**9.1 Guided Reading**

**Physical Science – Matter Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Per:\_\_\_**

1. The flow of thermal energy is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Heat flows from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_energy.
   1. Higher, lower b. lower, higher
3. Why does it take more energy to heat a large pot of water compared to a small pot of water?
4. What is specific heat?
5. Is the specific heat of water higher or lower than of Aluminum?
6. If the specific heat of an object is \_\_\_\_\_\_\_\_\_\_\_\_\_\_, it takes longer to heat up compared to an object with a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ specific heat.
   1. Low, higher b. high, lower c. high, higher
7. Explain why the high specific heat of water is so important to planet Earth.
8. Write the equation for calculating energy changes from heat.