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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) |