AQA GCSE Chemistry

Topic 3: Quantitative chemistry

Use of amount of substance in relation to volumes of gases (chemistry only)

Notes

(Content in bold is for Higher Tier only)

- **Equal amounts (in mol.) of gases occupy the same volume under the same conditions of temperature and pressure (e.g. RTP)**
- **Volume of 1 mol. of any gas at RTP (room temperature and pressure: 20 degrees C and 1 atmosphere pressure) is 24 dm^3**
- **This sets up the equation:**

Volume of gas (dm^3) at RTP = Moles x 24

- **using this equation, if the reaction is at RTP, you can calculate moles of a gas produced and then x24 to get volume produced (e.g. if you produce 5 moles of hydrogen, you produce 24 x 5 = 120 dm^3)**