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| **Subject** | **Year 9 Chemistry Threshold Concepts – Spring Term** | **How to support students’ learning** |
| Reactions of acids | ***Reactions of acids with metals (HT only)***  *•* ***Explain in terms of gain or loss of electrons, that these are redox reactions • Identify which species are oxidised and which are reduced in given chemical equations***  **Neutralisation of acids and salt production**  • Predict products from given reactants • Use the formulae of common ions to deduce the formulae of salts  **Soluble salts**  • Describe how to make pure, dry samples of named soluble salts from information provided  **The pH scale and neutralisation**  • Describe the use of universal indicator or a wide range indicator to measure the approximate pH of a solution • Use the pH scale to identify acidic or alkaline solutions  ***Strong and weak acids (HT only)***  *•* ***Use and explain the terms dilute and concentrated (in terms of amount of substance), and weak and strong (in terms of the degree of ionisation) in relation to acids • Describe neutrality and relative acidity in terms of the effect on hydrogen ion concentration and the numerical value of pH (whole numbers only)*** | Encourage your child to watch this video on redox reactions [GCSE Chemistry - Oxidation and Reduction - Redox Reactions #39 (Higher Tier) - YouTube](https://www.youtube.com/watch?v=jyvcVjrZnJA)  Encourage your child to visit this website to learn about acids, bases, salts and neutralisation reactions [Neutralisation | S-cool, the revision website](https://s-cool.co.uk/gcse/chemistry/acids-and-alkalis/revise-it/neutralisation)  Encourage your child to watch this video on strong and weak acids [GCSE Chemistry - The pH Scale & Strong vs Weak Acids (Higher Tier) #35 - YouTube](https://www.youtube.com/watch?v=_gYBbzkqrmE) |