

Section 2 Review

NSES PS 3a, 3b

SECTION VOCABULARY

convection the transfer of thermal energy by the circulation or movement of a liquid or gas

heat the energy transferred between objects that are at different temperatures

radiation the transfer of energy as electromagnetic waves

specific heat the quantity of heat required to raise a unit mass of homogeneous material 1 K or 1°C in a specified way given constant pressure and volume

thermal conduction the transfer of energy as heat through a material

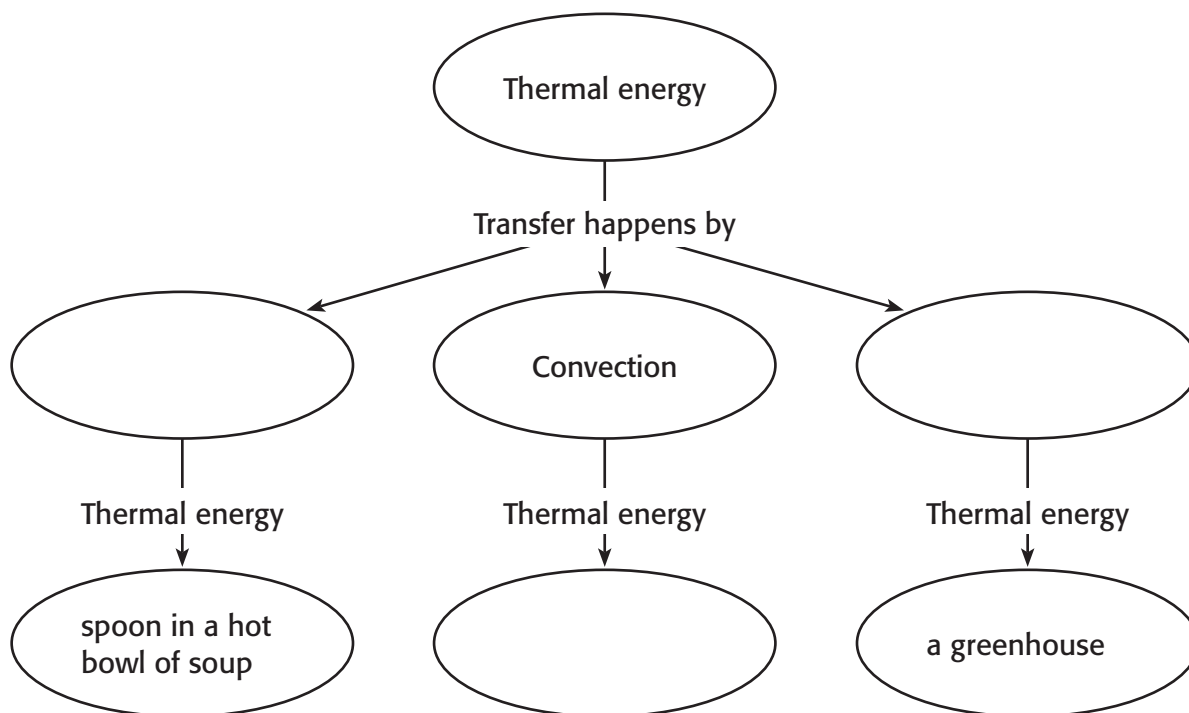
thermal conductor a material through which energy can be transferred as heat

thermal energy the kinetic energy of a substance's atoms

thermal insulator a material that reduces or prevents the transfer of heat

1. **Explain** Why can heat describe both hot and cold objects?

2. **Identify** Use the following Concept Map to describe how thermal energy moves from one object to another.



3. **Calculate** The specific heat of lead is 128 J/kg•°C. How much heat is needed to raise the temperature of a 0.015 kg sample of lead by 10°C? Show your work.