Name:	Date :
WRITING AND BAR Equation	
Write the formulas of the reactants and product 1. Nitric oxide reacts with ozone to produce nitrogen	
2. Iron burns in air to form a black solid Fe ₃ O ₄ .	
3. Sodium metal reacts with chlorine gas to form s	sodium chloride.
4. Acetylene burns in air to form carbon dioxide a	nd water.
5. Hydrogen peroxide easily decomposes into wa	ter and oxygen gas.
6. Hydrazine and hydrogen peroxide are used tog nitrogen gas and water.	ether as rocket fuel. The products are
7. If strongly heated, potassium chlorate decompo	oses to yield oxygen gas and
 Aqueous sodium hydroxide and gaseous carbo carbonate sand and liquid water. 	n dioxide yield a solution of sodium

WRITING AND BALANCING — Equations —

Answers

1. Nitric oxide reacts with ozone to produce nitrogen dioxide and oxygen gas.

$$NO + O_3 \rightarrow NO_2 + O_2$$

2. Iron burns in air to form a black solid Fe₃O₄.

$$3 \text{ Fe} + 2 \text{ O}_2 \rightarrow \text{Fe}_3 \text{O}_4$$

3. Sodium metal reacts with chlorine gas to form sodium chloride.

$$2 \text{ Na} + \text{Cl}_2 \rightarrow 2 \text{ NaCl}$$

4. Acetylene burns in air to form carbon dioxide and water.

$$2 C_{2}H_{2} + 5 O_{2} \rightarrow 4 CO_{2} + 2 H_{2}O$$

5. Hydrogen peroxide easily decomposes into water and oxygen gas.

$$2 H_2O_2 \rightarrow 2 H_2O + O_2$$

6. Hydrazine and hydrogen peroxide are used together as rocket fuel. The products are nitrogen gas and water.

$$N_{2}H_{4} + 2 H_{2}O_{2} \rightarrow N_{2} + 4 H_{2}O$$

7. If strongly heated, potassium chlorate decomposes to yield oxygen gas and potassium chloride.

$$2 \text{ KCIO}_3 \rightarrow 3 \text{ O}_2 + 2 \text{ KCI}$$

8. Aqueous sodium hydroxide and gaseous carbon dioxide yield a solution of sodium carbonate sand and liquid water.

$$2 \text{ NaOH} + \text{CO}_2 \rightarrow \text{Na}_2\text{CO}_3 + \text{H}_2\text{O}$$