

## Above and Beyond – Design & Technology (Year 9)

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| <b>1</b> | <b>Title:</b> 20 <sup>th</sup> Century Inventions  | <b>5</b> | <b>Title:</b> Simple Socks   |
|          | <b>Details:</b> Brilliant inventors from the late 19th century to the present day have built on each other's work to launch a revolution in electronics. In recognising the team of Bardeen, Brattain, and Shockley for their invention of the transistor, the Nobel Prize also paid tribute to their predecessors, the discoverers of electrons, the vacuum tube, purified crystals, and diodes. Pupils are to research the developments in electronics in the 20th century. Starting with the diode in 1904. |          | <b>Details:</b> Describe the fibre used to make socks and its production method – present your findings as two fact files, where, when, why.<br>One side of A4, include diagrams and descriptive writing about each.   |
|          | <b>Curriculum link:</b> Systems & Control: Electronic Components   |          | <b>Curriculum link:</b> Textiles: Fabrics  |
|          | <b>House Points:</b> 25  |          | <b>House Points:</b> 25  |
| <b>2</b> | <b>Title:</b> Wood Fact File   | <b>6</b> | <b>Title:</b> Illustrators   |
|          | <b>Details:</b> 1.Explain the main difference between hardwoods and softwoods. (It's to do with the leaves)<br>2.Tell me about Red Pine: Is it a hard or soft wood? Where is it grown? What is it used for? Is it sustainable? Justify your answer.<br>3.Tell me about Mahogany: Is it a hard or soft wood? Where is it grown? What is it used for? Is it sustainable? Justify your answer.  |          | <b>Details:</b> Investigate a variety of modern children's illustrators and their work. Focus on the style, medium, and design of their work. Analyse and compare two illustrators' work. Focus specifically on the book covers and the effect their design has on the consumer. Design three different book covers for you in the style of your favourite illustrator |
|          | <b>Curriculum link:</b> Materials Technology: Sustainable Materials  |          | <b>Curriculum link:</b> Graphics: Illustration   |
|          | <b>House Points:</b> 25  |          | <b>House Points:</b> 25  |
| <b>3</b> | <b>Title:</b> Super Soup   | <b>7</b> | <b>Title:</b> The Next Big Thing   |
|          | <b>Details:</b> To interview 10 different groups of people to find out how they save money when buying food. Before, during and after they shop!<br>Make a tasty vegetable-based soup, which is cheap and simple to make. Try to apply some of your money saving tips.<br>You will practice your bridge and claw techniques and using knives safely.   |          | <b>Details:</b> If you were to predict the next big move in the development of mobile phone technology, what would it be?<br>We have had cameras added, MP3 players and ability to play videos. Email can be sent, and apps downloaded. But what is next?  |
|          | <b>Curriculum link:</b> Food Preparation & Nutrition: Planning Meals   |          | <b>Curriculum link:</b> Design 7 Technology: Future Developments   |
|          | <b>House Points:</b> 50  |          | <b>House Points:</b> 25  |
| <b>4</b> | <b>Title:</b> City Life  | <b>8</b> | <b>Title:</b> Engineering in Dereham   |
|          | <b>Details:</b> Produce a model of a city of the future. Outline what facilities will be needed and the structure of the buildings. What materials will be used and how will they be constructed.  |          | <b>Details:</b> Design a 'Engineers Guide' to Dereham, Norfolk. Outlining all the industry that happens in the local area. Your guide should include general information about Dereham, and those things that are assembled and manufactured here.   |
|          | <b>Curriculum link:</b> Materials Technology: SMART Materials  |          | <b>Curriculum link:</b> Materials Technology: Manufacturing Techniques   |
|          | <b>House Points:</b> 50  |          | <b>House Points:</b> 50  |