

Name: _____ Block: _____

5.2 Physical and Chemical Changes, 5.4 Chemical Changes in the Environment

Physical Change:

- A material may change its shape, size (volume and mass), state (solid, liquid, gas) but _____
- Change is _____ most of the time
 - Examples:
 - paper....if you rip a piece of paper, it is still paper, even though you changed the shape and size
 - Clay.... Squish it into any shape, tear it into pieces...still clay
 - Water....it can be ice, liquid water, or steam/vapor...but it is all still water!

Chemical Change:

- One type of matter **changes** into one or more _____ types of matter.
- The matter produced has different identity and **different** _____.
- The change is _____.

Examples:

- _____ of paper into ash and smoke
- Iron rusting (reacting to air and water), turns red and crumbly
- Cooking food
- _____ food

Evidence of a Chemical Change:

- Temperature change
- new _____
- new texture
- new odour
- _____ formed
- bubbles, fizzing
- formation of precipitate (solids on the bottom or floating around)

Matter is never gone...it only changes

- Changes occur _____ in the environment.
- Matter may become part of the atmosphere, sit in a landfill, wash away in an ocean, or be buried underground.
- Matter is never completely gone. It can undergo chemical change, but it always remains.

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Chemical Changes in the Living Environment

- Forest fire: trees seem to disappear in minutes, but they have actually changed. Gas smoke and _____ actually help a forest begin anew.
- Growth of new trees: _____ chemical changes in living organisms.

Chemical Changes in a Non-Living Environment

- **Rusting:** When _____ mixes with water and _____ it forms a soft, flaky, red material.
- **Tarnishing:** When silver reacts with _____, the silver turns black.

Homework:

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**use the note AND the textbook to answer the questions