Year 9 Chemistry

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| TOPIC: Reactivity |

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| Theme: Reactivity | Level: Year 9 |
| Objectives: To develop an understanding of chemical reactions | |

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| Focussing Statements | Key Words Practical | |
| **9Fa: Demolition**   * Explain how chemical reactions are different from physical changes. * Use observations to identify chemical reactions and physical changes. * Use particle theory to describe the cause of gas pressure. * Use particle theory to explain why gas pressure increases if the temperature increases, the number of particles increases or the volume decreases.   **9Fb: Reactivity**   * State the meaning of ‘reactivity series’. * Describe the reactions of metals with water and acids. * Explain the products formed by the oxidation of metals. * Use evidence to place metals in an order of reactivity. * Explain how sacrificial protection prevents iron from rusting.   **9Fc: Energy and Reactions**   * Describe the test for oxygen. * Describe the combustion of hydrocarbons. * Describe examples of energy being needed to start or continue a reaction.   **9Fd: Displacement**   * Describe what happens during a displacement reaction.   **9Fe: Extracting metals**   * Explain why some metals have been used for much longer than others.   **9Ea Materials of the future**   * Recall some examples of ceramics and describe their properties and uses.   **9Eb Polymers**   * Recall some examples of polymers and link their properties to their uses.   **9Ec Composite materials**   * Describe what a composite is, give some examples | chemical reaction  explosive  flammable  implosion  particle theory  physical change  pressure  word equation  native state  oxidation  reactivity series  rust  sacrificial protection  endothermic reaction  exothermic reaction  hydrocarbon  oxidising agent  displace  displacement reaction  electrolysis  mineral  ore  reduced  reducing agent  crude oil  elastic  endothermic  exothermic  monomer  natural polymer  plastic  polymer | **Exploring science 9F and 9E practical works sheets** |