

Year 8	Projects	Knowledge	Development	Skills	Key Vocabulary	What to research at home/ recommended websites and reading list
<b>Autumn Term 1</b>	Workshop Recap /intro  ICT Skills 1	Students will recap and show their understanding of the health and safety implications of what not to do in a workshop or DT lesson gained over the last 2 years.  Students will gain a deeper understanding of how to use computer to enhance their work in shorter time frame	Students will complete a series of tasks on each machine via demonstration and recording health and safety issues.  Students will be given tasks to learn shortcuts in most softwares and how to be more efficient with certain software	Health and Safety, Hand Tools, Machinery  CAD, Software, Design, Maths	Please refer to the KS3 DT Keywords List	Please refer to the 'DT-KS3-Read-and-watch-list'
<b>Autumn Term 2</b>	Speaker	Students to develop knowledge and understanding of the ecological and social footprint of product design and manufacture.	Students will develop knowledge of material selection, their sources and the ecological and social impact they have on the environment and people.	Upcycling, Environmental issues, Amplificaton, Timber, Measuring and marking out, manufacture, machines, hand tools, finishing, sanding	Please refer to the KS3 DT Keywords List	Please refer to the 'DT-KS3-Read-and-watch-list'
<b>Spring Term 1</b>	Storage Box	Students will gain the understanding of technical drawing for manufacture. They will also learn different drawing techniques (isometric and orthographic projections)	Students will develop a working product using a range of timbers and manufactured boards. They will gain knowledge of manufacturing terminology and principles (such as quality control, tolerance etc)	CAD/CAM, Routing, Joints, measuring and marking out, manufacture, dowel joints, timbers, nailing (tacking), sanding, jigs, drilling, MDF and Pine materials	Please refer to the KS3 DT Keywords List	Please refer to the 'DT-KS3-Read-and-watch-list'
<b>Spring Term 2</b>	Pewter Casting Skills	Students to develop knowledge and skill of the pewter casting process using CAD/CAM to manufacture moulds.	Students are to use CAD/CAM to create their own mould which is then pewter cast.	Pewter casting, moulds, CAD/CAM, filing, hack sawing, polishing, finishing, wet and dry, drilling	Please refer to the KS3 DT Keywords List	Please refer to the 'DT-KS3-Read-and-watch-list'
<b>Summer Term 1</b>	Sports Board Game	Students to develop and practice planning working with a range of different materials. Students to develop capability to work with constrained material amount. Practical tool use as well as CAD/CAM	Students are to use both hand tools as well as CAD/CAM to create a multitude of elements for their final design of working board game	Plywood, MDF, Acrylic, Alloy wire, line bending, hand tools, machines, strip heater, screwing, vinyl cutting, CAD/CAM, measuring and marking, maths (projection/angles)	Please refer to the KS3 DT Keywords List	Please refer to the 'DT-KS3-Read-and-watch-list'
<b>Summer Term 2</b>	Drawing Skills	Students will gain the understanding of technical drawing for manufacture. They will also learn different drawing techniques (isometric and orthographic projections)	Students will develop a working product using a range of techniques and develop confidence in converting 2D to 3D design and building the resilience to draw	Technical drawing, rendering, shading techniques, perspective drawing, isometric drawing, oblique drawing, orthographic drawing, CAD (sketchup)	Please refer to the KS3 DT Keywords List	Please refer to the 'DT-KS3-Read-and-watch-list'

### KS3 Keywords

design	create	safety
designing	assemble	goggles
creating	evaluate	apron
review	evaluation	aesthetics
investigate	review	appearance
research	judge	cost
analyse	improve	price
analysis	suggest	economy
specify	user	environment
specification	client	surroundings
develop	consumer	consumer
improve	essential	user
explain	desirable	client
plan	necessary	function
predict	one-off	purpose
organise	batch	role
make	continuous	woods
smart	plastics	metals