

name:_____

period:_____

Unit 3: Energy

Warm up

1. How hot does the water get in °C _____
2. _____ are caused by the thermal shock of _____ meeting water.
3. When lava boils ocean water it creates _____ acid microscopic _____ shards and super heated _____.
4. What happened to the ice in the lava?
5. how long have we been studying Mt Etna? _____

Lesson 3.1 Energy

1. The universe is made of _____ and _____.
2. Matter and energy are related by the _____ equation.
3. Energy can be _____ or _____ energy.
4. _____ is a measure of the _____ energy of atoms and molecules.
5. The _____ energy of an object is the energy from its _____.
6. The _____ energy of an object is the energy from its _____.

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		