

Key points to learn

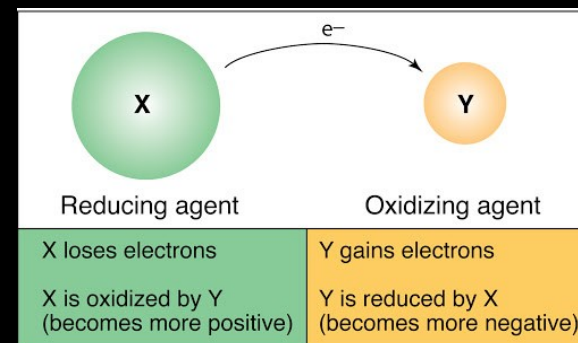
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| 1. Oxidation & reduction | <p>Oxidation</p> <p>Is</p> <p>Lost of electrons</p> <p>Reduction</p> <p>Is</p> <p>Gain of electrons</p> |
| 2. Rules for oxidation state | <p>-Work out the oxidation state of the know elements</p> <p>-Work out the oxidation state of the unknow elements.</p> |
| 3. The know oxidation state | <p>H= +1</p> <p>O= -1</p> |
| 4. Redox | <p>Oxidation and reduction reactions are reactions in which one species is reduced and another is oxidized at the same time.</p> <p>Both side should be cancelling</p> |
| 5. Disproportionation reaction | <p>When one species in a reaction undergoes both oxidation and reduction.</p> |

Key points to learn

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| 6. Working out redox reaction | $2\text{Fe}_2\text{O}_3 (\text{s}) + 3\text{C} (\text{s}) \rightarrow 4\text{Fe} (\text{s})$ <p>Look for know element oxidation. Single element have state 0. Then look for unknow element oxidation state. See if the element have been oxidised or reduced.</p> |
| 7. Oxidation & reduction term of oxygen transfer | <p>Oxidation is gain of oxygen</p> <p>Reduction is lost of oxygen</p> |
| 8. Oxidising agent | <p>Gain of electrons/themselves reduces</p> |
| 9. Reducing agent | <p>Lost of electrons/ themselves oxidised</p> |
| 10. Step to balance simple redox reaction | <p>Check both side has equal charges.</p> <p>Balance the number of electrons.</p> <p>Deduce if the reaction is oxidised or reduced</p> |
| 11. Harder redox half equation | <p>1.Balance the number of atoms on each side. 2.number of oxygen by adding H₂O. 3.no. of hydrogen by adding H⁺.</p> <p>4.charges on each side of the equation by adding electrons.</p> |

Elements of the Sea

Knowledge organiser



Background information

Did you know: Glass is actually a liquid, it just flows very, very slowly

Additional information

Oscar **A**te **G**reen **O**ranges = **O**xidising **A**gents **G**ive **O**xxygen

Ruby **A**te **R**ed **O**ranges = **R**educing **A**gainst **R**emove **O**xxygen