Complete Chemical Word Equations				
Write and balance the complete chemical equation to describe the following chemical process.				
1)	When sugar $(C_6H_{12}O_6)$ is burnt in the presence of oxygen, the products are carbon dioxide and water vapor.			
2)	When solid lithium hydroxide is added to a sulfuric acid solution, lithium sulfate and water are formed.			
3)	Ammonia burns in the air to form nitrogen dioxide and water.			
4)	Carbon disulfide burns in the air to form carbon dioxide and sulfur dioxide.			
5)	Oxygen gas reacts with solid copper metal to form copper (II) oxide solid.			
6)	Hydrogen sulfide gas is bubbled through a sodium hydroxide solution to produce sodium sulfide solution and liquid water.			
7)	Solid iron (III) oxide and carbon monoxide gas produce solid iron and carbon dioxide gas.			
8)	Solid aluminum metal reacts with aqueous zinc chloride to produce solid zinc metal and aqueous aluminum chloride.			

Date:

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Answers

1) When sugar $(C_6H_{12}O_6)$ is burnt in the presence of oxygen, the products are carbon dioxide and water vapor.

$$C_6H_{12}O_6(s) + 6 O_2(g) \rightarrow 6 CO_2(g) + 6 H_2O$$

2) When solid lithium hydroxide is added to a sulfuric acid solution, lithium sulfate and water are formed.

2 LiOH (s) +
$$H_2SO_4$$
 (aq.) \rightarrow Li₂SO₄ (aq.) + 2 H_2O (l)

3) Ammonia burns in the air to form nitrogen dioxide and water.

$$4 \text{ NH}_3 (g) + 7 \text{ O}_2 (g) \rightarrow 4 \text{ NO}_2 (g) + 6 \text{ H}_2 \text{O}$$

4) Carbon disulfide burns in the air to form carbon dioxide and sulfur dioxide.

$$CS_{2}(s) + 3 O_{2}(g) \rightarrow 2 SO_{2}(g) + CO_{2}(g)$$

5) Oxygen gas reacts with solid copper metal to form copper (II) oxide solid.

$$2 \text{ Cu (s)} + O_2 \text{ (g)} \rightarrow 2 \text{ CuO (s)}$$

6) Hydrogen sulfide gas is bubbled through a sodium hydroxide solution to produce sodium sulfide solution and liquid water.

$$H_2S(g) + 2 \text{ NaOH (aq.)} \rightarrow \text{Na}_2S(aq.) + 2 H_2O(l)$$

7) Solid iron (III) oxide and carbon monoxide gas produce solid iron and carbon dioxide gas.

$$Fe_2O_3(s) + 3 CO(g) \rightarrow 2 Fe(s) + 3 CO_2(g)$$

8) Solid aluminum metal reacts with aqueous zinc chloride to produce solid zinc metal and aqueous aluminum chloride.

2 Al (s) + 3 ZnCl₂ (aq.)
$$\rightarrow$$
 3 Zn (s) + 2 AlCl₃ (aq.)