

# Heat and Thermal Energy Crossword

Easy | 10 clues | Student Worksheet

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Directions: Use the clues to complete the grid. Omit spaces, punctuation, and hyphens.

[illegible]

## ACROSS

1. A condition of equal temperature with no net heat transfer between them
4. Condition in which objects have equal temperature and there is no net heat transfer.
6. Way does net heat transfer occur spontaneously between contacting objects
7. Energy transferred between objects because of a temperature difference.
8. Energy transfer associated with bulk movement of a fluid

### ACROSS (continued)

9. Energy required to raise the temperature of a unit mass by one degree
10. Energy transfer through interactions within or between contacting materials

**DOWN**

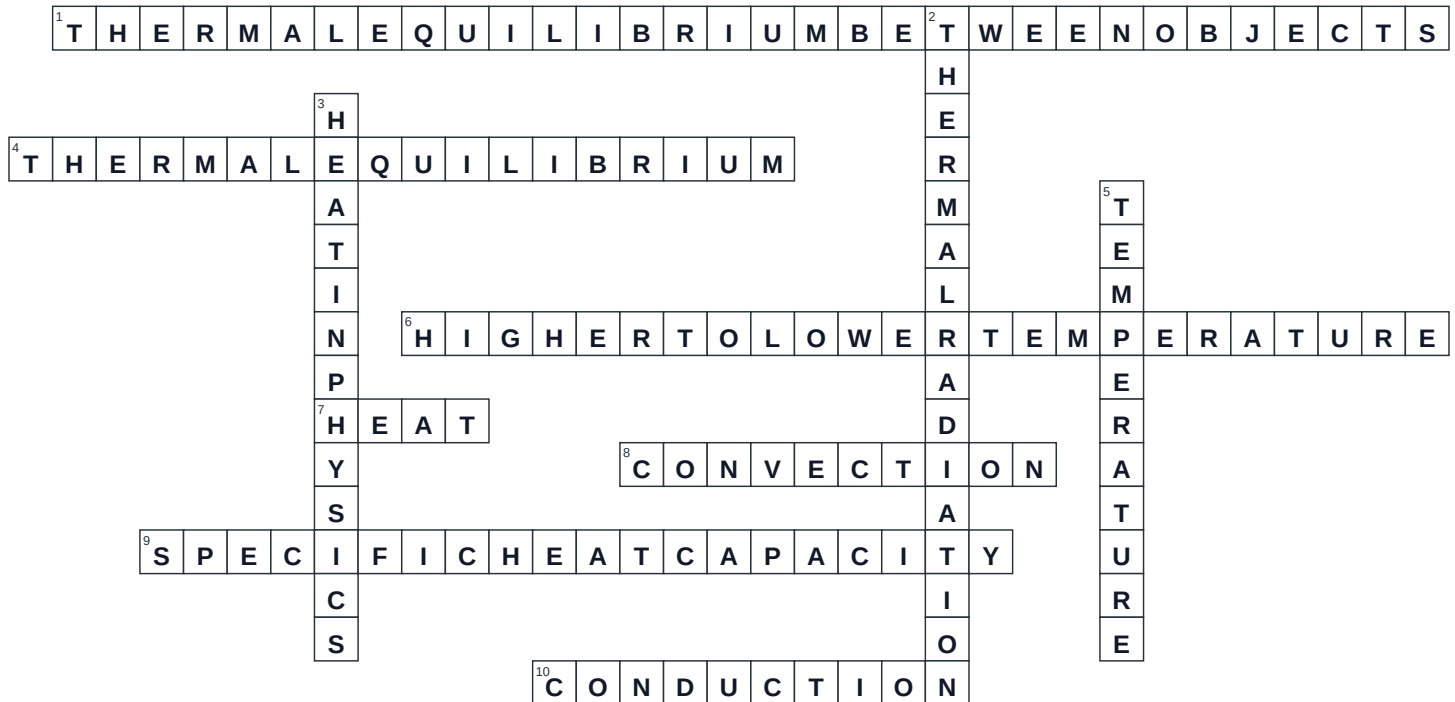
2. Energy transfer by electromagnetic waves
3. Energy transferred because of a temperature difference
5. Measure related to the average kinetic energy of particles

# Heat and Thermal Energy Crossword

Easy | 10 clues | Teacher Answer Key

## TEACHER ANSWER KEY

Completed grid and numbered answers. Spaces and punctuation are omitted in the grid.



