

# SUMMER WORK PRODUCT DESIGN

## Head of Department

Miss K Klavenes

[kklavenes@gordons.school](mailto:kklavenes@gordons.school)

## Exam Board

AQA

## Specification

7551/7552

## COURSE DETAILS

### Examination

The course is examined at the end of Year 12 through a 1.5hour exam and the self-directed NEA (50%). The NEA is a single design and make task using one of three contextual challenges set by set by AQA. The course is examined as a whole in a 2.5hour exam (30%), a 1.5hour exam (20%) and in the self-directed NEA (50%) at the end of Year 13.

#### Y12 Term 1:

- **Inclusive Design Project** introducing the key principles of: user-centered design; iterative design; primary and secondary research skills including fact finding and conducting task analysis; generation and realization of ideas through sketching and prototyping; testing and evaluating systematically using third-party feedback, comparison to the specification and benchmarking; exploring stakeholders; and understanding requirements.
- **NEA** based on one of the AQA contextual challenges.

#### Y12 Term 2:

- **NEA** completion.
- **Theory** – Technical Principles and Designing and Making Principles.

#### Y12 Term 3:

- **Theory & Exam Skills** – Technical Principles and Designing and Making Principles completion.
- **Y13 NEA** self-directed project research, problem spotting.

#### Y13 Term 1-2:

- **NEA** completion.

#### Y13 Term 2-3:

- **Theory Revision & Exam Skills** – Technical Principles and Designing and Making Principles.

## SUMMER WORK FOR INTRODUCTION TO YEAR 12

TASK	TOPIC	
1.	NEA Problem Spotting	<p>i. <b>Research (Secondary &amp; Primary) and document exploration of each of the 3 AQA contexts to include fact finding, problem spotting: <u>Outdoor learning/ Live music experience/ New product promotion</u> and document in a PowerPoint Portfolio.</b></p> <p>ii. <b>Select one problem and conduct a task analysis (step by step of an existing problem story board using photos) and highlight the key issues specifically for users. Identify the key stakeholders.</b></p>
2.	Key Designers & Design Movements	<p><b>Produce a fact file/ top trumps cards on each of the following designers and design movements. These should include images, dates, key principles, materials, technologies and socio-economic influences as well as any other significant information.</b></p> <p>i. <b>Philippe Stark, James Dyson, Margaret Calvert, Dieter Rams, Charles &amp; Ray Eames, Marianne Brandt</b></p> <p>ii. <b>Arts &amp; crafts, Art Deco, Modernism, Streamlining, Post-Modernism</b></p>

## WIDER READING TO PREPARE FOR COURSE

- Making It: Manufacturing Techniques for Product Design - Chris Lefteri
- Design: The Definitive Visual History - Dorling Kindersley
- Inclusive Design Toolkit Issue 1-4 [http://www.inclusivedesigntoolkit.com/VBA\\_bulletin\\_issue\\_1/](http://www.inclusivedesigntoolkit.com/VBA_bulletin_issue_1/)
- Inclusive Design Calculator [http://www.inclusivedesigntoolkit.com/VBA\\_bulletin\\_issue\\_3/#nogo](http://www.inclusivedesigntoolkit.com/VBA_bulletin_issue_3/#nogo)
- Exploded Drawing Technique <https://www.youtube.com/watch?v=qr4V8Nr9FaI>

## ESSENTIAL

- AQA AS Specification (NEA) <http://filestore.aqa.org.uk/resources/design-and-technology/specifications/AQA-7551-SP-2017.PDF> p. 39-58
- Iterative Design in Action <https://www.youtube.com/watch?v=Rnsk5IA52ps>
- The Inclusive Design Toolkit <https://www-edc.eng.cam.ac.uk/downloads/idtoolkit.pdf>
- Re-thinking Process: The Circular Economy <https://www.youtube.com/watch?v=zCRKvDyyHmI>
- Innovation Students of Product Design (Ep 1-4) <https://www.youtube.com/watch?v=CnKeVs-9zs>

AS

# Design and Technology: Product Design

Non-exam assessment (NEA)

June 2020

---

## Design, make and evaluate project

To be issued to candidates on or after 1 June 2019

### What's assessed?

Students will be required to undertake a small-scale design, make and evaluate project in response to a realistic contextual challenge. The context of this task is set by AQA. With reference to the context, students are expected to identify a specific task that meets the needs and wants of a user, client or market.

**Release date:** 1 June

**Evidence:** Written or electronic design portfolio with photographic evidence of final prototype(s).

This assessment is to be carried out under supervised conditions.

### Contextual challenges:

1. Outdoor learning. Design and make **3D** prototype(s) for a product that will encourage learning in an outdoor environment.
2. Live music experience. Design and make **3D** prototype(s) for a product that will enhance the experience of going to a concert or music event.
3. New product promotion. Design and make **3D** prototype(s) that could be used to promote a new product.

