**Is This Reaction a Redox Reaction?**

**The Task:**

* Looking at the 10 reactions below, determine if they are redox reactions.
* Create a mini CER poster for at least 2 of the equations – use the model below to help you.
* This is practice for your benefit and will not be collected.

|  |  |  |  |
| --- | --- | --- | --- |
| CO2 | C | O |  |
| Sub | 1 | 1 |
| Ox # | +4 | -2 |
| Total | +4 | -4 | 0 |

**Question:** Is Fe2O3 + 3CO 🡪 2Fe + 3CO2 an example of a redox reaction?

**Claim:** Yes, we belive the reaction **IS** an example of a redox reaction

**Evidence:**

|  |  |  |  |
| --- | --- | --- | --- |
| Fe2O3 | Fe | O |  |
| Sub | 2 | 3 |
| Ox # | +3 | -2 |
| Total | +6 | -6 | 0 |

|  |  |  |  |
| --- | --- | --- | --- |
| CO | C | O |  |
| Sub | 1 | 1 |
| Ox # | +2 | -2 |
| Total | +2 | -2 | 0 |

Fe has an oxidation number of 0 because it is all by it self

**Reasoning:** Yes, we belive the reaction **IS** an example of a redox reaction **BECAUSE** Fe is gaining electrons (+3 🡪 0) so it is being reduced, and C is loosing electrons (+2 🡪 +4) so it is being oxidized)

**Name:** Your chemistry teacher

**The Reactions:** Circle the correct choice

**Model:** Fe2O3 + 3CO 🡪 2Fe + 3CO2 Is a REDOX reaction Is NOT a REDOX reaction

1. HCl + NaOH 🡪 NaCl + H2O Is a REDOX reaction Is NOT a REDOX reaction
2. CH4 + 2O2 🡪 CO2 + 2H2O Is a REDOX reaction Is NOT a REDOX reaction
3. AgNO3 + KCl 🡪AgCl + KNO3 Is a REDOX reaction Is NOT a REDOX reaction
4. NaCl + H2SO4 🡪 Na2SO4 + HCl Is a REDOX reaction Is NOT a REDOX reaction
5. Mg + 2HCl 🡪 MgCl2 + H2 Is a REDOX reaction Is NOT a REDOX reaction
6. BaCl2 + K2SO4 🡪 2KCl + BaSO4 Is a REDOX reaction Is NOT a REDOX reaction
7. Cu + 2 AgNO3 🡪 Cu(NO3)2 + 2Ag Is a REDOX reaction Is NOT a REDOX reaction
8. HCl + CaCO3 🡪 CaCl2 + H2O + CO2 Is a REDOX reaction Is NOT a REDOX reaction
9. Zn + CuSO4 🡪 ZnSO4 + Cu Is a REDOX reaction Is NOT a REDOX reaction
10. Fe + CuSO4 🡪 FeSO4 + Cu Is a REDOX reaction Is NOT a REDOX reaction