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Description automatically generated**Spring 1 – We are Engineers: *Innovating and Inventing***

This theme is centred around the skills of STEM (Science, Technology, Engineering and Maths) to solve problems and create products. All children will be given a design brief to follow in order to create their own products – they will then explore the ’design, make, evaluate process’ to create their products. Some children will have the opportunity to combine their products with elements of computing to develop 21st century products.

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| **Wider Curriculum** |
| Poetry  Non-Fiction Texts  Design and Technology  Science Investigations |
| **Maths** |
| Multiplication and Division  Measurement – Length and Perimeter  Fractions |
| **RE** |
| Christmas, Light of the World and Old Testament |
| **French** |
| Le Habitats |
| **PE** |
| Dance and Swimming |
| **Visual Literacy Focus** |
| Literacy Shed Plus - Literacy Shed Plus - Teaching Resources Made Easy |

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| **Year 4:** |
| This half term Year 4 will develop their understanding of types of energy on our planet and how this energy is transferred or changed though different processes. In science, the children will develop their understanding of electricity and simple electrical circuits. This will cover mains or battery powered electrical devices, electrical safety, insulators and conductors and exploring switches. The children will also explore states of matter by understanding solids, liquids and gases. They will investigate materials that can change states through being heated or cooled and link some of these process to the water cycle. |
| **Theme Impact** |
| Children will explore energy by recognising that it is not a physical object. They will learn how we use energy to label something that gives something else power. Children will begin to recognise how energy sustains both mental and physical activity, as well as helping heat, power or provide light. Through investigations, children will understand how energy can be transferred between objects and can be conducted through certain materials. |
| **Home Learning Project** |
| |  |  | | --- | --- | | Create an information page on Purple Mash about mains or stored electricity in the home. | Use symbols and templates found on Purple Mash to explain why the circuit is complete or incomplete. | | Complete a changing states investigation at home using water in different forms. Guidance to be uploaded onto Seesaw. | Create a water cycle model using recycled materials. Key vocabulary and processes to be uploaded to Seesaw. | |
| **Enrichment** |
| Year 4 children will have the opportunity to carry out Science investigations with Hagley High School students. |