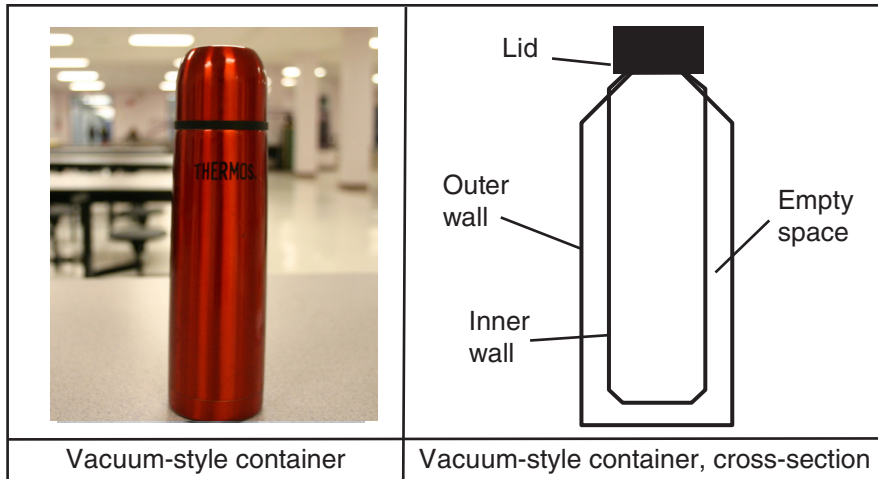


## Checkout Questions

# Lab 5. Design Challenge

## Which Design Will Cool a Soda the Best?

1. Describe what you know about materials that act as insulators and conductors when it comes to heat energy.
  
  
  
  
  
  
  
  
  
  
2. Insulated coffee mugs are popular because they keep coffee warm for much longer than a simple paper cup. Vacuum-style containers, such as the one shown below, are made with empty space between the walls.



Use what you know about insulators and conductors to explain why this style of container is good for keeping liquids hot or cold.

3. Scientists use the same procedures to answer all the questions they investigate in their work.
- a. I agree with this statement.
  - b. I disagree with this statement.

Explain your answer, using an example from your investigation about thermal energy.

4. Scientists do not need to be creative and have a good imagination.
- a. I agree with this statement.
  - b. I disagree with this statement.

Explain your answer, using an example from your investigation about thermal energy.

5. Scientists often study the various relationships between the structure of an object and its functions. Explain why recognizing these relationships is important, using an example from your investigation about thermal energy.

6. It is often important to track how matter flows into, out of, and within system during an investigation. Explain why it is important to keep track of matter when studying a system, using an example from your investigation about thermal energy.