

DESIGN TECHNOLOGY – YR7

Units taught in Year 7

AUTUMN	SPRING	SUMMER
Graphics Students complete a number of small design and make projects. Students learn how to draw and shade accurately, produce and evaluate design ideas and card model.		
Resistant Materials In this module students learn how to use a range of workshop tools safely and accurately. Students work towards making a steady hand game that encompasses a simple soldered circuit.		

Main skills developed in Year 7:

- Using a range of machinery to aid in the production of practical outcomes
- Researching existing products to provide knowledge and inspiration
- Developing key vocabulary
- Talking and listening – peer and self-assessment
- Drawing and communication skills
- Developing and improving independence and confidence in their own skills

How parents can help to support their son's/daughter's learning:

- Ensuring pupils follow the Health and Safety contract, which is sent home at the start of Year 7
- Taking an interest in the projects they are involved with, by discussing school work at home

Students will be set homework weekly in Technology subject

The following websites can help your son/daughter's learning:

- www.bbc.co.uk/bitesize



DESIGN TECHNOLOGY – YR8

Units taught in Year 8

AUTUMN	SPRING	SUMMER
Graphics Students work on a range of mini design and make projects with the theme of retro toys. Students design and make a hand held maze game and a yoyo.		
Resistant Materials Student produce a hand held CAM toy and research a range of retro toys.		

Main skills developed in Year 7:

- Using a range of machinery to aid in the production of practical outcomes
- Researching existing products to provide knowledge and inspiration
- Develop more advanced design skills
- Developing key vocabulary
- Communication and design skills
- Talking and listening – peer and self-assessment

How parents can help to support their son's/daughter's learning:

- Purchasing ingredients for Food Technology practical lessons
- Getting involved in homework

Students will be set homework fortnightly in most of the Technology subjects

The following websites can help your son/daughter's learning:

- Technology student and the British Museum, exhibitions and galleries for design inspiration



DESIGN TECHNOLOGY – YR9

Units taught in Year 9

Students experience the different areas of Technology on a rotation throughout the year. Each term they will study two different Technology areas

AUTUMN	SPRING	SUMMER
Graphics In Year 9, students complete a series of design and make mini projects. The first project is based on Hull City of Culture. Students produce a sticker to advertise the event. They then produce a range of accompanying merchandise.		
Resistant Materials Students produce a night light that incorporates a simple electronic circuit. Students learn how to produce a quality finished product.		

Main skills developed in Year 9:

- Using a range of machinery to aid in the production of practical outcomes
- Researching existing products to provide knowledge and inspiration
- Develop more advanced design skills
- Developing key vocabulary
- Communication and design skills
- Talking and listening – peer and self-assessment

How parents can help to support their son's/daughter's learning:

- Purchasing ingredients for Food Technology practical lessons
- Getting involved in homework

Students will be set homework fortnightly in most of the Technology subjects

The following websites can help your son/daughter's learning:

- Technology student and the British Museum, exhibitions and galleries for design inspiration



DESIGN TECHNOLOGY – KS4

Units taught in Year KS4

Students experience the different areas of Technology on a rotation throughout the year. Each term they will study two different Technology areas

AUTUMN	SPRING	SUMMER
<p>Students learn practice and theory of designing skills, materials and components such as paper sizes A0 to A6, paper boards and thicknesses.</p> <p>Characteristics of paper board and graphic materials, properties and uses of virgin, recycled and reusable paper and board for manufacturing products.</p> <p>Design and market influences, task analysis, research and analysis, sustainability of design, product specification, creativity, development of ideas and evaluation of ideas. Students also learn about consumer choice and legislation, sustainability and environmental issues, moral ethical and economic issues.</p>	<p>Controlled assessment - Materials and process and target audience. Students learn, researching, filtering information, identifying relevance of information, presenting information.</p>	<p>Controlled Assessment: Making process – focus on board game. Marking out, cutting, developing nets, CAD, QA checks.</p>
	<p>Controlled assessment - Specification - developing design criteria, justifying design decisions</p>	<p>Controlled Assessment: Making process – focus on additional elements of board game (dependent on individual designs)</p>
	<p>Controlled assessment - Drawing Practice through technical drawing. Generating ideas with annotation.</p>	<p>Controlled Assessment: Evaluation</p>
	<p>Controlled assessment - Developing Ideas through analytical thinking, prototyping, prototyping development. Final Design Sheet, including formal drawing.</p>	<p>Controlled Assessment: Modifications and Use of Technology</p>

	<p>Controlled Assessment - Planning – How do draw flow charts. Marking – focus on boxes and packaging.</p>	<p>Controlled Assessment: Social Issues</p>
	<p>Easter Holidays: Revision – making processes, industrial and in school.</p>	<p>Mock exam preparation Mock exam Feedback and evaluation</p>

Main skills developed in Year KS4:

Students are taught to: be creative and innovative when designing. To design products to meet the needs of clients and consumers and understand the design principles of form, function and fitness for purpose. Students learn the role that designers and product developers have, and the impact and responsibility they have on and to society. Students learn to analyse and evaluate existing products, including those from professional designers, develop and use design briefs and specifications for product development; and consider the conflicting demands that moral, cultural, economic, and social values and needs can make in the planning and in the designing of products. Importantly students learn to reflect critically when evaluating and modifying their design ideas and proposals in order to improve the products throughout inception and manufacture.

DESIGN TECHNOLOGY - CONT

SMSC and British Values:

Students studying resistant materials are required to understand the role of the designer and consider the impact of design proposals on society and also identify developments in technologies, social and cultural ideas, fashion trends and economic factors that influence consumer choice and product design.

Consumer choice and ethical issues

Students should understand the influence of ethical trading and the consumers' role in social and environmentally sustainable design.

Moral and environmental issues

Students should understand the moral and environmental issues associated with textiles production and understand what is meant by the recycling of materials, waste reduction, Fair Trade resources, and biodegradable materials.

Health and Safety issues

It is important students also understand that the health and safety of both consumers and the work force is important.

As designers and consumers students should be able to, select the appropriate materials and components;

consider safety in terms of function and be aware of consumer rights and safety warnings on products and manufacturing processes.

Students should be aware of and understand Risk Assessments for manufacturers in relation to: the correct and safe use of tools and equipment. Students should select the correct and understand safe usage of materials, chemicals, solvents, harmful substances, procedures used in manufacturing and the need for correct protective clothing and safe working practices.

