



## BALANCE THE GIVEN CHEMICAL EQUATIONS

### Worksheet - 54

1. \_\_\_\_ Pb + 2 H<sub>2</sub>O + O<sub>2</sub> = \_\_\_\_ Pb(OH)<sub>2</sub>
2. \_\_\_\_ Cu + S<sub>8</sub> = \_\_\_\_ Cu<sub>2</sub>S
3. 12 FeCl<sub>2</sub> + \_\_\_\_ H<sub>2</sub>O + O<sub>2</sub> = \_\_\_\_ FeCl<sub>3</sub> + 4 Fe(OH)<sub>3</sub>
4. 4 HCl + \_\_\_\_ As<sub>2</sub>O<sub>3</sub> + 4 NaNO<sub>3</sub> + 7 H<sub>2</sub>O = \_\_\_\_ NO + 6 H<sub>3</sub>AsO<sub>4</sub> + 4 NaCl
5. \_\_\_\_ Si<sub>2</sub>H<sub>3</sub> + 11 O<sub>2</sub> = \_\_\_\_ SiO<sub>2</sub> + 6 H<sub>2</sub>O
6. \_\_\_\_ Mg + O<sub>2</sub>(g) = \_\_\_\_ MgO(s)
7. 2 C<sub>6</sub>H<sub>14</sub> + \_\_\_\_ O<sub>2</sub> = 12 CO<sub>2</sub> + \_\_\_\_ H<sub>2</sub>O
8. Pb(NO<sub>3</sub>)<sub>2</sub> + \_\_\_\_ Na<sub>2</sub>SO<sub>4</sub> = Pb(SO<sub>4</sub>)<sub>2</sub> + \_\_\_\_ NaNO<sub>3</sub>
9. \_\_\_\_ C(g) + O<sub>2</sub>(g) = \_\_\_\_ CO(g)
10. Fe<sub>2</sub>O<sub>3</sub> + \_\_\_\_ CO = 2 Fe + \_\_\_\_ CO<sub>2</sub>
11. \_\_\_\_ NO<sub>3</sub> + 3 H<sub>2</sub>O = \_\_\_\_ NH<sub>3</sub> + 3 O<sub>2</sub>
12. 10 S + \_\_\_\_ HNO<sub>3</sub> = 10 H<sub>2</sub>SO<sub>4</sub> + \_\_\_\_ NO<sub>2</sub> + H<sub>2</sub>O
13. \_\_\_\_ NH<sub>4</sub>ClO<sub>4</sub> = N<sub>2</sub> + Cl<sub>2</sub> + \_\_\_\_ O<sub>2</sub> + 4 H<sub>2</sub>O
14. 2 ClO<sub>2</sub> + \_\_\_\_ H<sub>2</sub> = \_\_\_\_ HCl + 4 H<sub>2</sub>O
15. 4 NO<sub>2</sub> + \_\_\_\_ H<sub>2</sub>O = 4 NH<sub>3</sub> + \_\_\_\_ O<sub>2</sub>
16. \_\_\_\_ C<sub>2</sub>H<sub>5</sub>NH<sub>2</sub>(g) + 15 O<sub>2</sub>(g) = \_\_\_\_ CO<sub>2</sub>(g) + 14 H<sub>2</sub>O(g) + 2 N<sub>2</sub>(g)
17. \_\_\_\_ C<sub>3</sub>H<sub>5</sub>N<sub>3</sub>O<sub>9</sub> = \_\_\_\_ CO<sub>2</sub> + 10 H<sub>2</sub>O + 6 N<sub>2</sub> + O<sub>2</sub>
18. \_\_\_\_ SO<sub>2</sub> + O<sub>2</sub> = \_\_\_\_ SO<sub>3</sub>
19. Na<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub> + \_\_\_\_ FeCl<sub>2</sub> + 14 HCl = 2 CrCl<sub>3</sub> + \_\_\_\_ FeCl<sub>3</sub> + 2 NaCl + 7 H<sub>2</sub>O
20. \_\_\_\_ NH<sub>3</sub> + 5 O<sub>2</sub> = 4 NO + \_\_\_\_ H<sub>2</sub>O



