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 reactionexplosiveflammableimplosionparticle theoryphysical changepressureword equationnative stateoxidationreactivity seriesrustsacrificial protectionendothermic reactionexothermic reactionhydrocarbonoxidising agentdisplacedisplacement reactionelectrolysismineralorereducedreducing agentcrude oilelasticendothermicexothermicmonomernatural polymerplasticpolymer | **Exploring science 9F and 9E practical works sheets**  |