

1. For each of the following word equations, record the type of reaction on the line to the left of the equation. For synthesis use **S**, decomposition use **D**, single displacement use **SD**, and double displacement use **DD**.

D sodium chloride → sodium + chlorine

S iron + oxygen → iron oxide

DD sodium hydroxide + copper sulfate → copper hydroxide + sodium sulfate

SD calcium + silver nitrate → calcium nitrate + silver

SD sodium + magnesium iodide → magnesium + sodium iodide

S tin + fluorine → tin fluoride

D nickel sulfide → nickel + sulfur

DD sodium fluoride + aluminum chloride → sodium chloride + aluminum fluoride

2. Complete the following word equations by filling in the blanks. The blanks may be completed by either element names or compound names.

aluminum + chlorine → aluminum chloride

magnesium + sulfur → magnesium sulfide

copper + oxygen → copper oxide

silver chloride → silver + chlorine

copper + mercury chloride → copper chloride + mercury

potassium + sodium chloride → potassium chloride + sodium

sodium + lead oxide → sodium oxide + lead

iron + copper nitrate → copper + iron nitrate

sodium oxide + hydrogen chloride → sodium chloride + water

potassium oxide + hydrogen bromide → potassium bromide + water

SD
SD
SD
SD
DD
DD



barium chloride + sodium sulfate  $\rightarrow$  barium sulfate + sodium chloride

carbon + oxygen  $\rightarrow$  carbon dioxide

magnesium + oxygen  $\rightarrow$  magnesium oxide

sulfur trioxide  $\rightarrow$  sulfur + oxygen

magnesium + hydrogen chloride  $\rightarrow$  magnesium chloride + Hydrogen

sodium + nitrogen  $\rightarrow$  sodium nitride

water  $\rightarrow$  hydrogen + oxygen

silver nitrate + copper  $\rightarrow$  silver + copper nitrate

sodium hydroxide + barium chloride  $\rightarrow$  sodium chloride + barium hydroxide

iron chloride + silver  $\rightarrow$  silver chloride + iron

iron + oxygen  $\rightarrow$  iron oxide