

Unit 3B: Thermal Energy
PowerPoint Review Worksheet

Matching

A. Absolute Zero
B. Celsius
C. Conduction
D. Convection
E. Entropy
F. Fahrenheit

G. Heat
H. Heat Engine
I. Internal Energy
J. 0th Law of Thermodynamics
K. 1st Law of Thermodynamics
L. 2nd Law of Thermodynamics
M. 3rd Law of Thermodynamics

N. Radiation
O. Refrigerator
P. Temperature
Q. Thermal Energy
R. Thermodynamics
S. Thermometer

1. _____ The total amount of energy contained in an object.
2. _____ This states that when two objects are in contact, heat will flow until they are in thermal equilibrium.
3. _____ Heat that is transferred by movement of a fluid.
4. _____ The energy transferred between objects in contact as a result of temperature difference.
5. _____ A device that uses heat to do work and but is not 100% efficient & expels excess heat.
6. _____ A measure of the average molecular kinetic energy.
7. _____ Thermal energy in motion.
8. _____ This states that it is impossible to achieve a temperature of absolute zero.
9. _____ A device that uses work to move heat from a cold place to a hotter one.
10. _____ The amount of disorder in a system.
11. _____ A transfer of heat energy through space by means of electromagnetic waves.
12. _____ The study of the flow of heat energy.
13. _____ This states that heat will always flow from hot objects to cold objects, efficiency is always less than 100%, and total disorder can never decrease.
14. _____ The lowest possible temperature on the Kelvin scale where all molecules would stop.
15. _____ This states that energy is never created or destroyed: heat lost by an object is gained by another.
16. _____ A unit of measurement that was once called Centigrade because there are 100 degrees between the freezing and boiling points of water in this scale.
17. _____ A unit of temperature in which the freezing point of water is 32 degrees.
18. _____ A capillary tube with a liquid that is calibrated to measure temperature.
19. _____ The total energy of motion of the molecules in an object.

Multiple Choice.

20. Which of the following things has the most thermal energy?
A) The ocean B) A camp fire C) A hot oven D) A hot water bottle
21. What causes heat to flow?
A) Temperature B) Thermal Energy C) Temperature Difference D) Coldness
22. Two objects in thermal equilibrium have
A) the same energy B) the same temperature C) different temperatures D) the same heat
23. Which of the following is the best conductor of heat?
A) Wood B) Water C) Aluminum D) Plastic