

Year 10	Year 11
<p><b>Term 1</b> Student will work on a design and make project in their double lesson. During their single lesson they will look at a variety of theory topics taken from the AQA Graphic Products specification. This will give them a foundation for their learning in the design and make project and will also build their subject knowledge in preparation for their final exam.</p> <p><b>Design and Make Project</b> Pupils will design and make a series of children's toys. The main focus of the project is the client. Pupils will record making through production flow charts and evidence any QC. The skills covered are:</p> <ul style="list-style-type: none"> <li>• Client profile</li> <li>• Design ideas</li> <li>• Use of hegner saw</li> <li>• Use of pillar drill</li> <li>• Use of cordless drill</li> <li>• Use of belt sander</li> <li>• Use of 2D design</li> <li>• Use of laser cutter</li> <li>• Use of a range of hand tools</li> </ul> <p><b>Autodesk</b> Pupils will learn how to use the 3D software Autodesk.</p> <p><b>Assessment</b> Pupils will have a summative end of unit assessment.</p>	<p><b>Term 1 focus</b> Controlled Assessment Pupils will start AC2 'Design Development' for their controlled assessment. Pupils will use their research to come up and produce a range of creative design ideas for their product. These will then be developed using a range of skills such as drawing, modelling, material testing and CAD.</p> <p><b>Controlled Assessment</b></p> <ul style="list-style-type: none"> <li>• 2D CAD</li> <li>• Flow diagrams</li> <li>• Orthographic drawing and cutting list</li> </ul> <p><b>Theory</b></p> <ul style="list-style-type: none"> <li>• How to produce a orthographic drawing</li> <li>• Production plan</li> <li>• How to produce a flow diagram with QC and QA</li> <li>• How to produce a cutting and costing list</li> <li>• How to use and develop skills in Autodesk</li> </ul> <p>Term 1/2/3 focus Controlled Assessment Pupils will start AC3 'Make' for their controlled assessment. Pupils will work independently on this and gain support from the teacher where necessary.</p> <p><b>Controlled Assessment</b> Make of product</p> <p><b>Theory</b> Making diary Exam questions</p>
<p><b>Term 2</b> Student will work on a design and make project in their double lesson. During their single lesson they will look at a variety of theory topics taken from the AQA Product Design specification. This will give them a foundation for their learning in the design and make project and will also build their subject knowledge in preparation for their final exam.</p>	

**Design & Make project**

Pupils will make a pop up book that include a range of mechanisms and front/back cover.

Pupils will cover the following skills:

- Research skills
- Photoshop
- Illustrator
- 2d design
- Use of craft knives
- Use of adhesives
- Material selection
- Laser cutter
- Assembly of materials – paper/card/boards

**Theory**

Pupils covered the following theory topics:

- Mechanisms
- Card and paper properties
- Adhesives properties
- Product Testing of techniques -

Assessment

Pupils will have a summative assessment via Kahoot

**Term 3, 4 & 5**

**Term 3/4 focus-**

**Controlled Assessment**

Pupils will complete AC1 'Investigating the Design Context' for their controlled Assessment. Students will investigate and complete research sections on Task Analysis; Mood Boards; Product Analysis; Customer, Client Profiles; Customer Questionnaire; Research Analysis and Design Criteria(specification)

**Theory**

Students will study a range of theory tasks to lead onto their controlled assessment tasks.

- How to analyse a product

**Term 3**

Pupils will complete AC4 'Evaluation' of their controlled assessment.

**Controlled Assessment**

- Evaluation of product
- How product can be made in industry
- Evaluation against specification
- Client testing and feedback

**Theory**

- How to evaluate a product
- Production methods

- How to profile a client
- How to produce and evidence a questionnaire
- How to analyse research
- How to write a specification

**Term 4 focus –**

**Term 4 & 5**

**Controlled Assessment**

Pupils will start AC2 'Design Development' for their controlled assessment. Pupils will use their research to come up and produce a range of creative design ideas for their product.

These will then be developed using a range of skills such as drawing, modelling, material testing and CAD.

**Controlled Assessment**

- Initial ideas
- Design ideas
- Development plan
- Developed ideas
- Card modelling
- Material research/testing
- 3D CAD

**Theory**

How to create initial ideas – jack straws/scruffitti

How to develop a design - acetate

How to develop an idea – SCAMPER

Material properties

**Term 4**

Pupils will cover the following theory topics

- Electronics – components, circuits, devices
- Mechanical components
- Smart materials
- Fixing and bindings
- Standard components
- Consistency of production – jigs etc

Pupil will work on exam technique and revision skills. Cover all topics, produce WTM and complete exam papers.

**Term 5 focus –**

**Term 5**

**Controlled Assessment**

Pupils will start AC2 'Design Development' for their controlled assessment. Pupils will use their research to come up and produce a range of creative design ideas for their product. These will then be developed using a range of skills such as drawing, modelling, material testing and CAD.

**Controlled Assessment**

- Card modelling
- Material research/testing
- 3D CAD
- Final Design
- 2D CAD
- Flow diagrams
- Orthographic drawing and cutting list

**Theory**

How to use and develop skills in Autodesk

SMSC

CAD/CAM

How to develop skills in 2D design