

A-level Product Design

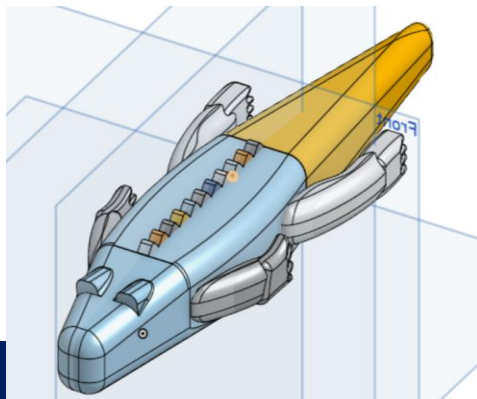
AQA: 7552

A-Level Product Design (AQA 7552)

Where **creativity** meets **problem-solving**.

Explore how ideas become real products
— from concept sketches to working
prototypes and learn about mass production.

Learn to think and innovate like a designer,
make like a maker, and problem solve like an
engineer.



What Is Product Design?



Product Design is about realising ideas that solve real world problems.

You'll **explore** how people use products, **experiment** with materials and processes, and bring your ideas to life through models and prototypes.

It's the subject where creativity meets curiosity.

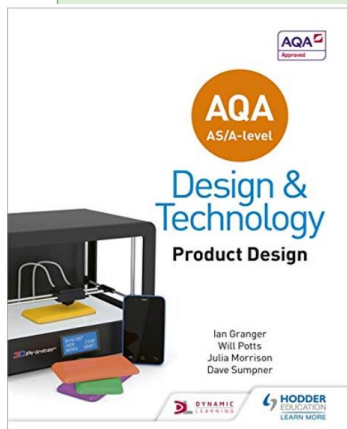
Assessment:

Written examinations:

Paper 1	+	Paper 2
<p>What's assessed</p> <ul style="list-style-type: none"> • Technical principles • Designing and making principles • Specialist knowledge 		<p>What's assessed</p> <ul style="list-style-type: none"> • Technical principles • Designing and making principles • Specialist knowledge
<p>How it's assessed</p> <ul style="list-style-type: none"> • Written exam: 2 hours • 100 marks • 25 % of A-level 		<p>How it's assessed</p> <ul style="list-style-type: none"> • Written exam: 2 hours • 100 marks • 25 % of A-level
<p>Questions</p> <p>Mixture of short answer, multiple choice and extended response questions.</p>		<p>Questions</p> <p>Section A: Product analysis</p> <ul style="list-style-type: none"> • 40 marks available. • Up to six short answer questions based on visual stimulus of product(s). <p>Section B: Commercial manufacture</p> <ul style="list-style-type: none"> • 60 marks. • Two extended response questions worth a total of 30 marks each.

NEA: Coursework:

Non-exam assessment (NEA)
<p>What's assessed</p> <p>Practical application of:</p> <ul style="list-style-type: none"> • Technical principles • Designing and making principles • Specialist knowledge
<p>How it's assessed</p> <ul style="list-style-type: none"> • Single substantial design and make task • 100 marks • 50 % of A-level • Approximately 40 hours in duration • Written or electronic portfolio with photographic evidence of final outcome • Assessment criteria to include: <ul style="list-style-type: none"> • exploration • designing • making • analysis and evaluation. <p>The above will be assessed in a holistic way.</p>
<p>Task(s)</p> <p>Students will undertake a substantial design and make task and produce a final prototype. The context of the task will be determined by the student.</p>



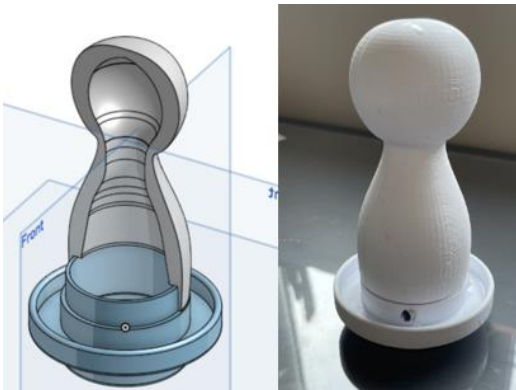
Year 12 Projects



Learning by Doing

You'll complete a range of exciting projects designed to build creativity and divergent thinking:

Design and make a user-centred chair for a classroom.



