



# DESIGN AND TECHNOLOGY: 3D DESIGN (AQA)

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In a time not so long ago, humanity existed without the internet, social media, mobile devices, electric lighting and even the taps that give us running water! All these products have come from the imagination of designers, many of whom began their design careers with a 3D Design A-Level course. It's a course about being a creative and innovative problem solver; about designing products that improve peoples' lives. It involves spotting problems, researching and then producing exciting new products that use materials in unusual and surprising ways.

### Content and Assessment

#### Component 1 (60%) – Personal Investigation

This is a practical investigation supported by written material, in a way that is similar to your GCSE coursework folder. Students are able to independently select a focus for their project, and are required to research a designer, engineer or craftsman. This research

will then be used to produce a range of design ideas, complete some development and testing of different manufacturing processes, which will lead to the manufacture of a finished product.

#### Component 2 (40%) – Response to externally set title

This component will start in February of Year 13. You will select, with support from your teacher, a design brief from a range of set briefs from the examination board. You will undertake extensive and detailed research and produce a wide range of innovative design solutions during a preparatory session. You will then have 15 hours to manufacture a fully working prototype based on the supporting work completed.

### Teaching

The classes will be taught in a range of styles. Lessons to prepare you for the two components will use skills workshops, online resources and practical demonstrations/activities. Lessons at the start of Year 12 will develop your creativity and ability to communicate your design

ideas verbally and graphically, whilst allowing you the opportunity to experiment with new manufacturing processes. You will be expected to work much more independently across all units than you have at GCSE. The course aims to develop your skills in creative and practical problem solving, working independently is central to this aim.

### The Future

For those students wishing to work in the design or manufacturing industry this course is the first step. It can lead to a range of degree courses including Product Design, Architecture or Engineering to name a few. Alternatively, some students prefer to move onto a BTEC Foundation Course to expand their creativity into wider disciplines before deciding on a specialised degree course. A career as a Designer or Engineer are just two of many possibilities. Some students have also

gone on to Apprenticeship courses supported by employers.



# Independent Learning

## Independent learning tasks in Product Design

<p>1. Use the internet to search the main topics beyond the areas covered by your teacher at GCSE. Look for video clips, animations or images of production processes, testing or product examples. Add these to your M drive for reference when designing, testing and developing later in the year. Some good places to start:</p> <ul style="list-style-type: none"><li>• Google search How do they do it? – There are lots of sites about the Channel five program with clips etc. If you get the official program site you can watch complete episodes online</li><li>• Sky news website – technology section</li><li>• Young designers.org</li><li>• Designmuseum.org</li></ul>	
<p>2. Look at and explore products that you find inspiring. What materials do they use? How have they been designed, modelled and manufactured? Think about how these inspiring products could support your own design ideas. Try producing a series of quick sketches for a variety of products which follow the same theme.</p>	
<p>3. Regularly look at TV listings. Look for programs with a creative or design based focus. It does not have to be strictly product design. Any creative program will extend your understanding of being creative with materials and processes! Examples of good programs include The Genius of Design, Grand Designs on Channel 4 (if you want to study architecture you should be watching this!), How do they do it? With Robert Llewellyn Channel 5, Richard Hammond’s engineering connections. James May from Top Gear often does really good programs with a design focus. Kevin McCloud from Grand Designs has a program called Man Made home that is fab. The Gadget Show and Gadget Man are great too. The discovery channel, More 4, BBC four, BBC 2 and Channel 4 and Sky Arts channels have lots of great programs on covering a whole range of design issues. Catch up TV for BBCiplayer, ITV player are also great for catching series after they have aired.</p>	
<p>4. Go to Manchester City Centre- there is a vibrant design community there. Mooch around the Northern Quarter, The Manchester Craft and Design Centre is here with designer makers who produce work on the premises covering a range of design disciplines from ceramics and jewelry to domestic products and fashion. The City Art Gallery on Moseley Street has a room dedicated to design on the second floor, or take a trip to ‘Home’ in Machester the Contemporay Arts Space on Whitworth Street, they sell design specific magazines such as Icon, BluePrint, Crafts, Creative Review, Grand Designs magazine and hundreds of others! They even have a coffee shop for that relaxing break during your day of design in Manchester!</p>	