# Phillipe Starck



- He aims to enhance user experience and bring humour to everyday tasks- products are typically form over function and aesthetically pleasing
- Thought provoking, playful designs
- He was appointed the artistic director for the French presidency of the European Union in 2008.
- He was named the Ambassador of Creativity and Innovation for France.
- His most famous work are his designs for Alessi
- His father was an aeronautical engineer and his mother was a painter, potentially inspiring his designs.
- As a child, he deconstructed objects such as bicycles to observe their parts understand their functions.
- His first major interior design project involved refurbishing private apartments for the French president. Other notable interiors he designed include the Paramount and Royalton Hotels in New York and Café Costes in Paris.
- He has designed various products including the Microsoft optical mouse, Puma shoes, Samsonite luggage, Fossil watches, Bénéteau boats, Glacier water bottles, Thompson Multimedia televisions, and Aprilia motorcycles.
- He designs objects to the best of their means, always economical and never wasteful. He believed that before being beautiful, something must first be useful. This is best seen in the products he has designed, which are affordable and found in mass-market venues.

# James Dyson



- Dyson did courses in interior design and furniture design from the Royal College of Art from 1966 to 1970.
- He considers the cost, durability and environmental impact of his company and his products
- He uses responsibly sourced suppliers who follow the ethical and environmental code of conduct which covers a range of subjects including working hours, freedom of association, environmental monitoring and fair discipling practices.
- While he was there he got his first idea of using cyclonic separation in a vacuum cleaner so that it would not lose its suction quality as it picked up dirt. Dyson was very disappointed from his Hoover Junior that continuously got clogged up reducing its suction after every use. After five years of creating over 5000 prototypes, he finally launched the 'G-Force' cleaner in 1983. To his disappointment no manufacturer or distributor was interested in his idea, so he decided to launch his product in Japan.
- Dyson got this technology patented in 1986. After not getting a positive response from the major manufacturers, he decided to establish his own manufacturing company in England. He got his first breakthrough from his television advertisement that had the slogan 'say goodbye to the bag' a quality that attracted customers more than the efficient suction quality of the product.
- The Dyson Dual Cyclone turned out to be the fastest selling vacuum cleaner in the United Kingdom. When he launched his product in America in 2002 it was an instant success and in just three years managed to capture 20% of the market.

# Margaret Calvert



- Was famous for designing UK road signs- used simple pictograms and typefaces to reduce distractions to make the signs easy to understand. The signs use a font called Transport (easy to read)
- Was appointed graphic design consultant to the Anderson Committee, followed by the Worboys' Committee, by the UK government
- She has designed commercial fonts for Monotype, including the eponymous Calvert font, which she created in 1980 for use on the Tyne and Wear Metro system
- She was awarded an Honorary Fellowship by the University of the Arts London in 2004, and has a Senior Fellowship from the Royal College of Art. She also has an Honorary Doctorate from the University of Brighton

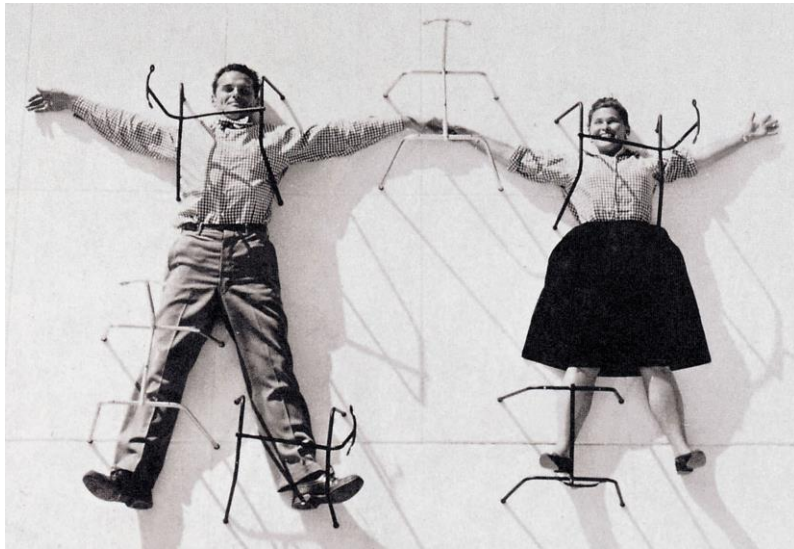
# Dieter Rams

**BRAUN**



- According to Dieter Rams, good design: is innovative; makes a product useful; is aesthetic; makes a product understandable; is unobtrusive; is honest; is long-lasting; is thorough down to the last detail; is environmentally friendly; involves as little design as possible
- Shortly after graduating with honours, he took a position with a Frankfurt-based architect.
- He moved on to worldwide consumer products company Braun as an architect and designer, where he took an artistic approach to product design, creating items that were forward-thinking in both their functionality and technology.

