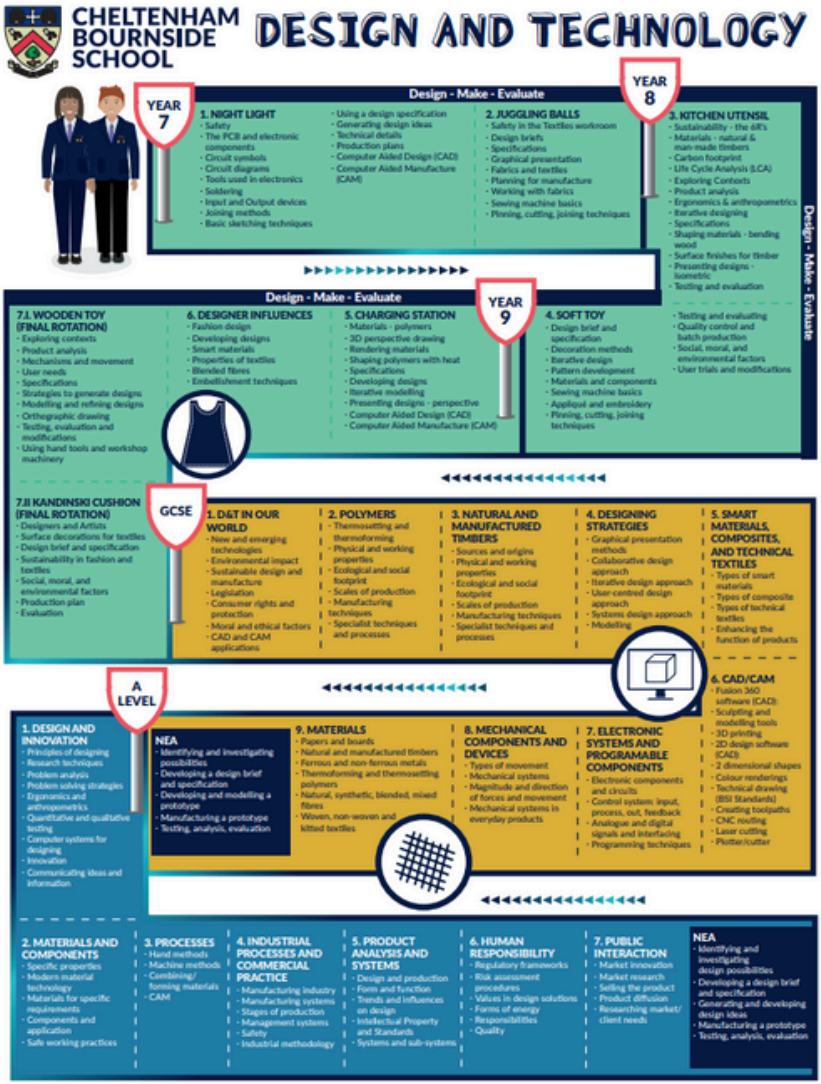
‘The Aspiring Product Designer’ KS4/5

CHELTENHAM BOURNSIDE SCHOOL

Inspiring lives through learning

‘The Aspiring Product Designer’



‘The Aspiring Product Designer’

Product design is where imagination meets innovation, turning ideas into objects that shape the way we live. Whether you dream of becoming an architect, a designer, an engineer, an entrepreneur, or simply want to understand how the products around you are created, studying Product Design is a brilliant first step. The subject sits at the intersection of creativity, technology, and problem-solving. Every object you interact with – from your phone to your furniture – has been carefully designed with the user, the materials, and the environment in mind.

By engaging with this programme of super-curricular activities – reading, watching, listening, and experimenting beyond the classroom – you will start to see the world differently. Why are some products iconic? What makes a design sustainable or accessible? How do ideas move from sketches to prototypes to global production? Who are the people shaping the future of design, and how can you learn from their approaches?

Product Design is not just about making things; it’s about asking questions, solving problems, and improving lives. The more you explore beyond the A-Level course, the more connections you will see between design, society, and innovation. It’s a dynamic, fascinating field – and you are about to become part of it.

