

1. Physical change	F	A. When heat is produced in a chemical reaction.
2. Chemical reaction	C	B. The chemicals before the reaction.
3. Endothermic	D	C. When chemical bonds are broken and new substances are formed.
4. Exothermic	A	D. A chemical reaction that gets cold.
5. Reactants	B	E. The chemicals created in a reaction.
6. Products	E	F. Changes appearance only.

1. Precipitate	F	A. A safer way to smell chemicals.
2. Wafting	A	B. Tells you the number of molecules.
3. Ammonia	C	C. Will produce a poisonous gas when combined with Chlorine bleach.
4. Coefficient	B	D. Means "produces" or "creates".
5. Arrow	D	E. Tells the number of atoms of a particular element in a molecule.
6. Subscript	E	F. When a solid "falls out" of a liquid when a reaction occurs.

Evidence of a Chemical or Physical Change?

<u>C</u> Bubbles are formed.	<u>C</u> Changes temperature
<u>P</u> Melting wax	<u>P</u> Cutting up
<u>C</u> Gets cold	<u>P</u> Evaporating something
<u>C</u> Color changes	<u>P</u> Ripping paper
<u>P</u> Boiling water	<u>C</u> Gets hot
<u>C</u> Changes smell	<u>P</u> Sugar dissolves
<u>P</u> Breaking glass	<u>C</u> Burning gasoline

Evidence of a Chemical or Physical Change?

<u>P</u> Chewing food into smaller pieces.
<u>C</u> When acids in your stomach break down your food into nutrients your body can absorb.
<u>C</u> When enzymes in your saliva pre-digest and soften your food in your mouth before you swallow.
<u>P</u> Tearing food with your teeth.
<u>P+C</u> The complete act of digestion (all of the above).

What two sets of household chemical must you NEVER mix together? Be sure to give what they create.

Chlorine + Ammonia

Endothermic or Exothermic Reaction?

<u>X</u> An activated heat pack?
<u>X</u> Two chemicals are mixed and get hot?
<u>N</u> Two chemicals are mixed and get cold?
<u>N</u> Heat goes into the reaction?
<u>N</u> An activated cold pack?
<u>X</u> Heat comes out of a reaction?

Why are smelling or tasting chemicals dangerous?

The chemicals could be hazardous

If you HAD to smell a chemical, how would do it?

Waft

Is dissolving salt into water a physical or chemical change? (Be sure to give proof one way or the other.)

Physical Change
You can separate the salt + water

How many total molecules are there?

<u>4</u> 4H ₂ O	<u>3</u> 3Be ₂ Br	<u>5</u> 5CO ₂
<u>8</u> 8NaCl	<u>2</u> 2O ₂	<u>1</u> MgS

How many total atoms are there?

<u>12</u> 4H ₂ O	<u>9</u> 3Be ₂ Br	<u>15</u> 5CO ₂
<u>16</u> 8NaCl	<u>4</u> 2O ₂	<u>2</u> MgS

Li₂O + MgCl₂ → 2LiCl + MgO

Name the second reactant: Magnesium chloride

Name the first product: Lithium chloride

How many Lithiums on the product side? 2

2K₃N + 3CaCrO₄ → Ca₃N₂ + 3K₂CrO₄

Circle the second reactant. Underline the first product.

How many potassium atoms on the reactant side: 6

How many oxygen atoms on the product side? 4

2AlCl₃ + 3Na₂CO₃ → Al₂(CO₃)₃ + 6NaCl

Circle the first reactant. Underline the second reactant.

How many Sodium atoms on the reactant side? 6

How many table salt molecules on the product side? 6

Fe₂O₃ + 3C → 2Fe + 3CO

Circle and Name the second product: Carbon Monoxide

How many total atoms on the reactant side: 8

How many total molecules on the product side: 5