

## 5.2 Physical and Chemical Changes

Physical Changes pg. 121 - 122

1. What is the proper definition of a physical change?( 2 marks)

2. What are the 5 different changes of state of things such as ice?( 5 marks)

3. Fill in the each blanks with correct word: ( 3 marks)

In a physical change, the particles of a substance may \_\_\_\_\_ together or farther apart, or they may \_\_\_\_\_ with particles of other stances.

4a. Is mixing water with sugar a physical or chemical change?(1 mark)

4b. What would be an easy way to prove it's a physical or chemical change? Explain clearly.( 2 marks)

5. What are reversible changes and provide an example.( 2 marks)

6. What are non-reversible changes and provide an example.( 2 marks)

## Chemical Changes pg. 122 - 123

7. What is the proper definition of a chemical change?( 2 marks)

8. When wax is just melting what type of change is taking place...is it chemical or physical and why you think it's so?( 2 marks)

9. What is actually taking place when wax seems to be disappearing? Explain with detail.( 3 marks)

10. Explain what happens when a log is burning in detail.( 3 marks)

11. Explain what happens when an egg is frying in detail.(3 marks)

12. Fill in the each blank with the correct word: ( 4 marks)

Chemical changes always involve the \_\_\_\_\_ of \_\_\_\_\_ substances. Most chemical changes are \_\_\_\_\_ to \_\_\_\_\_.

13. The Importance of Chemical Changes...provide details.

- a. What do plants use energy from the Sun to actually do and what does it produce?( 4 marks)

- b. What happens when we eat plants and inhale oxygen from air?( 4 marks)

## Determining Whether a Change is Physical or Chemical pg. 123

14. What are 5 clues that a chemical change may have taken place?( 5 marks)

15. In the following experiments some conclusions were made. Are their conclusions valid? Explain your reasoning? Use the space provided.

- a) When we opened a can of cola, it fizzed. This showed that a chemical change has occurred.
- b) When Ethan's dad sawed through a piece of wood, smoke came up around the blade of the power saw. The sawdust was blackened around the edges of the blade. A chemical change had occurred, because the sawdust appeared different from the original wood.
- c) Heat and light were given off by a light bulb. A chemical change took place in the light bulb.
- d) When they mixed sugar and water, the sugar crystals disappear. A chemical change occurred.