

OXIDATION AND REDUCTION

OXIDATION

- gain oxygen
- lose hydrogen
- lose electrons
- increased oxidation state after reaction

REDUCTION

- lose oxygen
- gain hydrogen
- gain electrons
- decreased oxidation state after reaction

OXIDATION STATE

- given by the charge

OXIDISING AND REDUCING AGENTS

oxidising agents

- potassium manganate (VII) $\text{KMnO}_4 \rightarrow$ purple to colourless
- potassium dichromate (VI) $\text{K}_2\text{Cr}_2\text{O}_7 \rightarrow$ orange to green

reducing agents

- potassium iodide $\text{KI} \rightarrow$ colourless to brown