

HEAT AND LIGHT REVIEW

1. **What is conduction?**

- a) When a liquid is turned into a gas
- b) When light bounces off a surface and change direction
- c) It is when two objects are in contact and heat from one object is transferred to the other object

2. **What of these processes are ALL changes of state?**

- a) Melting, evaporation, solidification and condensation
- b) Melting, freezing, radiation
- c) Condensation, melting, convection

3. **What is reflection?**

- a) When heat is transferred through empty space by electromagnetic waves
- b) It is when light energy bounces off a surface and changes direction
- c) When a liquid cools down and becomes a solid

4. **What is white light made up of?**

- a) It's made up of all the colours combined together
- b) It forms when light energy bounces off a surface and changes direction
- c) It forms when light changes medium

5. **What is the difference between heat and temperature?**

- a) There is no difference
- b) They are the same thing
- c) Heat is the transfer of thermal energy and temperature is the amount of thermal energy in an object.
- b) Temperature is thermal energy and heat is chemical energy.

6. **What kinds of changes can heat cause?**

- a) Convection, solidification, melting, chemical changes, reflection, evaporation
- b) Melting, evaporation, convection, expansion chemical changes, solidification
- c) Chemical changes, expansion and change of state.

7. **Think of these three objects and describe how they react to light using words from the box:**

opaque	transparent	translucent
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Glass is _____ and doesn't block light.

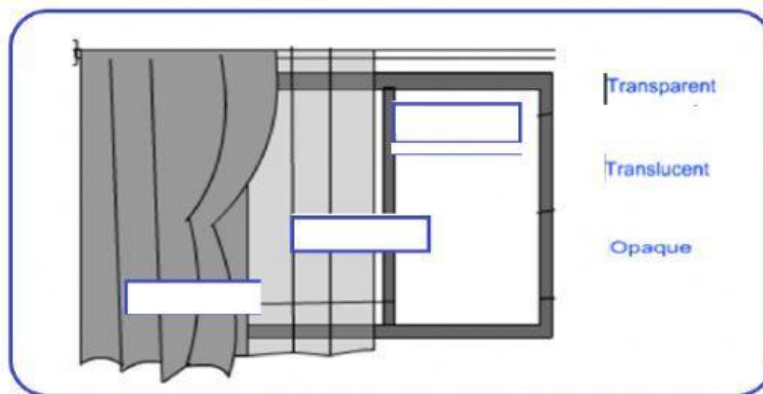
A chair is _____ and blocks light completely.

Curtains are _____, they block some light and some light passes through.

8. **Which of these materials is a good thermal conductor?**
a) Metal
b) Wood
9. **Which process can occur when you heat up a liquid?**
a) Melting
b) Evaporation
c) Condensation
10. **In which state are molecules moving more slowly and closer to one another?**
a) Solid
b) Liquid
c) Gas
11. **True or false? "Temperature is the transfer of thermal energy"**
a) True
b) False
12. **Materials that transfer thermal energy easily are called?**
a) Conductors
b) Insulators
13. **When two solid objects are in contact, heat is transferred from one object to another. This process is called?**
a) Conduction
b) Convection
c) Radiation
14. **What is thermal energy?**
a) A form of movement
b) A form of energy that is transmitted as heat
c) A form of energy that is transmitted as cold
15. **When a gas cools down it can change into a liquid. This process is called:**
a) Evaporation
b) Melting
c) Condensation

16. **When a liquid cools down it can change into a solid. This process is called:**
a) Solidification
b) Evaporation
c) Condensation
17. **When we cook food, the heat produced by the oven causes permanent changes in the food. We call this:**
a) Chemical change
b) Expansion
18. **Which one of these transfers thermal energy easily:**
a) Conductors
b) Insulators
c) Radiations
19. **In how many ways can heat travel from one object to another?**
a) 1
b) 2
c) 3
20. **What happens to the molecules in an object when the object is melting?**
a) They move slower and far away from each other
b) They move faster and far away from each other
c) They move slower and closer to each other
21. **Evaporation occurs when a gas cools down and turns into a liquid**
a) True
b) False
22. **What happens when butter gets hot?**
a) It evaporates
b) It melts
c) It freezes
23. **What happens when a solid is heated?**
a) It changes into a gas
b) It can expand or melt
c) Nothing happens

24. Label these pictures according to how the objects react to light



25. Match the pictures with the words

	<p>MELTING</p>
	<p>EXPANSION</p>
	<p>RADIATION</p>
	<p>CONVECTION</p>