Respond to a live toy industry brief set by a leading toy manufacturer.

Explore materials and processes through experimentation.

Year 12 Projects - Core Design Skills



Think. Draw. Make. Test.

You'll develop essential design skills used by professionals:

- Marker rendering and visual communication
- Engineering drawing and CAD
- Card modelling and rapid prototyping- 3D printing.
- Iterative design – idea, prototype, critical analysis, refine.....repeat.

Theory Through Practice



Learn by Experimenting

We teach theory through a mix of interactive lessons and hands-on practical work:

- Casting and materials testing
- Product disassembly and analysis
- Workshop experiments with wood, metal, and polymers
- Learn about mass manufacturing.

Understanding comes from making and testing — not just reading.

The UK Creative Industries

Design Is a UK Superpower

- The UK's creative industries are worth over £100 billion a year – and growing.
- 1 in 8 UK businesses are part of the creative economy.
- Design drives innovation in technology, transport, entertainment, toys and fashion.
- The **film and TV industry is rapidly expanding around London and the Thames Valley**, creating new opportunities in **set design, modelmaking, and digital production**



Universities and Careers



ual: university
of the arts
london



Where can Product Design Take You?

A-Level Product Design is a stepping stone to:

- Product, Industrial, Interior, furniture or Automotive Design.
- Architecture and Engineering.
- Prop and set design for film and TV.
- UX/UI and Graphic Design
- Toy Design and Modelmaking

Universities love design students — creative thinkers who can problem-solve and make ideas real.

Thinking Beyond AI

AI Can't Replace Imagination

As AI transforms industries, human creativity becomes more valuable than ever.



Product Design teaches you to:

- Think differently
- Challenge assumptions
- Generate original ideas

“Design is where technology meets humanity.”

Join Us

Curious? Creative? This Is for You.

We're looking for students who:

- Are curious about how things work
- Love experimenting and making
- Want to solve problems creatively



At Furze Platt Product Design A level is taught by specialist teachers with real industry experience — bringing insight, creativity, and real-world knowledge to every project.

Be bold. Be inventive. Be a designer.

Example of part of the NEA:

IDEA 1: DEVELOPMENT

After getting positive feedback from my client, I decided to develop this idea more. I did another drawing, making each unit look more like shipping containers. I also drew a floor plan. Each studio flat was 2 x 20m shipping containers that were set off by 2 ft. This created the balcony giving a floor space of about 30m².

I initially felt that an excellent way to increase the usable space was to include a high bed in my design. The advantage of this is that a sofa can be placed underneath it thus doubling the use of this space.

I deliberately decided not to put side windows in the design, partly because I wanted to keep the costs down but also these are standard units so the inside face would not be able to have windows. Instead I chose to have large glass sliding doors into each balcony which will provide an abundance of light. I wanted to keep the flats identical as ultimately the rent will remain at the same level for each one.

My target market on the whole felt that a restaurant table and chairs was superior to as they mainly eat with their meals as on the sofa in front of the TV. I therefore removed these from my original design and used a table which folds flat against the wall for occasional use.

MODELLING

Whilst I was doing the design of both the interior and the carry case I struggled with translating the overall scale and feel of a model of one of the containers would assume. After researching online the size of the shipping containers I visited one in person so that I could take the appropriate measurements of the width/height of the container from card and used scissors and a scalpel to cut the individual flats. I then stuck these onto my model using double sided sticky tape although as I had stuck the model together with masking tape it was a very wobbly result.

Once I was happy with the look, I then wanted the model to produce the size. This took a couple of attempts as the smaller pieces kept on falling through the grid so I redesigned it with a cutlery tray which I used as a scale. I then used a scalpel to cut along that edge to separate the smaller pieces manually. As these were both made using a scale of 1:100, they were a small reminder for me to use throughout my project.

