

# Chemical Reactions

• Evidence of a chemical reaction.

- (1) Bubbles - a gas formed
- (2) Permanent color/odor change
- (3) Precipitation - a solid forms
- (4) A change in energy - a temperature change
- (5) form water

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## Chemical Equations

reactants  $\rightarrow$  products

(s) - solid

(g) - gas

(l) - liquid

(aq) - aqueous solution

word equations - use names of substances

Ex) Solid <sup>R<sub>1</sub></sup> iron reacts with oxygen <sup>R<sub>2</sub></sup> gas to produce solid iron(III) oxide.<sup>?</sup>



Ex) Solutions of <sup>R<sub>1</sub></sup> strontium sulfide and <sup>R<sub>2</sub></sup> nickel(III) nitrate react to produce solid nickel(III) sulfide and aqueous strontium <sup>?</sup> nitrate.

