Card 1

Chapter 20 and 21

Question:

Every compound exists in an exact formula.
This formula cannot be altered.
(H_20 is water, not HO or HO_2 or H_3O).

Card 2

Chapter 20 and 21

Question:

A system that traps the experiment.
The products can't escape.

Card 3

Chapter 20 and 21

Question:

A system that allows the products of a
reaction to escape.

Card 4

Chapter 20 and 21

Question:

Mass is never created or destroyed,
just transformed.

Card 5

Chapter 20 and 21

Question:

Why do we have to
balance chemical reactions?

Card 6

Chapter 20 and 21

Question:

When chemicals combine together
and form new chemicals.

Card 7

Chapter 20 and 21

Question:

When a substance changes appearance,
but stays the same substance we call it a:

Card 8

Chapter 20 and 21

Question:

When a substance changes to a new
substance we call it a:

Card 2

Chapter 20 and 21

Answer:

closed system

Card 1

Chapter 20 and 21

Answer:

Principle of Definite Proportions

Card 4

Chapter 20 and 21

Answer:

Law of Conservation of Mass

Card 3

Chapter 20 and 21

Answer:

open system

Card 6

Chapter 20 and 21

Answer:

Chemical reaction

Card 5

Chapter 20 and 21

Answer:

To follow the "Law of Conservation of Mass" - the reactants have to weigh the same as the products, so there have to be the same number of atoms of each element on both sides.

Card 8

Chapter 20 and 21

Answer:

chemical change

Card 7

Chapter 20 and 21

Answer:

physical change

Card 9

Chapter 20 and 21

Question:

Melting, boiling, breaking, cutting, ripping, dissolving. These are examples of physical or chemical changes?

Card 10

Chapter 20 and 21

Question:

Bubbles, turning cloudy, a temperature change, color change, change in smell or taste. These are examples of physical or chemical changes?

Card 11

Chapter 20 and 21

Question:

Digestion: physical or chemical change?

Card 12

Chapter 20 and 21

Question:

The reactants are on which side of the reaction?

Card 13

Chapter 20 and 21

Question:

The products are on which side of the reaction?

Card 14

Chapter 20 and 21

Question:

$2H_2$ has how many hydrogens?

Card 15

Chapter 20 and 21

Question:

$3(NO_3)$ has how many atoms total?

Card 16

Chapter 20 and 21

Question:

The arrow in a chemical reaction says what?

Card 10

Chapter 20 and 21

Answer:

chemical changes - the substance/s are actually different

Card 9

Chapter 20 and 21

Answer:

physical changes - they do not change the substance just appearance.

Card 12

Chapter 20 and 21

Answer:

left side

Card 11

Chapter 20 and 21

Answer:

Both - chewing is physical;
the rest of digestion is chemical.

Card 14

Chapter 20 and 21

Answer:

4 (2X2)

Card 13

Chapter 20 and 21

Answer:

right side: the arrow points to the products

Card 16

Chapter 20 and 21

Answer:

Produces, yeilds, or makes

Card 15

Chapter 20 and 21

Answer:

3 nitrogens and 9 oxygens = 12 atoms total

Card 17

Chapter 20 and 21

Question:

Water boiling: physical or chemical change?

Card 18

Chapter 20 and 21

Question:

burning wood: physical or chemical change?

Card 19

Chapter 20 and 21

Question:

Classify the reaction: one reactant breaks up into two or more products.

Card 20

Chapter 20 and 21

Question:

Classify the reaction: two or more reactants combine to form one product.

Card 21

Chapter 20 and 21

Question:

Classify the reaction:
oxygen is a reactant and water is a product.

Card 22

Chapter 20 and 21

Question:

Classify the reaction:
a compound and element react to form a different compound and element.

Card 23

Chapter 20 and 21

Question:

Classify the reaction:
two compounds react to form two new compounds.

Card 24

Chapter 20 and 21

Question:

Where does the energy from a chemical reaction come from?

Card 18

Chapter 20 and 21

Answer:

chemical - the wood is now ash and smoke.

Card 17

Chapter 20 and 21

Answer:

physical - it is still water.

Card 20

Chapter 20 and 21

Answer:

addition reaction

Card 19

Chapter 20 and 21

Answer:

decomposition reaction

Card 22

Chapter 20 and 21

Answer:

single displacement reaction

Card 21

Chapter 20 and 21

Answer:

combustion reaction -
always produces heat as fire.

Card 24

Chapter 20 and 21

Answer:

From the breaking or
forming of chemical bonds.

Card 23

Chapter 20 and 21

Answer:

double displacement reaction.

Card 25

Chapter 20 and 21

Question:

A reaction that produces heat (gets hot):

Card 26

Chapter 20 and 21

Question:

A reaction that absorbs heat (gets cold):

Card 27

Chapter 20 and 21

Question:

The reactant that you run out of
first in a reaction.

Card 28

Chapter 20 and 21

Question:

A solid is formed from two liquids.
It "falls out":

Card 29

Chapter 20 and 21

Question:

When a bike rusts:
chemical or physical reaction?

Card 30

Chapter 20 and 21

Question:

When in a chemical reaction bubbles form,
what is really happening?

Card 31

Chapter 20 and 21

Question:

When two gases form a liquid:
endothermic or exothermic?

Card 32

Chapter 20 and 21

Question:

When a solid and a liquid or two liquids react
and form a gas: endothermic or exothermic?

Card 26

Chapter 20 and 21

Answer:

endothermic (heat enters)

Card 25

Chapter 20 and 21

Answer:

exothermic (heat exits)

Card 28

Chapter 20 and 21

Answer:

precipitate

Card 27

Chapter 20 and 21

Answer:

limiting reactant.

Card 30

Chapter 20 and 21

Answer:

A new gas is formed

Card 29

Chapter 20 and 21

Answer:

chemical reaction - rust is not a metal anymore: color change.

Card 32

Chapter 20 and 21

Answer:

endothermic -
it absorbs (requires) heat to change to a gas, so feels cold.

Card 31

Chapter 20 and 21

Answer:

exothermic -
it loses heat when it come down from gases to liquids.