### ACROSS

1. Thermal Equilibrium Between Objects
4. Thermal equilibrium
6. Higher To Lower Temperature
7. Heat
8. Convection
9. Specific Heat Capacity

### ACROSS (continued)

10. Conduction

### DOWN

2. Thermal Radiation
3. Heat In Physics
5. Temperature

## Medium | 15 clues | Student Worksheet

Date: \_\_\_\_\_

[illegible]**ACROSS (continued)**

13. Condition in which objects have equal temperature and there is no net heat transfer.
14. Energy required to raise the temperature of a unit mass by one degree
15. Energy transfer through interactions within or between contacting materials

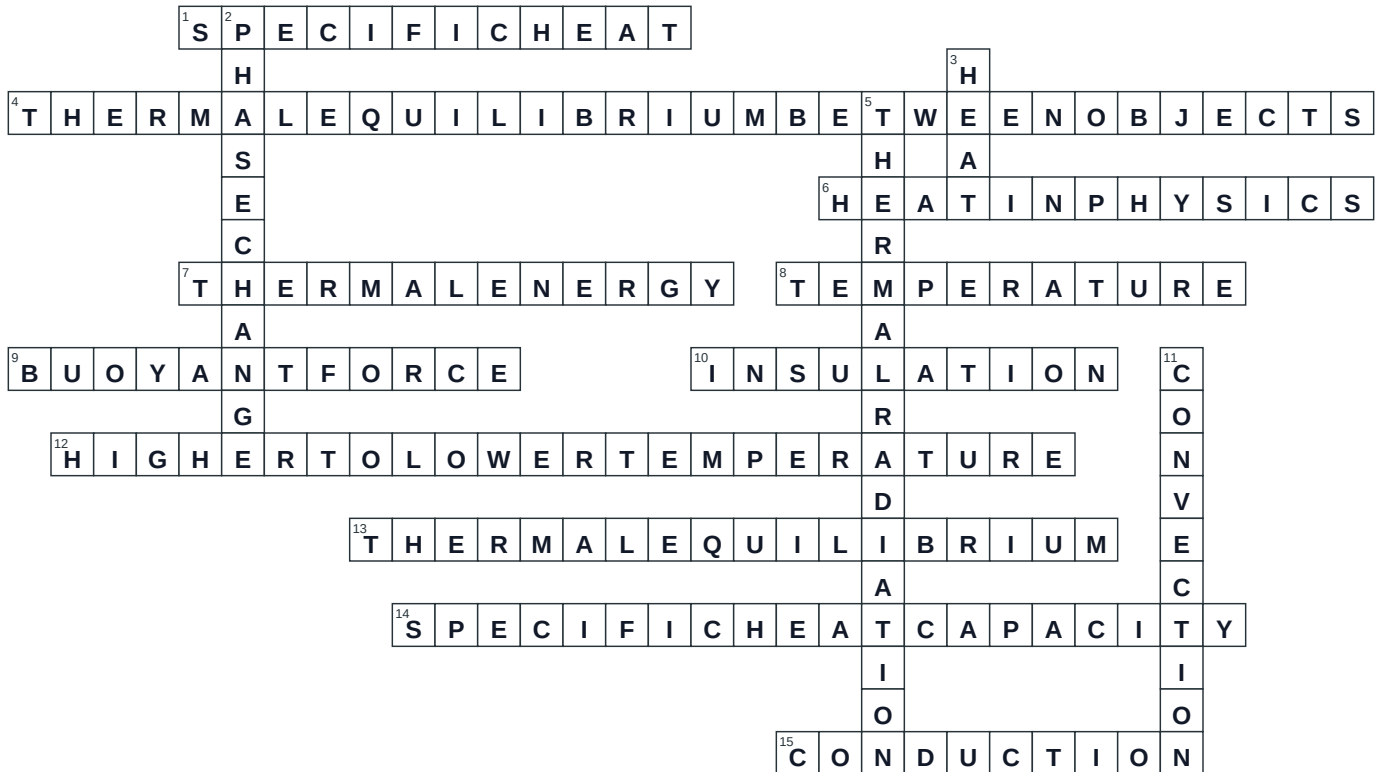
2. Physical change from one state of matter to another.
3. Energy transferred between objects because of a temperature difference.
5. Energy transfer by electromagnetic waves
11. Energy transfer associated with bulk movement of a fluid

# Heat and Thermal Energy Crossword

Medium | 15 clues | Teacher Answer Key

## TEACHER ANSWER KEY

Completed grid and numbered answers. Spaces and punctuation are omitted in the grid.



