**Topic Overview Metals and Non Metals**

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|  | Ref | Outcome | Achieved | ☺ |
| Emerging 1 | E7ScM1.1 | Describe what rusting is |  |  |
|  | E7ScM1.2 | Know the properties and uses of metals |  |  |
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| Emerging 2 | E7ScM2.1 | Describe different methods that can be used to prevent rusting |  |  |
|  | E7ScM2.2 | Be able to classify different materials into metals or non metals |  |  |
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| Developing 3 | D7ScM3.1 | Give word equation for rusting |  |  |
|  | D7ScM3.2 | Know Iron, nickel and cobalt are magnetic elements. |  |  |
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| Developing 4 | D7ScM4.1 | Know Some metals react with acids to produce salts and hydrogen. |  |  |
|  | D7ScM4.2 | Describe the reactions of metals in water |  |  |
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| Securing 5 | S7ScM5.1 | Describe what a catalyst is and give examples |  |  |
|  | S7ScM5.2 | Explain Metals can be arranged as a reactivity series in order of how readily they react with other substances. |  |  |
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| Securing 6 | S7ScM6.1 | Explain how Metals and non-metals react with oxygen to form oxides which are either bases or acids. |  |  |
|  | S7ScM6.2 | Write word equations for the reactions of metals and non metals |  |  |
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| Mastering 7 | M7ScM7.1 | Identify an unknown element from its physical and chemical properties. |  |  |
|  | M7ScM7.2 | Describe an oxidation, displacement, or metal-acid reaction with a word equation. |  |  |
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| Mastering 8 | M7ScM8.1 | Deduce the physical or chemical changes a metal has undergone from its appearance |  |  |
|  | M7ScM8.2 | Deduce a rule from data about which reactions will occur or not, based n the reactivity series. |  |  |
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| Mastering 9 | M7ScM9.1 | Justify the use of specific metals and non-metals for different applications using data provided. |  |  |
|  | M7ScM9.2 | Use particle diagrams to represent oxidation, displacement and metal-acid reactions |  |  |

**Keywords**

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| **Metals:** Shiny, good conductors of electricity and heat, malleable and ductile, and usually solid at room temperature. |
| **Non-metals:** Dull, poor conductors of electricity and heat, brittle and usually solid or gaseous at room temperature. |
| **Displacement:** Reaction where a more reactive metal takes the place of a less reactive metal in a compound. |
| **Oxidation:** Reaction in which a substance combines with oxygen.  **Reactivity:** The tendency of a substance to undergo a chemical reaction. |