# Charles and Ray Eames



- Charles Ormond Eames, Jr. trained in manufacturing and architecture. He grew up in Missouri, the country's industrial heartland. Bernice Alexandra "Ray" Kaiser trained in painting and sculpting. She began her career in New York, home to the art scene in America.
- Before they applied their pioneering plywood moulding technique to furniture design, the Eameses used it to develop emergency transport splints for injured World War Two soldiers (as well as stretchers and experimental glider shells). The highly functional device was light and cheap to mass manufacture and, being modular, could be conveniently and inexpensively transported-thousands of the innovative, biomorphic designs were produced and shipped to the war zone, today they are frequently collected and displayed as artworks.
- They are most famous for their iconic chairs, which transformed our idea of modern furniture, but this was merely one facet of their work. They were graphic and textile designers, architects and film-makers
- Their mission statement was bold and simple: "We want to make the best for the most for the least."
- Their designs were pleasing and accessible, attractive to young executives, not just artists and intellectuals.
- Charles introduced modernist design to middle America, but it was Ray who softened its hard edges, and gave it mass appeal.
- Their work remains the benchmark for all designers – not just for their aesthetic sense but for their irrepressible joie de vivre. Their mantras work just as well for any area of creativity: notice the ordinary; preserve the ephemeral; don't delegate understanding; explain it to a child.



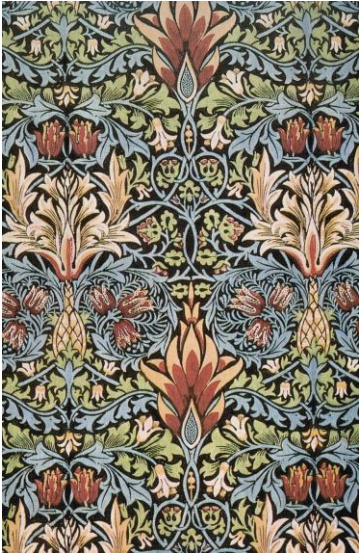
# Marianne Brandt



- She produced numerous designs in quick succession, which are numbered among the icons of "Bauhaus" design, such as her 1924 teapot and sieve.
- From 1926 she was deputy head of the metalworking workshop- she was responsible for collaborative projects with industry.
- For the lighting firm of Körting & Mathiesen she designed numerous lamps which were successfully produced, including, notably, the 1924 hanging ceiling lamp and the 1928 "Kandem" table lamp she designed in collaboration with Hin Bredendieck.
- At the "Bauhaus" metalworking workshop, Marianne Brandt worked with Christian Dell, Hans Przyrembel, and Wilhelm Wagenfeld.
- She had a brief stint working in Walter Gropius' Berlin architecture practice. There she mainly designed furniture for mass production and modular furniture while also working on the interior design of housing in Karlsruhe-Dammerstock.
- Although she was extremely talented and successful at the "Bauhaus", she never managed to establish herself as a self-employed industrial designer

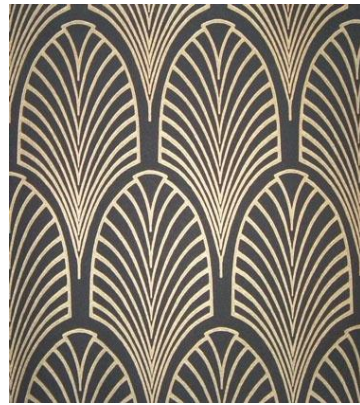


# Arts and Crafts (Early 19<sup>th</sup> century)



- Inspired by socialist principles and led by William Morris, the members of the movement used the medieval system of trades and guilds to set up their own companies to sell their goods. Unfortunately, it had the reverse effect and, apart from the wealthy middle classes, hardly anyone could afford their designs.
- Visually, the style has much in common with its contemporary art nouveau and it played a role in the founding of Bauhaus and modernism.
- Style: handmade; simple forms with little ornamentation; beauty of natural materials; copper and pewter - often with a hammered finish; stylised flowers, allegories from the Bible and literature, upside down hearts, Celtic motifs
- Influences; medieval styles - the Gothic revival led by AN Pugin; socialism - the ideas of John Ruskin and early Marx, especially the dehumanising effects of industrialization; the Orient - the pared-down quality of Japanese art
- the Arts and Crafts movement was in fact comprised of a number of different artistic societies, such as the Exhibition Society, the Arts Workers Guild (set up in 1884), and other craftspeople in both small workshops and large manufacturing companies.
- A feature of the Arts and Crafts movement was that a large proportion of its leading figures had trained as architects- helped develop a collective belief in the importance of designing objects for a 'total' interior: a space in which architecture, furniture, wall decoration, etc. blended in a harmonious whole.
- Most Arts and Crafts designers worked across an unusually wide range of different disciplines: someone could apply craft-based principles to the design of things as varied as armchairs and glassware.
- Arts and Crafts had a significant impact on architecture. Figures including Philip Webb, Edwin Lutyens, Charles Voysey and William Lethaby quietly revolutionised domestic space in buildings that referenced both regional and historical traditions.
- ideas and emphases of the movement: One cannot validly distinguish between fine and applied or decorative arts; the artisan or craftsman should have the same imaginative pleasure and freedom as painters, sculptors, and architects; the Industrial Revolution both greatly damaged popular taste and did much to destroy traditional craft skills; mid-nineteenth century design was by and large dreadful, and artists, sculptors, designers, craftsmen, theorists, and the buying public had work together to remedy this situation; properly designed objects should embody truth to; the role of the craftsman must be appreciated.
- Key names: William Burges, E. W. Godwin, Charles Rennie Macintosh, F. W. Troup, Frank Lloyd Wright, C. F. A. Voysey and William Morris,