## ACROSS

1. Specific heat
4. Thermal Equilibrium Between Objects
6. Heat In Physics
7. Thermal energy
8. Temperature
9. Buoyant force
10. Insulation
12. Higher To Lower Temperature

## ACROSS (continued)

13. Thermal equilibrium
14. Specific Heat Capacity
15. Conduction

## DOWN

2. Phase change
3. Heat
5. Thermal Radiation
11. Convection

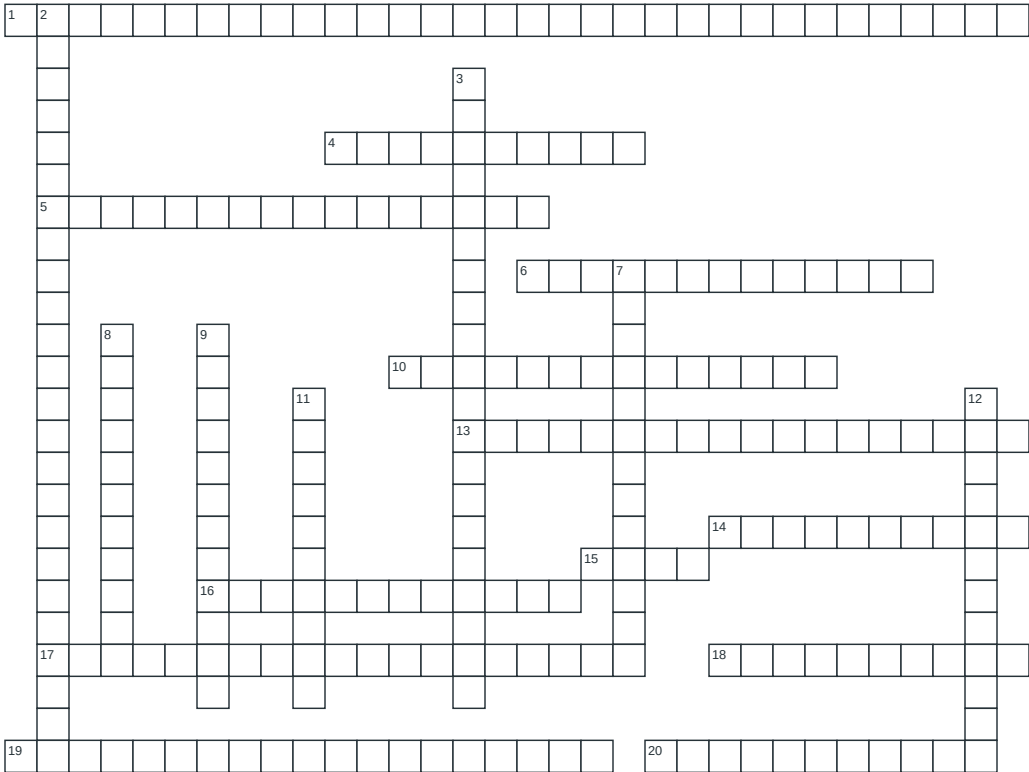
# Heat and Thermal Energy Crossword

Hard | 20 clues | Student Worksheet

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Directions: Use the clues to complete the grid. Omit spaces, punctuation, and hyphens.



ACROSS

- 1. A condition of equal temperature with no net heat transfer between them
- 4. Energy transfer associated with bulk movement of a fluid
- 5. Energy transfer by electromagnetic waves
- 6. Energy transferred because of a temperature difference
- 10. Movement of energy from one object or region to another.
- 13. Condition in which objects have equal temperature and there is no net heat transfer.
- 14. Energy transferred during a phase change without changing temperature.
- 15. Energy transferred between objects because of a temperature difference.
- 16. Energy required to raise the temperature of an entire object by one degree.
- 17. Measure of how readily a material transfers thermal energy.

