KS3 Curriculum Year 9				
CURRICULUM INTENT? To allow students to experience a broad Y9 Technology curriculum on rotation to help make informed decisions as to any subjects they may wish to pursue at KS4				
Graphics allows pupils to explore designing in both drawing, modelling and CAD. Pupils can use design influences and use real life topics for their projects that prepare them for a GCSE in D&T (paper and board's route / graphics). Each segment of the subject is a mini version of the assessment objectives that are needed for the N.E.A for year 10/11. Food: To equip learners with the knowledge, understanding and skills required to cook and apply the principles of nutrition and healthy eating. To encourage learners to cook and enable them to make informed decisions about food and nutrition in order to be able to feed themselves and others affordably and nutritiously, now and later in life. To equip learners with knowledge and understanding to minimise the environmental impact of their food preparation choices Engineering allows pupils to explore and work with metals. This mini project has been designed to include cutting, shaping, finishing and joining aspects of metal technology. Each segment of the subject is a mini version of the assessment objectives that are needed for the N.E.A for year 10/11.				
TERM BY TERM BREAKDOWN – Knowledge acquired and skills developed: 3 termly rotations in Year 9				
	Graphics **1 term Graphics**	**Food** **1 term Food**	**Engineering** **1 term Engineering**	**Opportunities beyond the classroom**

Termly rotations	*Knowledge:* *NET DEVELOPMENT* *Pupils use disassembly to understand how packaging works. (HW) they will sketch then use CAD to create a correctly working Net Development fort their food package design.* *Geometry and drawing skills are tested and extended at this time.* *Pupils learn about paper and board materials and their characteristics.* ***PRINTING AND TYPOGRAPHICS a AND DRAWING*** *Pupils will learn about CMYK (litho/flexo) printing and how images are made up. They will learn about crop marks and colour registration. This will be added to their final design NET in order to make a "print ready" product.* ***DESIGN INSPIRATION*** *Pupils Create a brand identity using Australians (aboriginal) influences. They transfer these skills to computer to create Vector based design ideas.* *Pupils are then asked to show variation and context for their work.* *Pupils will look at existing Olympic imagery and styles. They will be able to describe how they have used existing material and made it unique* ***Key Skills:*** *CAD (2d drawing and layout skills)* *Typography* *Illustration* *Marker rendering* *Model making skills (packaging)* *Orthographic, perspective and Isometric drawings.*	*Nutrition through different life stages, special diets(food intolerance v allergies) Consequences of under and over-nutrition. Food spoilage and its prevention. Technology and media .reducing the environmental impact of food production.* *Key Skills:* *Shaping and finishing dough (enriched bread), food styling (fruit gateaux) Binding (meatballs) enrobing(chicken kiev)*	*Knowledge:* *Working with Metals Project,* Introduction to health and safety in the workshop. Focus on hazards and precautions when using hand tools and machines. Panning for production. Working with engineering materials to fabricate an artefact using the Pillar Drill, Hot work Area (forge) and engineering hand tools. Students will learn how to cut, shape and deform materials ***Key Skills*** *Production Planning and Job sheets* *Marking out; hand tools* *Cutting; hand tools and machinery* *Shaping/deforming; bench rollers and hot work area* *Heat treatment; bending steel* *Joining and assembling engineering materials* *Semi-permanent fixings; nuts and bolts* *Producing a Risk Assessment; Pillar Drill*	Food Preparing food for service. STEM club
Key Independent Learning Resources			**GREAT READS**	

Online textbook Information sheets on how cooking methods effect nutritional value. Information sheets in booklets. British Nutrition Foundation website Resources on student drive. Research using computers (Design Influences) Create worksheets, design templates Computers for CAD (Techsoft V3 , Solidworks 2019 & Sketch up) Resources of student drive. Exemplar products and designs from previous pupils. Soldering equipment and Vacuum former machine and HIPS plastic sheet. BBC Bite size SAM learning Technologystudent.com	The Theory and Practice of Metalwork (George Love) Elementary Workshop Technology (BR 698) GCSE Engineering (Neil Young & Steve Wallis)