



## Vision

**Transferable skills:** Students who complete the D&T KS3 programme will have a greater understanding of the world they live in and how and why products are designed the way they are. Students will understand the importance of renewable energy supplies and be more aware of climate change issues. They will have more confidence in tackling minor repairs to belongings, benefiting from knowing which tools they should use for particular problems or tasks.

**Life skills:** Students will begin to understand how ingredients work in certain conditions to produce savoury main meals and sweet products, safely and hygienically. Students will know how and why a healthy diet should be followed, referring in depth to macro and micro nutrients. Food safety will be taught in more depth.

### Carousel delivery model – order may change

	Foci	Assessment	Knowledge Organiser
Term 1	<p><b>Project Title:</b> Design and Build an Electric Buggy (EB) – <b>Systems and control</b></p> <p>Pupils will develop an understanding of the ‘forces’ acting upon a vehicle. They will build on their electrical knowledge learned in Year 7 by building a basic motorised circuit controlled by a Single Pole Single Throw (SPST) switch. The importance of aerodynamics will be discussed along with the introduction of specialised material such as Carbon Fibre. The Pupils will continue to develop and improve their fine hand eye coordination skills and motor skills whilst manipulating small components in order to make their ‘Electric Buggy.’</p>	<p>Pupils will be assessed on their understanding of materials and their properties and demonstrate their construction skills and to reflect and evaluate on the function and performance of their buggy.</p> <p>They will complete an end of module test to confirm their understanding of key principles related to renewable energy and safe use of the laser cutter and Techsoft CAD programme</p>	<p><b>Year 8 DT Safe soldering Hand tools and equipment</b></p>
Term 2	<p><b>Project Title:</b> Wind chime Project - <b>Engineering</b></p> <p><b>Overview:</b> Pupils are introduced to metal and its working characteristics. Introduction to the use of metal in designing and making, they analyse a selection of existing products to make informed decisions about design. They learn about the purpose of a situation, design brief and specification when designing and understand the importance of planning. They use various hands skills and machine processes to work towards producing a wind chime work and are taught to work safely and competently with machinery – Pillar drill and lathe</p>	<p>Students will be required to draw on prior knowledge of working with woods. (in year 7) to complete a component of the wind chime</p> <p>The students will be asked to reflect on the use of the lathe and general metal working skills as part of their final assessment activity.</p> <p>They will complete an end of module test to confirm their understanding of basic tools and equipment.</p>	<p><b>Year 8 DT Engineering tools, lathe and pillar drill</b></p>



# Nobel

Year: 8

Subject: Design Technology  
& Food Technology

Term 3

**Project Title:** Nutrition, food science and food safety.

**Overview:** Students make a crumble by practising the rubbing in method. The students make a flour based sauce to produce a macaroni cheese. They revisit the rubbing in method and extend their experience to make Maids of Honour (a shortcrust pastry product). The students make a yeast based pizza. They will also make a sausage or vegetarian plait to practise handling raw meat if applicable and their finishing skills. Lastly students will make a Bolognese.

Students recap and extend their knowledge on the main nutrients found in the food groups and their detailed functions in the body. Food safety will be revisited and taught in more depth. Students will gain food science knowledge as they experience each demonstration and practical. Seasonality is referred to when making the crumble.

Practical dishes and homeworks. They will also complete an end of module and end of year test to show their knowledge and understanding of food hygiene, personal safety, nutrition, food science and food safety.

**Personal hygiene and safety.**  
**The Eatwell Guide.**  
**Gelatinisation.**  
**Shortening and aeration.**  
**Food safety.**