ACROSS (continued)

- 18. Material or design that reduces the rate of heat transfer.
- 19. Change in temperature across a distance that can drive heat transfer.
- 20. Measure related to the average kinetic energy of particles

DOWN

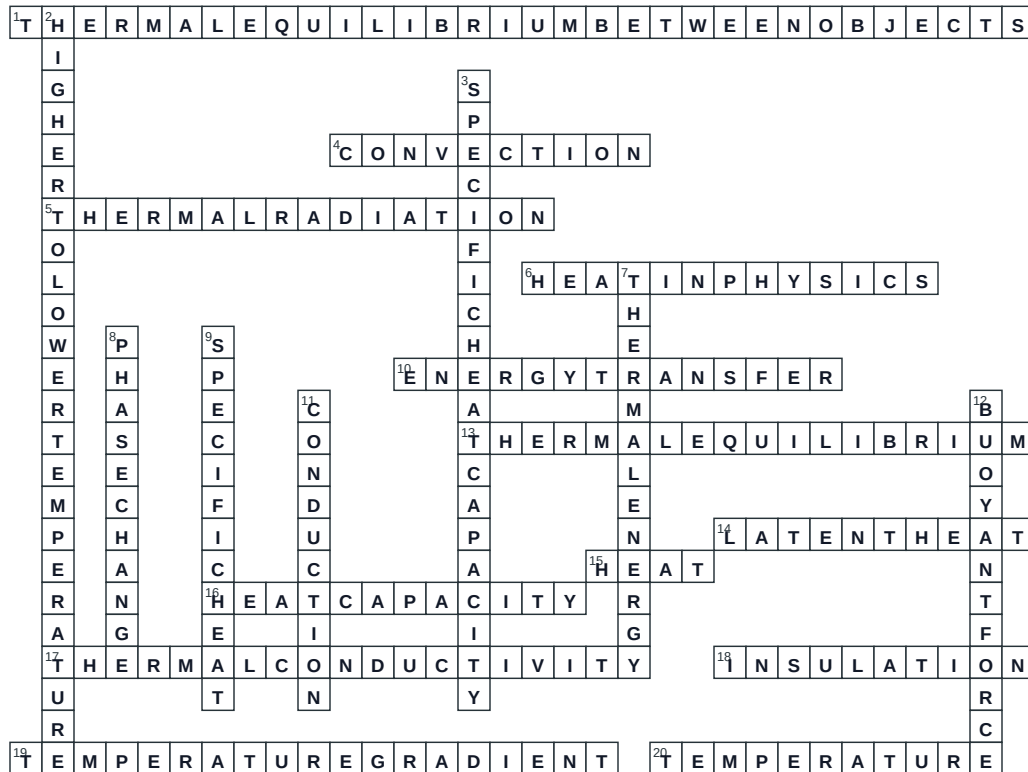
- 2. Way does net heat transfer occur spontaneously between contacting objects
- 3. Energy required to raise the temperature of a unit mass by one degree
- 7. Energy associated with the motion and interactions of particles in a substance.
- 8. Physical change from one state of matter to another.
- 9. Energy needed per unit mass to raise a substance one degree.
- 11. Energy transfer through interactions within or between contacting materials
- 12. Upward force a fluid exerts on an object within it.

# Heat and Thermal Energy Crossword

Hard | 20 clues | Teacher Answer Key

## TEACHER ANSWER KEY

Completed grid and numbered answers. Spaces and punctuation are omitted in the grid.



### ACROSS

1. Thermal Equilibrium Between Objects
4. Convection
5. Thermal Radiation
6. Heat In Physics
10. Energy transfer
13. Thermal equilibrium
14. Latent heat
15. Heat
16. Heat capacity
17. Thermal conductivity
18. Insulation

### ACROSS (continued)

19. Temperature gradient
20. Temperature

### DOWN

2. Higher To Lower Temperature
3. Specific Heat Capacity
7. Thermal energy
8. Phase change
9. Specific heat
11. Conduction
12. Buoyant force