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| **Subject** | **Year 8 Chemistry Threshold Concepts – Spring Term** | **How to support students’ learning** |
| Reactions of metals | **Acids and metals**   * State that metals react with acids to form salts and hydrogen gas * Recall indicators of a chemical reaction * Represent reactions using word and balanced symbol equations * Use patterns in reactions to make predictions about other reactions * Carry out and recall the test for hydrogen gas   **Acids and metal oxides**   * State that acids react with metal oxides to produce a salt and water * Recall indicators of a chemical reaction * Represent reactions using word and balanced symbol equations   **Making salts**   * State that when an acid is added to an alkali, neutralisation takes place, and a salt and water is produced * Describe how to obtain a neutral solution from an acid and an alkali * Represent reactions using word and balanced symbol equations   **Acids and metal carbonates**   * State that acids react with metal carbonates to produce a salt, carbon dioxide and water * Recall indicators of a chemical reaction * Carry out and recall the test for carbon dioxide gas * Represent reactions using word and balanced symbol equations   **Making and naming salts**   * Represent reactions using word and balanced symbol equations * Recall the rules for naming salts * Plan a method to prepare a solid sample of a names salt   **The reactivity series**   * Using observations, identify an order of reactivity of metals * Use the reactivity series to make s sensible prediction about a reaction * Write word and balanced symbol equations   **Metal ores and mining**   * Link the reactivity of a metal to its use * Define an ore * Give an example of a native metal * Suggest a method of extraction for a metal using the reactivity series * Write word and symbol equations for reactions   **Displacement reactions**   * Use the reactivity series to predict whether a reaction will happen or not * Recall indicators of a chemical reaction * Write word and symbol equations for reactions | Encourage your child to read this information about metals reacting with acids [What is an acid and metal reaction? - BBC Bitesize](https://www.bbc.co.uk/bitesize/topics/zn6hvcw/articles/zvfxxbk)    Encourage your child to watch this video about making and naming salts [Making Salts - YouTube](https://www.youtube.com/watch?v=mKnLhMYu1K4)  Encourage your child to watch this video about the reactivity series [Reactivity Series of Metals | Environmental | Chemistry | FuseSchool - YouTube](https://www.youtube.com/watch?v=TGPPPFczOj0)  Encourage your child to read this page on BBC bitesize about the extraction of metals from their ores [Extracting iron and copper - Reactions of metals - AQA - GCSE Chemistry (Single Science) Revision - AQA - BBC Bitesize](https://www.bbc.co.uk/bitesize/guides/zsm7v9q/revision/3) |