Mr Gibbons
Head of Design & Technology

Reading list

The Fundamentals of Product Design - *Richard Morris*

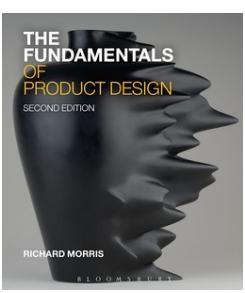
This is almost a “must-read” for product design students. It gives a clear, coherent view of the whole product design process: from researching what people need, through idea generation and concept development, to materials, manufacturing, CAD, and finally launching the product. It has many case studies and examples, including more recent developments like additive manufacturing (3D printing) and crowdfunding, so you get both theory and relevance.

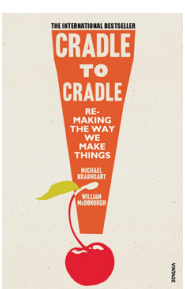
Cradle to Cradle: Remaking the Way We Make Things - *William McDonough & Michael Braungart*

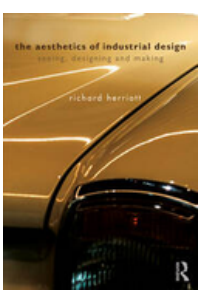
This book offers a powerful perspective on sustainability and environmental responsibility. Rather than just reducing harm, the authors argue for rethinking how we design products so that materials can be reused in closed loops. It encourages you to think differently about lifecycle, materials, waste, and the long-term consequences of design choices.

The Aesthetics of Industrial Design - *Richard Herriott*

This is more on the theory of form, aesthetics, visual appearance, and how we perceive product form. If you're interested in how good design looks, feels, and communicates visually, this gives you tools for thinking critically about proportions, materials, finish, form-language, and the balance between function and appearance. Very useful for refining your own design signatures.







Competitions

UK Space Design Competition (UKSDC)

Competition Overview How to Register

- A national / regional competition where students work in multi-disciplinary teams to design a settlement in space, considering engineering, structures, human factors, sustainability, business case, etc.

- It offers regional/digital heats and then a national final (Imperial College London) for successful teams.

- Good for practising teamwork, presentation, design under constraints.

Student Design & Sustainability Competition (Concrete Centre)
Link to competition website

- A national brief, focusing on sustainable / environmental design (e.g. flood defences for Canvey Island) using materials like concrete.

- Free to enter, gives access to learning resources, and is relevant for those interested in combining material / structure / sustainability considerations.

Competitions

WorldSkills UK – Additive Manufacturing / Graphic Design etc.
Link to competition website

• These are national competitions in technical/creative skills. For example, Additive Manufacturing or Graphic Design categories. Additive Manufacturing Competition - WorldSkills UK

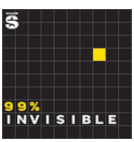
• They provide realistic, timed challenges and are widely respected. Great for improving precision, CAD/CAM skills, and seeing how you compare nationally.

Listen and Watch

Podcasts

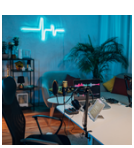
Design Matters with Debbie Millman
One of the world's first podcasts about design. Conversations with designers, architects, artists, and thinkers about their creative processes and the impact of design on everyday life.

Clever
Hosted by designer Amy Devers, this podcast dives into the lives of designers and makers. It explores how products and ideas come into being, giving students insight into the human stories behind design.



99% Invisible
A hugely popular show about design, architecture, and the unnoticed details that shape the world around us — from everyday objects to large systems. Perfect for sparking curiosity about how and why things are made the way they are.

The Design Better Podcast (InVision)
Focuses on innovation, product design, and collaboration. Episodes often feature leaders from companies like Google, Airbnb, and IDEO, discussing how design drives change.



Disruptive Design Podcast (Leyla Acaroglu)
All about sustainability, circular design, and systems thinking. Encourages young designers to think critically about environmental and social responsibility in their work.

Listen and Watch

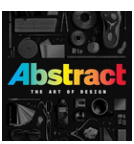
Films/YouTube/TV

Films / Documentaries

Objectified (2009)
A documentary by Gary Hustwit about industrial design and the creativity behind manufactured objects. Interviews with iconic designers (e.g. Jonathan Ive, Dieter Rams).

Rams (2018)
A documentary about legendary German designer Dieter Rams, exploring his philosophy of “less, but better” and its lasting influence on modern design.

TV Series



Abstract: The Art of Design (Netflix)
Each episode profiles a different designer (product, architecture, graphics, footwear, etc.). Brilliant visuals and insight into design thinking at the highest level.

Big Life Fix (BBC)
UK designers and engineers use innovation and design thinking to solve real-world problems for people with disabilities and challenges. Perfect for showing design’s impact on lives.