# ANSWERS

1.  $2 \text{Pb} + 2 \text{H}_2\text{O} + \text{O}_2 = 2 \text{Pb}(\text{OH})_2$
2.  $16 \text{Cu} + \text{S}_8 = 8 \text{Cu}_2\text{S}$
3.  $12 \text{FeCl}_2 + 2 \text{H}_2\text{O} + \text{O}_2 = 8 \text{FeCl}_3 + 4 \text{Fe}(\text{OH})_3$
4.  $4 \text{HCl} + 3 \text{As}_2\text{O}_3 + 4 \text{NaNO}_3 + 7 \text{H}_2\text{O} = 4 \text{NO} + 6 \text{H}_3\text{AsO}_4 + 4 \text{NaCl}$
5.  $4 \text{Si}_2\text{H}_3 + 11 \text{O}_2 = 8 \text{SiO}_2 + 6 \text{H}_2\text{O}$
6.  $2 \text{Mg} + \text{O}_2(\text{g}) = 2 \text{MgO}(\text{s})$
7.  $2 \text{C}_6\text{H}_{14} + 19 \text{O}_2 = 12 \text{CO}_2 + 14 \text{H}_2\text{O}$
8.  $\text{Pb}(\text{NO}_3)_2 + 2 \text{NaSO}_4 = \text{Pb}(\text{SO}_4)_2 + 2 \text{NaNO}_3$
9.  $2 \text{C}(\text{g}) + \text{O}_2(\text{g}) = 2 \text{CO}(\text{g})$
10.  $\text{Fe}_2\text{O}_3 + 3 \text{CO} = 2 \text{Fe} + 3 \text{CO}_2$
11.  $10 \text{NO}_3 + 3 \text{H}_2\text{O} = 10 \text{NH}_3 + 3 \text{O}_2$
12.  $10 \text{S} + 40 \text{HNO}_3 = 10 \text{H}_2\text{SO}_4 + 40 \text{NO}_2 + 2 \text{H}_2\text{O}$
13.  $2 \text{NH}_4\text{ClO}_4 = \text{N}_2 + \text{Cl}_2 + 2 \text{O}_2 + 4 \text{H}_2\text{O}$
14.  $2 \text{ClO}_2 + 5 \text{H}_2 = 2 \text{HCl} + 4 \text{H}_2\text{O}$
15.  $4 \text{NO}_2 + 6 \text{H}_2\text{O} = 4 \text{NH}_3 + 7 \text{O}_2$
16.  $4 \text{C}_2\text{H}_5\text{NH}_2(\text{g}) + 15 \text{O}_2(\text{g}) = 8 \text{CO}_2(\text{g}) + 14 \text{H}_2\text{O}(\text{g}) + 2 \text{N}_2(\text{g})$
17.  $4 \text{C}_3\text{H}_5\text{N}_3\text{O}_9 = 12 \text{CO}_2 + 10 \text{H}_2\text{O} + 6 \text{N}_2 + \text{O}_2$
18.  $2 \text{SO}_2 + \text{O}_2 = 2 \text{SO}_3$
19.  $\text{Na}_2\text{Cr}_2\text{O}_7 + 6 \text{FeCl}_2 + 14 \text{HCl} = 2 \text{CrCl}_3 + 6 \text{FeCl}_3 + 2 \text{NaCl} + 7 \text{H}_2\text{O}$
20.  $4 \text{NH}_3 + 5 \text{O}_2 = 4 \text{NO} + 6 \text{H}_2\text{O}$



Thanks for downloading our free printable.

We have thousands of such resources in our blog for teachers and parents.

**You can download them for free here!**

### **Free Printables from Go Science Girls – Fair Usage Policy**

#### **You can ...**

- Download and save this free printable from [gosciencegirls.com](http://gosciencegirls.com) to your computer.
- Print this file and use it as many times as you want in your home, classrooms or for your library.
- Feel free to link our blog post where your visitors can find and download this printable for free.
- When you post online about this resource – please give due credit to [gosciencegirls.com](http://gosciencegirls.com)

#### **You Cannot ...**

- Access this file or download it from other sites apart from [gosciencegirls.com](http://gosciencegirls.com)
- Other websites cannot link to this pdf directly. If required, they are welcomed to link to the blog post from where this pdf can be downloaded.
- The ownership of this pdf rests with GoScienceGirls. No one can claim ownership for this file.
- You are not allowed to sell printed copies of this file to others.
- You are not allowed to store this file electronically and redistribute it (only personal use is allowed).

### **Further Questions?**

Feel free to email us at [contactgosciencegirls@gmail.com](mailto:contactgosciencegirls@gmail.com) for any further questions and suggestions. We would love to hear from you. We promise to respond back as soon as we can.