

KS3 Design and Technology Curriculum 2018-19	
Topic	Content overview
Year 7	
Photograph Frame Project	Introduction to Health and Safety in the workshop. Use of personal protective equipment. The Design Process Design Briefs/ Mindmapping/ Measuring in millimetres/ Introduction to Graphics/ Isometric drawing, rendering and crating Design ideas and development. Production planning Manufacturing a high quality product Evaluation including peer reviews.
Year 8	
Automata Project	Design Brief and mind mapping. Types of motion Introduction into key mechanical elements Product Analysis Systems approach Design Ideas and development. Classes of lever Development Production planning Prototyping and manufacture of an automata. Evaluation including peer reviews.
Year 9	
Jitterbug Project	Analysis of a design task. Creating design criteria CAFEQUES Cost, Aesthetics, Function, Ergonomics, Quality, User, Environment, Safety Design ideas, development, evaluation. Use of a flow chart. Manufacture an electronic jitterbug
Year 10	
Graphics	Perspective, marker pen rendering, 3rd Angle orthographic projection.
New & Emerging Technology	Industry and enterprise Sustainability and the environment. People, Culture and society. Production Techniques including CAD/CAM. Informing design decisions
Energy, Materials, Systems and devices	Energy generation Energy Storage Modern Materials Smart Materials Composite materials and technical textiles Systems approach to designing Electronics Mechanisms
Materials	Papers & boards Timbers Polymers Metals
Specialist Technical principles	Selection of materials
Polymers	Forces & Stresses Ecological and social footprint Sources and origins Using and working with materials Stock forms, types and sizes Scales of Production Surface treatments
Year 11	
Non-Examined Assessment	35 Hours - 50% of GCSE is an extended project to design & make a product. Identify & Investigate design possibilities Producing a design brief & specification Generating design ideas Developing design ideas Realising design ideas Analysis and evaluation Final 2 Hour Examination is 50% of GCSE covering theoretical elements of the course.