Science 1.8 AS 90947 Investigate selected chemical reactions

Changing general word equations into balanced symbol equations

Success Criteria: complete each level before moving onto the next

- Basic: write **word equations** for the following reactions
- Proficient: write **symbol equations** for the following reactions
- Advanced: **balance the symbol equations** for the following reactions

Precipitate Reactions:

cation(1) anion(1) + cation(2) anion(2) → cation(2) anion(1) + cation(1) anion(2)

1. silver nitrate is mixed with sodium chloride to produce sodium nitrate and silver chloride.

Word equation _____

Symbol equation _____

Decomposition Reactions:

metal carbonate → metal oxide + carbon dioxide

2. sodium carbonate powder is heated to produce sodium oxide and carbon dioxide gas

Word equation _____

Symbol equation _____

Combination Reactions:

element(1) + element(2) → element(1) element(2) [compound]

3. iron metal is heated with sulfur to produce iron sulfide

Word equation _____

Symbol equation _____

Displacement Reactions:

metal(1) + metal(2) anion → metal(2) + metal(1) anion

4. zinc metal is added to copper nitrate solution to produce copper and zinc nitrate

Word equation _____

Symbol equation _____