

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
--------	-------------	-------------

Glass is _____ and doesn't block light.

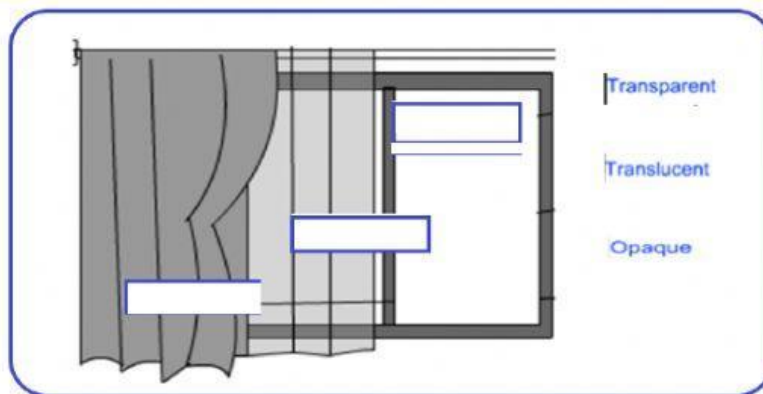
A chair is _____ and blocks light completely.

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

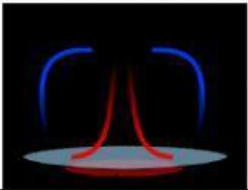
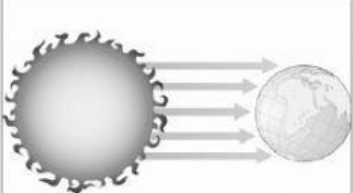
8. **Which of these materials is a good thermal conductor?**
a) Metal
b) Wood
9. **Which process can occur when you heat up a liquid?**
a) Melting
b) Evaporation
c) Condensation
10. **In which state are molecules moving more slowly and closer to one another?**
a) Solid
b) Liquid
c) Gas
11. **True or 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

	MELTING
	EXPANSION
	RADIATION
	CONVECTION