YouTube

The Futur
A channel for creatives and designers, offering content on design processes, visual communication, branding, and design thinking. Great for students wanting professional insight.

Listen and Watch

Films/YouTube/TV

What is Product Design? (5-7 min)
A clear introduction to what product design actually is: what product designers do, what skills are involved, how products are conceived. Useful for students newer to the idea.

Product Design Made Simple | The 5 P's to Turn Ideas into Reality (~7 min)
https://youtu.be/-G2t14H-jEA?si=Neh-EFf-9g8NB0sp
Introduces a handy framework (“5 P’s”) for developing products from idea through to making/making changes. Good for giving students structure to their own projects.

Ted Talks

Tony Fadell: The first secret of design is noticing
Tony Fadell, known as the "father of the iPod," discusses the importance of observing everyday problems and designing solutions that improve people's lives.

Ryan Ford: Set Fire to Design Process—Throwing away unrealistic frameworks
Ryan Ford challenges traditional design processes, advocating for more flexible and realistic approaches that better align with real-world constraints and user needs.

Monique Brickham:
Design Thinking for Human Problems
Monique Brickham highlights how design thinking can address complex human-centered problems, focusing on empathy and user experience to create meaningful solutions.

Listen and Watch

Social media

Instagram / TikTok / YouTube Channels

@designmilk (Instagram / YouTube)
Focuses on modern design, architecture, product trends, and innovative materials. Good for visual inspiration and emerging design ideas.

@thefuturishere (Instagram / YouTube)
Covers design thinking, branding, and practical tips for designers. Also hosts short interviews and case studies.

Dezeen (Instagram / YouTube / Twitter)
Leading architecture & design magazine sharing projects, interviews, and product design trends worldwide.

@eyedesigntv (YouTube / Instagram)
Explores product design, prototyping, and design thinking with step by-step videos.

Work Experience and Events

Work experience in a product design–related setting is invaluable for A-Level students. It allows you to see first-hand how ideas move from concept to prototype to finished product, giving context to classroom learning. By working alongside professional designers, engineers, or manufacturers, you will gain insight into the skills, tools, and processes used in the industry - from CAD software and materials selection to project management and sustainability considerations.

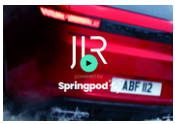
Beyond technical knowledge, work experience helps you to develop skills essential in the workplace, including teamwork, communication, problem-solving, and time management. It also provides exposure to real-world challenges, such as meeting client requirements, adhering to budgets, and iterating on designs based on feedback.

Importantly, work experience strengthens university and apprenticeship applications by demonstrating initiative, commitment, and genuine interest in the field. It also helps students make informed decisions about future career paths, whether in industrial design, engineering, architecture, or related creative industries.

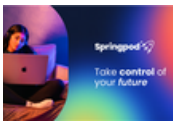
In short, work experience bridges the gap between theory and practice, inspiring creativity while preparing students for the expectations of higher education and the design industry.

Work Experience and Events

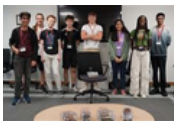
Product Design University Taster | Springpod
Learn how to deploy creativity, functionality and innovative thinking to develop thoughtful products that address real-world problems.



JLR: Drive Your Future
From design and modelling to sustainability, supply chain and engineering, explore the endless opportunities that keep JLR's iconic vehicles on the road.



Graphic Design Virtual Work Experience: Unveiling Concepts and Industries | Springpod
Embark on a creative journey with the Graphic Design Work Experience. Graphic design surrounds us, influencing our daily lives from road signs to gaming experiences.



Summer School and Work Experience | Ultra PCS
Successful candidates work as part of a team on an exciting engineering project, as well as attending several engineering talks and career progression sessions.

Work Experience Weeks | Renishaw
For students in Y10 to 13, local to our headquarters site in Wotton-under-Edge, Gloucestershire. We offer two schemes: Engineering and Software

Engineering Work Experience | G-TEM
We have created a week-long placement to get you working within multiple departments of our business.

inspire breakfast lectures

The Careers Team at Bournside deliver regular Inspire Breakfast Lectures. Open to students in Year 10 - 13, these business-focused breakfasts invite speakers from all corners of industry to share their professional experiences and valuable insights with Bournside students over breakfast; opening our eyes to the opportunities available across many industry sectors.

Take a look at upcoming speakers and reserve your space here.