The second model I made was of the whole building. It was a very simple model so I did not include any of the intricacies. It was purely to see the size and the scale so I could determine how portable it would be. This also enabled me to calculate the necessary dimensions of the carry case. To make the model I used corrugated cardboard and hot glue to bond the pieces together for ease and simplicity. In one section I stuck white card to the outside to represent the vertical steel. This was so that I could equalise the effect and to ensure that they did not overpower my model. In this design, rather than making individual models of shipping containers and sticking them together, I purely drew on where the indentations would be to give the same effect and to break up the shape.

The next model I made was of the interior of an individual studio flat using corrugated cardboard and hot glue. In addition I made scale sketches of some of the furniture. I intentionally made these models movable so that I could rearrange them within the flat to find the most space efficient layout.

MAKING DIARY: CARRY CASE

Once all sides were attached I experimented with chains which differed in size, length and colour. The chain attaches between the back side of the case and the base. As it is detachable there is the option to keep the sides at 90 degrees so that the model can be seen in the mirror or can be laid flat. I felt that one of the chains was too short and two of the chains were not strong enough as snapped when pulled. One of the chains was about the correct length and size so that was the one I decided to use. As an added benefit, the links of the chain is three wide which means that I could make a hook out of three thick laser ply.

Once the case was assembled I discovered a problem. The sides would not lie completely flat when the case was open as the clips were not flush. I therefore designed some feet to attach to the base of the case, thus allowing my model and creating a slight incline for the sides. I laser cut circles of three thick laser ply and stuck it together to create each foot. These were then wood glued on the underside of each corner of the base. I made a makeshift jig to ensure the accuracy of the placement. As a result of this before gluing I had to sand down the areas on the base which had previously been varnished. Once the glue was dry I then had to re-varnish.

I sourced a framed mirror was about the right size, just in a size with padding and carefully used a hammer and chisel to remove the frame. I discovered that the mirror was a few millimetres smaller than the size of the case which I was sticking it to. I turned out this was a good thing because the edge of the mirror was quite sharp and uneven so I used ZD design to create a small acrylic border for the outside to protect it and to cover up the imperfections. As the acrylic was using was three thick, I incorporated a hook for the chain. This was laser cut.

IDEA 1: CAD

After getting very positive feedback on this design, I decided to do a CAD model on Sketch Up so I could show the different features more easily. It would also allow anyone going forward on this design idea to be visible and understood better.

In keeping with my research, I included some benches, bins and abstract glass into the communal areas.

MAKING DIARY: MODEL

I created the side wall for each balcony using the laser cutter and stuck them together with double sided sticky tape. After this I designed and cut the back panel and the base and used the hot glue gun to join them together. I made the balcony glass sliding doors (using the same method as for the side windows). Floor by floor I then glued in all the different components to achieve both of the completed sides.

Feedback from my client regarding progress indicated that when looking at the side face on, there were many hot glue marks inside the windows and not all of the protruding sections were level or flush. Also, the front and back sides were not parallel but further apart at the top than they were at the base. Following on from this constructive criticism I took down both sides and rebuilt. I decided that it would be best to use 2 sheets of clear PVC (laminated together like the windows) for the protruding sections, enabling me to arrange them in the correct place before sticking, ensuring that all parts were level. I used super glue to join them together.

FINAL OUTCOME PHOTOS AND CLIENT FEEDBACK

I arranged a meeting with my client where I presented my completed project to him. His first impressions were very favourable. He was impressed with the carry case and was eager to see what was hidden inside. On removing the lid and folding down the sides to reveal the model he was very enthusiastic. He complimented the look, reveal and mystery. He spoke highly of my professionalism during the presentation and also the excellent standard of manufacture and quality of finish throughout. He particularly liked the case being small and compact making it easy to transport. He also felt the mirror was an excellent addition to give some perspective.

One particular aspect about the actual model that he liked was the use of the lighting and the impact it had on the internal space by bringing it to life. He complimented me about the amount of effort and care undertaken with the making of the model and that the outside walls of the shipping containers were instantly recognisable as such.

He was pleased that the communal area was not just a room but instead was a great, practical garden area. By doing this I have provided a practical and tranquil zone for all residents which will be beneficial to their mental health and overall wellbeing.

A selection of slides from a personal project