

Year 7 Design Technology Curriculum Overview

Year 7	Graphics	CAD/CAM	Tea light	Phone Stand	Food
Skills	Single point perspective Isometric Rendering 2D CAD	Developing 3D CAD Designing skills Additive manufacture & 3D printing	Designing; design Brief and specification Making: basic hand tools and equipment	Tie-dye Sewing machines 2D-3D shapes Sublimation printing	Vegetable couscous Croque monsieur Sausage & spinach Pasta Chilli veg noodles Banana cookies
Knowledge	Different style of 3D drawing How paper board is made Project planning	Using functions of 3D CAD package Developments in advanced manufacturing	Technical Knowledge: materials	Dyeing techniques Sustainability Designing for a purpose	Introduction skills Safety & hygiene Diet Bacteria Eatwell guide
Alive and British Values	We can communicate We are creative We are organised	We communicate We are creative We are resilient	We are organised We are creative Rule of Law (working safely in the workshop)	We communicate We are creative We are resilient	We are organised We are resilient
Assessment	Different drawing techniques 2D design skills Outcome (bookmark) End of unit test	Understanding of 3D CAD tools and functions Design outcome 3D outcome End of unit test	Design Brief and Specification Manufacturing planning Final outcome End of unit test	Accurate use of machinery Final outcome End of unit test	Accurate use of equipment Each practical is assessed End of unit test
Careers	Graphic Design	Design engineer / technician	Range of technical/ craft based careers	Textile print	Café/restaurant server

How this builds on learning (knowledge and skills) from Key Stage Two:

Students will come with a wide range of DT experience at KS2 which may include design and modelling tasks, building basic electric circuits, food and even some CAD experience.

The Year 7 curriculum builds on this foundation whilst introducing a specialist working environment and associated tools and equipment

Year 8 Design Technology Curriculum Overview

Year 8	Steady Hand Game	Structures	Food	Pencil Case	Automata
Skills	Soldering Vacuum forming Creative designing	Modelling Testing and evaluating	Scones Chelsea buns Muffins Minin quiche pizza	Inserting a zip Sewing machines recycling	Tools & equipment for working with wood Model making
Knowledge	Electronic components and circuits Thermoplastic forming processes	Forces/ loads Good structural shapes Construction of structures Collating and evaluating data	Technical skills Weighing & measuring Methods – rubbing in, creaming, forming a dough	Designing with a theme Applique Patchwork couching	4 types of motion M=Mechanisms, including CAMS Woodworking techniques
Alive and British Values	We can research We are interdependent	We can research We are interdependent We can contribute We can review	We are organised We are interdependent	We can research We are creative We are organised	We can research We are organised We can communicate
Assessment	Understanding of individual components and circuit operation Designing Product outcome End of unit test	Understanding of forces and structures Design of structures Testing and evaluating End of unit test	Accurate use of equipment Each practical is assessed End of unit test	Designer key points Product outcome Testing End of unit test	Understanding mechanisms Complexity Choice of mechanical design End of unit test
Careers	Engineering, electronic / electrical Product Design	Structural engineering	Barista	Home furnishings	Mechanical engineering Model maker

Year 9 Design Technology Curriculum Overview

Year 9	Night light	Graphics/ Illustration	Food	Cushion	Design History Clock
Skills	Building electronic circuits CAD/CAM Working with Wood	Developing hand and electronic Graphic Design skills	Cottage pie Vegetable mac and cheese Chickpea sliders Beef kofta & flatbread	Cutting a pattern Lay plans applique	Designing/ making with a range of materials
Knowledge	Electronic components and circuits Circuit construction techniques CAD / CAM	Typography	Food choice Dietary needs Food presentation Seasonality	Designer influenced design Fabric decoration applique	Designing within set constraints Design history (specific eras/ designers) Constructing/ joining different materials
Alive and British Values	We can research We are interdependent	We can communicate We are organised	We are organised We are interdependent	We communicate We are creative We are resilient	We value diversity and choice/ mutual respect We can research We can communicate We are creative
Assessment	Understanding of individual components and circuit operation Designing Product outcome	Creative design Graphic outcomes	Accurate use of equipment Each practical is assessed End of unit test	Practical grade Theory grade End of unit test	Working to set brief & constraints Creative design Planning outcome
Careers	Engineering, electronic / electrical Product Design	Graphic designer Illustrator	Sous chef	Accessories designer or buyer	Product design

How will studying this subject in Key Stage Three help students to make their unique contribution to the world?:

Through the encouragement of imaginative and creative designing that considers the social, moral and ethical impact of the students' outcomes and the designed world.