

PRODUCT DESIGN – YR7

Units taught:

In year 7, students produce three mini projects starting with either the jitterbug or the night light which takes them right up until Christmas. Post-Christmas, students design and make a pencil box which involves many traditional skills like cutting and drilling but also utilises the departments CAD CAM facilities. Their final mini project of the year is a head phone wrap based on a theme of their choice.

Main skills developed:

Students will produce research, create designs and make products using materials such as acrylic, MDF and soft wood and processes ranging from cutting and drilling to vacuum forming and laser cutting.

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

- Take an interest in the projects they are carrying out through discussion at home.
- Support students with all design and research homework's.
- Provide students with a contribution towards materials used.

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

- www.bbc.co.uk/bitesize
- www.pinterest.co.uk
- www.Technologystudent.com

Extra-Curricular opportunities

The Product Design department run a pallet Christmas tree making club after school one night a week in the run up to Christmas. Help with homework is always available.

SMSC & British Values:

Students acquire a broad general knowledge of different cultural traditions through producing a design based upon different cultural images. Through the research process students will learn and then discuss the different beliefs of different cultures creating an understanding for how other people live in other countries.

Mutual respect and tolerance of those with different faiths/ beliefs creative and design ideas.

Students will develop their self-knowledge, self-esteem and self-confidence through producing a working product that they can use or give away as a gift.

Students are encouraged to accept responsibility for their behaviour and to understand how they can contribute positively towards each other's work (carried out during peer assessment tasks and positive comments to support each other's ideas.)



PRODUCT DESIGN – YR8

Units taught:

In year 8, students concentrate on a stereo amp project that is split up into three different areas of study. Students soldering skills will be put to the test as they populate a PCB to develop the electronics side of the amp. They will then create the casing for the electronics and create a design that is based on an SMSC theme of their choice for the decoration of the amp casing.

Main skills developed:

Students learn the functions of on board and off board components and develop their soldering skills during the production of the amp project. Students learn how to draw using isometric and orthographic projection before making their amp casing using MDF and softwood. Traditional hand drawing and rendering skills and software packages such as Photoshop are then utilised to create a design based on the SMSC theme that they researched for homework which is then sublimated onto the front of their amp casing. All of these additional techniques place students in a good position for opting for Product Design at GCSE if they so wish.

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

- Take an interest in the projects they are carrying out through discussion at home.
- Support students with all design and research homework's.
- Provide students with a contribution towards materials used.

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

- www.bbc.co.uk/bitesize www.pinterest.co.uk
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Extra-Curricular opportunities

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Mutual respect and tolerance of those with different faiths/ beliefs creative and design ideas.

Students will develop their self-knowledge, self-esteem and self-confidence through producing a working product that they can use or give away as a gift.

Students are encouraged to accept responsibility for their behaviour and to understand how they can contribute positively towards each other's work (carried out during peer assessment tasks and positive comments to support each other's ideas).



PRODUCT DESIGN – YR9

Units taught:

In year 9, students study a drawing unit where they learn drawing techniques including isometric, perspective, and orthographic and CAD drawing. They also study rendering techniques using various media including colouring pencils, water colour pencil, graphics pens and oil pastels.

They then undertake their first mini project that uses nature as inspiration.

Students use various techniques to develop ideas for products such as picture frames and picture trees, storage units and lamps.

Main skills developed:

Students learn various practical techniques and processes such as laser cutting, 3D printing, sublimation printing, brazing, welding and will use of computer software such as 2D design, Google Sketchup and Photoshop. They will also have the opportunity to experiment with various cutting, drilling, abrading and forming techniques.

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

learning:

- Take an interest in the projects they are carrying out through discussion at home.
- Support students with all homework's set in particular giving guidance with the extended writing tasks.
- Provide students with a contribution towards materials used.

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

- www.gcsepod.com
- www.pinterest.co.uk
- www.technologystudent.com

Extra-Curricular opportunities

The Product Design department run a pallet Christmas tree making club after school one night a week in the run up to Christmas. Help with homework is always available. Students are also encouraged to use the workshop facilities to work on projects after school.

SMSC & British Values:

Students acquire a broad general knowledge of different artist styles and traditions through producing samples based upon different images in different artist styles.

Through the research process students will learn and then discuss the different Inspirations of different artists creating an understanding for how other people generate ideas based upon nature and the respect they have for our environment.

Students will develop their self-knowledge, self-esteem and self-confidence through producing a portfolio towards coursework submission.