# Art Deco (1908-1935)



- Art deco is a design style from the 1920s and 1930s in furniture, decorative arts and architecture characterised by its geometric character
- works exhibit aspects of Cubism, Russian Constructivism and Italian Futurism- with abstraction, distortion, and simplification, particularly geometric shapes and highly intense colours- celebrating the rise of commerce, technology, and speed.
- It was popularly considered to be an elegant style of cool sophistication in architecture and applied arts which range from luxurious objects made from exotic material to mass produced, streamlined items available to a growing middle class.
- Seen in furniture, pottery, textiles, jewellery, glass etc. it was also a notable style of cinema and hotel architecture
- Named after the International Exhibition of Modern Decorative and Industrial Arts held in Paris in 1925
- Style: geometric and angular shapes; chrome, glass, shiny fabrics, mirrors and mirror tiles; stylised images of aeroplanes, cars, cruise liners, skyscrapers; nature motifs - shells, sunrises, flowers; theatrical contrasts - highly polished wood and glossy black lacquer mixed with satin and furs
- Influences: art nouveau - deco kept the nature motifs of its predecessor but discarded its flowing organic shapes and pastels for bolder materials and colours such as chrome and black; cubism -painters such as Picasso were experimenting with space, angles and geometry; early Hollywood - the glamorous world of the silver screen filtered through to design using shiny fabrics, subdued lighting, and mirrors. Cocktail cabinets and smoking paraphernalia became highly fashionable

# Modernism (1860-1970)



- Modernism was generally based on idealism and a utopian vision of human life and society and a belief in progress
- principles that define modernist art: A rejection of history and conservative values (such as realistic depiction of subjects); innovation and experimentation with form (the shapes, colours and lines that make up the work) with a tendency to abstraction; and an emphasis on materials, techniques and processes
- was characterised by the deliberate departure from tradition and the use of innovative forms of expression that distinguish many styles in the arts and literature of the late nineteenth and the twentieth century
- many artists started to make art based in their own, personal experiences and about topics that they chose
- many artists began exploring dreams, symbolism, and personal iconography as avenues for the depiction of their subjective experiences, challenging the notion that art must realistically depict the world, some artists experimented with the expressive use of colour, non-traditional materials, and new techniques and mediums. Among these new mediums was photography, whose invention in 1839 offered radical possibilities for depicting and interpreting the world.



# Streamlining



- Grew out of the Art Deco style, but it was simplified and infused with a sense of dynamism that gave it huge commercial appeal
- The style was as much about economics as aesthetics. The industrial design profession emerged at this time and used streamline design to serve American corporate capitalism.
- Streamlining is the shaping of an object to reduce the amount of resistance it encounters when it travels through a medium like air or water. It occurs in nature: aquatic animals like dolphins are naturally adapted to travel quickly through water.
- An aesthetic style mark, and a symbol of twentieth-century machine-age speed, precision, and efficiency and draw features embodied in all travel and transportation machines
- Products looked up-to-date with clean and simplified silhouettes, sculptural casings and gleaming industrial materials
- Streamlining covered up all the cogs and gears, and presented an image of sleekness and cleanliness. So you could say that streamlined styling romanticised technology, it helped to make it glamorous and user-friendly.

# Post-modernism



- It embraces many different approaches to art making, and may be said to begin with pop art in the 1960s and to embrace much of what followed including conceptual art, neo-expressionism, feminist art, and the Young British Artists of the 1990s
- Post-modernism was born of scepticism and a suspicion of reason. It challenged the notion that there are universal certainties or truths
- Post-modern art drew on philosophy of the mid to late twentieth century, and advocated that individual experience and interpretation of our experience was more concrete than abstract principles
- Post-modernism embraced complex and often contradictory layers of meaning