**SKELETON EQUATIONS**

**Skeleton equations** are equations that are unbalanced meaning they do not have to have an equal amount of each element on both sides of the equation.

Reminder: Any diatomic element found by itself must have a subscript of 2!

**Example:** A small amount of sodium is reacted with chlorine gas to produce sodium chloride.

Word Equation: Sodium + chlorine → sodium chloride

Skeleton Equation: Na + Cl → NaCl

Balanced Equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Part 1: For each of the word problems below, write out the word equation and the skeleton equation.

1. Hydrogen gas is reacted with bromine gas to produce hydrogen bromide.

Word Equation:

Skeleton Equation:

Balanced Equation:

1. Carbon monoxide gas is placed in a container to react with oxygen gas. In this reaction carbon dioxide gas is produced.

Word Equation:

Skeleton Equation:

Balanced Equation:

1. Solid potassium chlorate reacts to produce solid potassium chloride and oxygen gas.

Word Equation:

Skeleton Equation:

Balanced equation:

**Part 2:** Convert the following word equations to skeleton equations.

1. Iron + sulphur → Iron (II) sulphide

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1. Hydrogen gas + chlorine gas → hydrogen chloride

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1. Magnesium + oxygen gas → magnesium oxide

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1. Aluminum oxide → aluminum + oxygen gas

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1. Hydrogen gas + oxygen gas → water

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1. Hydrochloric acid + sodium hydroxide → sodium chloride + water

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1. Methane gas + oxygen gas → carbon dioxide + water

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1. Potassium hydroxide + hydrogen bromide → potassium bromide + water

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1. Carbon + oxygen gas → carbon dioxide

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1. Tin (II) oxide + hydrogen gas → tin + water

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