being added to 50 ml of water in two different calorimeters. The initial temperature of each piece of metal is 100°C . The initial temperature of the water in each calorimeter is 25°C .



What do you think will happen to the temperature of the water in each calorimeter?

- a. The temperature of the water in calorimeter A will increase more than it will in calorimeter B.
- b. The temperature of the water in calorimeter B will increase more than it will in calorimeter A.
- c. The temperature of the water in calorimeters A and B will go up by the same amount.
- d. Unsure

How do you know?

2. "Heat from the metal transferred into the water" is an example of an observation.
 - a. I agree with this statement.
 - b. I disagree with this statement.

Explain your answer, using an example from your investigation about specific heat.

3. Investigations are only scientific if someone designs and then carries out an experiment.
 - a. I agree with this statement.
 - b. I disagree with this statement.

Explain your answer, using an example from your investigation about specific heat.

4. Scientists often need to define a system before they attempt to study it. Explain what it means to define a system and then explain why it is important in science, using an example from your investigation about specific heat.

5. Scientists often need to track how energy or matter moves into, out of, or within systems to explain a natural phenomenon. Explain why tracking energy or matter is so useful in science, using an example from your investigation about specific heat.