

name:_____

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Unit 3: Energy

Lesson 3.1 Energy

1. The universe is made of matter and energy.
2. Matter and energy are related by the $E = mc^2$ equation.
3. Energy can be potential or kinetic energy.

Hot Rocks lab

lab question What happens to temperature and energy when you combine hot rocks and cold water?

Materials

- hot rocks (marbles)
- glass cup
- 50ml beaker
- graduated cylinder

Procedure

1. Use the graduated cylinder to put 20 mL of water in a 50 mL beaker.
2. Measure the temperature of the water and the hot rocks using the infrared thermometer. Record both values in the table below.
3. Pour the water into the cup with the hot rocks.
4. Wait 1 minute and then measure the temperature of the water and the rocks in the cup. Record the value in the table below.

Data

	Before combining water and rocks	After combining water and rocks
water temperature		
hot rock temperature		