

# Definitions and Concepts for Edexcel Chemistry A-level

## Topic 10: Equilibrium 1

### Features of a dynamic equilibrium:

- Reversible reaction in a closed system.
- Forward and backward reactions occur simultaneously.
- Rate of forward reaction = Rate of backward reaction.
- There is **no net change** in concentrations of reactants and products (see above).

**Homogeneous system:** A system, where all the chemicals are in the same phase.

**Heterogeneous system:** A system, where not all the chemicals are in the same phase.

**Le Chatelier's Principle:** If there's a small change in concentration, pressure/volume or temperature (disruption to equilibrium) to a closed system in dynamic equilibrium, the equilibrium will shift to minimise the change (to restore the equilibrium).

**Contact process:** A method of production of  $\text{H}_2\text{SO}_4$ . The key step involves the conversion of  $\text{SO}_2$  to  $\text{SO}_3$  in presence of oxygen, catalysed by  $\text{V}_2\text{O}_5$ . An example of heterogeneous catalysis.