Students are encouraged to accept responsibility for their behaviour and to understand how they can contribute positively towards each other work (carried out during peer assessment tasks and positive comments to support each other's ideas).



PRODUCT DESIGN – YR10

Units taught:

In year 10, students work on an architecture project whereby they research the work of several architects, look at various design movements and analyse which materials and processes would best suit their ideas. The students use these areas to influence their ideas and subsequent development to create a scaled architectural model.

Main skills developed:

Students conduct relevant research and use this to develop their own designs using hand drawing techniques such as isometric and perspective as well as CAD drawings in Sketchup and 2D Design. They will use an assortment of media to help convey their ideas ranging from graphics pens and oil pastels to collage and hand modelling. They then select an area of each design to sample using a practical technique of their choice before developing a final design which they will then make.

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

- Take an interest in the projects they are carrying out through discussion at home.
- Support students with all homework's set in particular giving guidance with the extended writing tasks.
- Provide students with a contribution towards materials used.

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

- www.gcsepod.com
- www.pinterest.co.uk
- www.technologystudent.com

Extra-Curricular opportunities

The Product Design department run a pallet Christmas tree making club after school one night a week in the run up to Christmas. Help with homework is always available. Students are also encouraged to use the workshop facilities to work on projects after school.

SMSC & British Values:

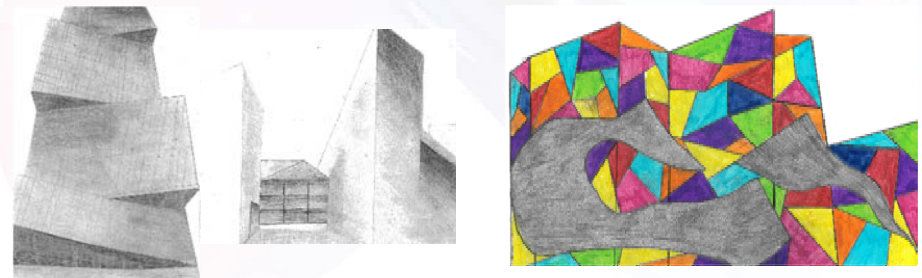
Students acquire a broad general knowledge of different art related traditions through producing a design based upon Matisse and Picasso. Through the research process students will learn and then discuss the different beliefs of different cultures used by contemporary textiles artists can be incorporated to develop an understanding for how other people are inspired.

Mutual respect and tolerance of those with different faiths/ beliefs creative and design ideas is encouraged.

Students will develop their self-knowledge, self-esteem and self-confidence through producing two portfolios for coursework submission.

Students are encouraged to accept responsibility for their behaviour and to understand how they can contribute positively to one another's ideas (carried out during peer assessment tasks).

Self-assessment is also encouraged to develop self-awareness in order to develop creative skills.



PRODUCT DESIGN – YR11

Units taught:

In year 11 students work on a final major project to develop and extend their skills. The project uses many of the skills and processes they have learnt during the course to produce their final outcome.

The final unit is an exam based unit. The students will be provided with pre-exam material and a theme/ influence to choose from for development. Students will produce a supporting portfolio of ideas and test samples to support the final piece they produce in a 10 hour practical timed exam.

Main skills developed:

Students refine and develop the use of a wide variety of drawing, CAD/CAM and traditional practical skills to support the making of their final project and exam project. Techniques are developed in complexity and combined together to make interesting functional and aesthetic products.

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

- Take an interest in the projects they are carrying out through discussion at home.
- Support students with all homework's set in particular giving guidance with the extended writing tasks.
- Provide students with additional materials they may occasionally need or contribute to their cost.
- Support the school by helping to ensure students attend compulsory intervention sessions.

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

- www.gcsepod.com
- www.pinterest.co.uk
- www.technologystudent.com

Extra-Curricular opportunities

Students are encouraged to continue working on projects from their lesson in the department after school. They can also attend after school on Thursdays, this often becomes mandatory for those who require intervention to achieve their target grades.

SMSC & British Values:

Students acquire a broad general knowledge of different cultural traditions through producing a designs based upon different cultural images. Through the research process students will learn and then discuss the different beliefs of different cultures creating an understanding for how other people live in other countries.

Mutual respect and tolerance of those with different faiths/ beliefs is encouraged when producing creative design ideas.

Students are encouraged to accept responsibility for their behaviour and to understand how they can contribute positively to one another's ideas (carried out during peer assessment tasks).

Self-assessment is also encouraged to develop self-awareness in order to develop creative skills.

