**Worksheet: Word Equations Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Substitute symbols and formulas for words, then balance each equation.

1. sodium chloride + lead (II) nitrate 🡪 lead (II) chloride + sodium nitrate

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2. iron + chlorine 🡪 iron (III) chloride

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3. barium + water 🡪 barium hydroxide + hydrogen

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4. When chlorine gas reacts with methane; carbon tetrachloride and hydrogen chloride are produced.

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5. When sodium oxide is added to water, sodium hydroxide is produced.

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6. In a blast furnace, iron (III) oxide and carbon monoxide gas produce carbon dioxide gas and iron.

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7. When dissolved beryllium chloride reacts with dissolved silver nitrate in water, aqueous beryllium nitrate and silver chloride powder are made.

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8. When isopropanol (C3H8O) burns in oxygen, carbon dioxide, water, and heat are produced.

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9. When dissolved sodium hydroxide reacts with sulfuric acid (H2SO­4), aqueous sodium sulfate, water, and heat are formed.

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10. When fluorine gas is put into contact with calcium metal at high temperatures, calcium fluoride powder is created in an exothermic reaction.

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11. When sodium metal reacts with iron (II) chloride, iron metal and sodium chloride are formed.

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12. Iodine crystals react with chlorine gas to produce iodine trichloride.

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13. Aqueous sodium chloride reacts with aqueous lead (II) nitrate to yield a lead (II) chloride precipitate and aqueous sodium nitrate

14. Aqueous barium nitrate reacts with sulfuric acid [H2SO4(aq)] to yield a barium sulfate precipitate and nitric acid [HNO3(aq)]

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15. Silver nitrate reacts in with potassium chromate to yield a silver chromate precipitate and soluble potassium nitrate

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16. Solid calcium carbonate reacts with hydrochloric acid [HCl(aq)] to yield aqueous calcium chloride, carbon dioxide gas, and liquid water

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17. Aqueous zinc chloride reacts with dihydrogen monosulfide gas to yield a zinc sulfide precipitate and hydrochloric acid

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18. Magnesium nitrate reacts in solution with potassium hydroxide to yield a magnesium hydroxide precipitate and soluble potassium nitrate

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19. Solid aluminum hydroxide reacts with nitric acid (HNO3) to yield soluble aluminum nitrate and liquid water

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20. Zinc metal reacts lead(II) nitrate to yield zinc nitrate and lead metal.

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21. Aluminum bromide and chlorine gas yields aluminum chloride and liquid bromine

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22. Sodium phosphate and calcium chloride yields calcium phosphate and sodium chloride

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23. Aqueous lead (IV) nitrate reacts with aqueous sodium sulfate to yield a lead (IV) sulfate precipitate and soluble sodium nitrate

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24. Potassium chlorate when heated yields potassium chloride and oxygen gas

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25. Aluminum metal and hydrochloric acid forms aluminum chloride and hydrogen gas.

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26. Calcium hydroxide and phosphoric acid react to form calcium phosphate and water.

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27. Copper metal and sulfuric acid yields copper(I) sulfate and water and sulfur dioxide

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27. Hydrogen gas and nitrogen monoxide react to form gaseous water and nitrogen gas

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28. Sodium phosphate reacts with lead(II) acetate to produce lead(II) phosphate and sodium acetate.

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29. Aqueous sodium hydroxide reacts with carbon dioxide gas to yield soluble sodium carbonate and liquid water

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30. Solid magnesium oxide reacts with hydrochloric acid to yield a solution of magnesium chloride and liquid water

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31. Solid zinc metal reacts with sulfuric acid to yield aqueous zinc sulfate and hydrogen gas