



OBJECTIVE 8:

Identify patterns in synthesis, decomposition, displacement reactions and the reactions of acids

SUCCESS CRITERIA 3:

I can **apply** the Law of Conservation of Mass to balance unfamiliar chemical equations

Write numbers in the boxes to balance the equations below.

1. H₂ + O₂ → H₂O
2. Cu + O₂ → CuO
3. Na₃PO₄ + HCl → NaCl + H₃PO₄
4. Fe + Cl₂ → FeCl₂
5. AgI + Na₂S → Ag₂S + NaI
6. Al + HCl → AlCl₃ + H₂
7. SiO₂ + HF → SiF₄ + H₂O
8. SnO₂ + H₂ → Sn + H₂O
9. Al + O₂ → Al₂O₃
10. Fe + O₂ → Fe₂O₃
11. P₄ + O₂ → P₂O₅
12. N₂ + H₂ → NH₃
13. CH₄ + H₂O → H₂ + CO
14. CO + H₂ → C₈H₁₈ + H₂O
15. Mg(OH)₂ + HCl → MgCl₂ + H₂O
16. C₄H₁₀O + O₂ → CO₂ + H₂O
17. Ca₃(PO₄)₂ + H₂SO₄ → CaSO₄ + Ca(H₂PO₄)₂
18. Hg(OH)₂ + H₃PO₄ → Hg₃(PO₄)₂ + H₂O
19. Na₃PO₄ + CaCl₂ → Ca₃(PO₄)₂ + NaCl
20. (NH₄)₃PO₄ + Pb(NO₃)₄ → Pb₃(PO₄)₄ + NH₄NO₃