Design & Technology Curriculum Overview 2017-2018

In Key Stage 3 Technology, pupils study Resistant Materials and Food Technology in rotation during the school year:

Resistant Materials

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| The programme of study in Resistant Materials seeks to increase their knowledge and understanding of the subject through the designing and making of products, in line with the KS3 National Curriculum objectives. Students will explore what Design & Technology is all about and why it is important. They will build on basic practical skills and technical vocabulary. |
| **Year Group** | **Project** | **Key Words** |
| 7H:\KS3\Travel Puzzle\DSCN2342.JPGH:\KS3\Key Fob\7K\PTDC0180.JPG | This is a module where the pupils will be given the opportunity to design and make a 1)Key Fob from acrylic plastic and 2) Travel Puzzle from wood for an identified market. Pupils will identify the market and introduce possibilities for manufacturing in quantities. They will become more independent in their research; identifying user needs and writing a specification. They will be asked to evaluate their work at the end. | Health & safetyRisk/HazardPlastic/AcrylicCoping SawFlat FileCross Filing/Draw FilingWoodResearchDesign IdeasEvaluationPlan of Making  |
| H:\KS3\Bookends\DSCN3000.JPGH:\KS3\Bookends\DSCN2999.JPG8 | This is a module where the pupils will be taught about different types of structures and given the opportunity to design and make book ends from wood using the key principles of stable structures. They will be asked to evaluate their work at the end. | StructureShell/Frame/MassNaturalManufacturedForcesMoodboardModelling |
| H:\KS3\Clock Project\DSCN2993.JPG9H:\KS3\Clock Project\DSCN2996.JPG | This is a module where the pupils will be given the opportunity to investigate different types of mechanisms and how they work. They will then design and make a clock from acrylic for an identified client to a chosen theme. Pupils will be able to build upon design and practical skills already acquired, as well as to learn more about different plastics, their uses and how they can be re-cycled. | MechanismsMotionRotaryReciprocatingOscillatingLinearAcrylic |
| Students develop their practical skills further by designing and making products based on a user’s needs. During Key Stage 4 pupils receive two lessons of Resistant Materials each week. All pupils will participate in Unit Award Schemes which will offer learners the opportunity to have their achievements formally recognised with a certificate issued by AQA each time a short unit is successfully completed.  |
| H:\KS4\GCSE\Products\Yr11\DSCN2762.JPG10 - 11H:\KS4\GCSE\Products\Yr11\DSCN2935.JPG |  Brio Labyrinth Project (understanding joints, motion and mechanisms, cams)H:\KS4\GCSE\Products\DSCN2442.JPG | MotionCamsJoints – Lap, Finger, Dowel, Dovetail, Mortise & Tenon & BridleWood/Timber |
| 12 - 13Picture 060H:\Btec\Unit 1 Yr11\PTDC0001.JPGHow to Hang Pictures Without Destroying Your Walls | Students undergo the BTEC Construction Entry Level (E3) course from Year 12. They complete 2 units which is internally moderated and assessed. **Unit 1:** Producing a timber product (Tray)This unit is designed to enable learners to produce a three-dimensional timber product (for example tray, picture frame, mirror frame). Learners will develop the skills needed to manufacture a product in timber and timber sheet materials.**Unit 3:** Developing home improvement skills (Hanging a picture frame and a shelf)This unit introduces learners to the hand tools, materials, components, fixings and personal protective equipment used in home improvement, and offers learner’s opportunities to develop the skills needed to make home improvements. | CAD/CAMPPETools & FixingsJointsLaser Cutter |

Food Technology Curriculum Overview 2017-2018

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| **Year Group** | **Project** | **Key Words** |
| 7 | This is a module designed to introduce pupils to the working kitchen environment, basic equipment and H&S awareness. Pupils are given the opportunity to use new skills through investigation and evaluation of simple dishes. Pupils are also encouraged to form opinions about their own and others’ efforts and achievements. | Health & safetyDietFruitHealthy eatingBreakfastRecipe |
| 8 | This module is designed to extend pupils basic knowledge of previously learned skills and awareness of H&S to further improve their design and making techniques based on a healthy eating programme**.** | Eat Well PlateNutrition GroupsSoupSeasonal |
| 9 | This programme of work is divided into three projects relating to Cereals, Wheat and Bread Production, Fats in the Diet and Fibre in the Diet. Pupils are given opportunities to research food production from original sources to the plate, design and make dishes relating to the topics including investigation, disassembly and evaluation activities. | Bread ProductionDisassembly Sensory Analysis |
| **BTEC Jamie Oliver**: Home Cooking Skills Level 1 &2The unit is based on the chef Jamie Oliver’s proposition that being able to cook is an essential life skill which empowers people to make changes that have benefits to health and wellbeing. |
| 10/11 Entry  | To gain knowledge and understanding of the safe handling, preparation and storage of food. To gain knowledge and understanding of how a cereal is developed from raw materials into secondary product. Pupils will participate in a short course inspired by Jamie Oliver where they will be gaining knowledge, skills and confidence to cook meals at home. Pupils will prepare, cook and present a range of dishes by following pictorial recipes as independently as possible. | IngredientsRecipe nutritionalBread productionWheat |
| 10/11 BTEC | **BTEC Jamie Oliver**: Home Cooking Skills Level 1This unit aims to give learners the knowledge, skills and confidence to enjoy cooking meals at home. Learners will gain understanding of how to economise when planning meals to cook at home. The unit will encourage learners to transfer skills learnt to other recipes to continue cooking for themselves and their families and to inspire others by passing on their knowledge. | Seasonal ShoppingQuantities |
| 12 BTECT:\Staff\Working Docs\DESIGN TECHNOLOGY 2013-2014\Food Tech New\BTEC level 1\Yr13 Assignment\DSCN2900.JPG | **BTEC Jamie Oliver**: Home Cooking Skills Level 2This unit aims to give learners the knowledge, skills and confidence to enjoy cooking meals at home. Learners will gain understanding of how to economise when planning meals to cook at home. The unit will encourage learners to transfer skills learnt to other recipes to continue cooking for themselves and their families and to inspire others by passing on their knowledge.  | Cross contaminationHAACPFood Hygiene |