LONG TERM PLANS
Year 8 (2015-16)

Nobel
Excellence in Everything

ADT Faculty – carousel delivery model – order may change

YEAR 2015-2016

Autumn term

Half term 1	Half term 2
Project Title: Design and Build an Electric Buggy (EB) **Overview:** 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. ***Key Assessment Activity:*** The Pupils will be asked to reflect on the making of their Project as part of their final assessment activity and to complete an End of Module test to confirm understanding and to identify the Pupils attainment.	**Project Title:** Design and Build an Electric Buggy (EB) Pupils will have the opportunity to design, build and decorate their own Buggy having developed a 'specification' for the Project using ACCESS FM design criteria. The Pupils will develop and realise the importance of accurate marking out and soldering skills as well as the importance of aligning axles and chassis components for maximum efficiency during the production process. They will be introduced to a wide selection of specialist vocabulary as used in Industry and by Electricians and Engineers. Pupils will develop their Personal Learning and Thinking Skills, e.g. - by carrying out Independent Research for PLT tasks and by working both as individuals and in teams in the classroom when carrying out practical activities. ***Key Assessment Activity:*** Cross curricular links: (English) Spelling and correct use of language and terminology is vital for accurate work and transmission of ideas. (Maths) –Accurate marking out and use of materials -dimensions / measuring needed to make the projects.

Spring term

Half term 1	Half term 2
Project Title: Wind chime Project **Overview:** 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. ***Key Assessment Activity:*** Numeracy: Use of measurements and dimensions, Key words, using specific tools and equipment's (Steel Rule, Pillar drill, Central lathe) ICT: Various PLT tasks – Presentations, research activities, MS Office, Word, Publisher, PowerPoint.	**Project Title:** Wind chime Project The design process is generally covered week detailed planning to ensure completion of a high quality product. An introduction to metal, specifically aluminium, which can be used as a skills base to understanding and working with materials with differing characteristics throughout design and technology. Students will be required to draw on prior knowledge of working with woods. (in year 7) to complete a component of the wind chime Links to prior learning: Design process, Working with tools and machinery and their Health and Safety implications and Production Plans. Opportunities to develop literacy: Specific design and technology vocabulary, Key words, group discussions, presentations, writing. ***Key Assessment Activity:*** The Pupils will be asked to reflect on the making of their Project as part of their final assessment activity and to complete an End of Module test to confirm understanding and to identify the Pupils attainment.

Summer term

Half term 1	Half term 2
Project Title: Nutrition and working characteristics of food Key Experiences: Making crumble, rock cakes, macaroni cheese, maids of honour, pizza, sausage plait and muffins. Nutrition – healthy eating, referring to the food groups and the five nutrients, plus fibre. Detailed functions of the five nutrients and fibre. ***Key Assessment Activity:*** To prepare and produce a variety of food dishes.	**Project Title:** Nutrition and working characteristics of food Expanding on nutrition knowledge and referring to protein, Vitamin A, D, B and C, iron and calcium. Consider source and functions of these nutrients. Relating nutrition to food products. Working characteristics of food – gelatinization, shortening and raising agents. ***Key Assessment Activity:*** Cross curricular links: Literacy: Subject specific language e.g., rubbing in, short, gelatinisation, coagulation, creaming. Numeracy: Relating nutrient amounts on food labels to GDAs. Weighing, measuring, setting temperatures, calculating cooking times. ICT: Licence to cook website.