BERKHAMSTED

SIXTH

# Please get familiar with the specification – own your progress and knowledge

https://www.aqa.org.uk/subjects/design-and-technology/as-and-a-level/design-and-technology-product-design-7552

# You will need to keep up to date and informed about the world around you and how designers, inventors and engineers are improving the world and contributing to sustainability. Here's some helpful resources:

Podcasts/You Tube

Design Museum Everywhere https://designmuseumfoundation.org/program/podcast/

By Design series https://www.soane.org/listen-our-design-series-podcasts

Sustainable futures at the Design Museum https://www.dezeen.com/2010/05/22/podcast-sustainable-futures-at-the-design-museum/

Design Matters https://www.designmattersmedia.com/

99% invisible https://99percentinvisible.org/

Design Soapbox https://podnews.net/podcast/i78r9

Designed for life https://podcasts.apple.com/gb/podcast/designed-for-life/id1528885120

Product Tank https://www.youtube.com/user/producttank

Museum websites

Design museum https://designmuseum.org/

V&A https://www.vam.ac.uk/

Sir Joan Soan's museum https://www.soane.org/exhibitions

Fashion and Textile museum https://www.ftmlondon.org/

Mechanical art and design museum https://themadmuseum.co.uk/

London Transport museum https://www.ltmuseum.co.uk/

Vitra Design Museum https://www.design-museum.de/en/information.html

Thinktank Museum https://www.birminghammuseums.org.uk/thinktank

The *National Museum of Science and Technology* Leonardo Da Vinci of *Milan* https://www.museoscienza.org/en

Other online resources worth looking into:

Dezeen (architecture and design) https://www.dezeen.com/

The Institute of Engineering and Technology https://www.theiet.org/

Inspiring engineering, The Happold Foundation https://www.happoldfoundation.org/

Tomorrow's Engineers https://www.tomorrowsengineers.org.uk/

ICON (Design magazine online) https://www.iconeye.com/design

Institute of making at UCL https://www.instituteofmaking.org.uk/

# Young designers and engineers are changing the world for the better, here's just a couple of examples of how they are doing this

1. Floodproof housing https://www.youtube.com/watch?v=1SM6eZ-QuV8
2. Lettus grow aeroponics to feed the world https://www.youtube.com/watch?v=Pvz-7j3BOMo
3. Renewable energy through hydrogen fuel cells https://www.youtube.com/watch?v=q40h21r6FF8
4. A solution to the problem of single use plastic pollution https://www.youtube.com/watch?v=AHKaChoCDW8

# AQA
# A Level
## Product Design
## 7552
Unit 13
Design methods

2

Design influences, styles and movements

and

**Designers and their work**

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## Design styles and movements

| Content | Potential links with maths and science |
|---|---|
| Students should be aware of, and be able to discuss, key design styles and movements and their principles of design, including:<br>• arts and craft movement<br>• Art Deco<br>• Modernism, eg Bauhaus<br>• Post modernism, eg Memphis. | |

## Designers and their work

| Content | Potential links to maths and science |
|---|---|
| Students should be aware of, and be able to discuss, the work of influential designers and how their work represents the principles of different design movements, including:<br>• Phillipe Starck<br>• James Dyson<br>• Margaret Calvert<br>• Dieter Rams<br>• Charles and Ray Eames<br>• Marianne Brandt. | |

# Objectives – part one

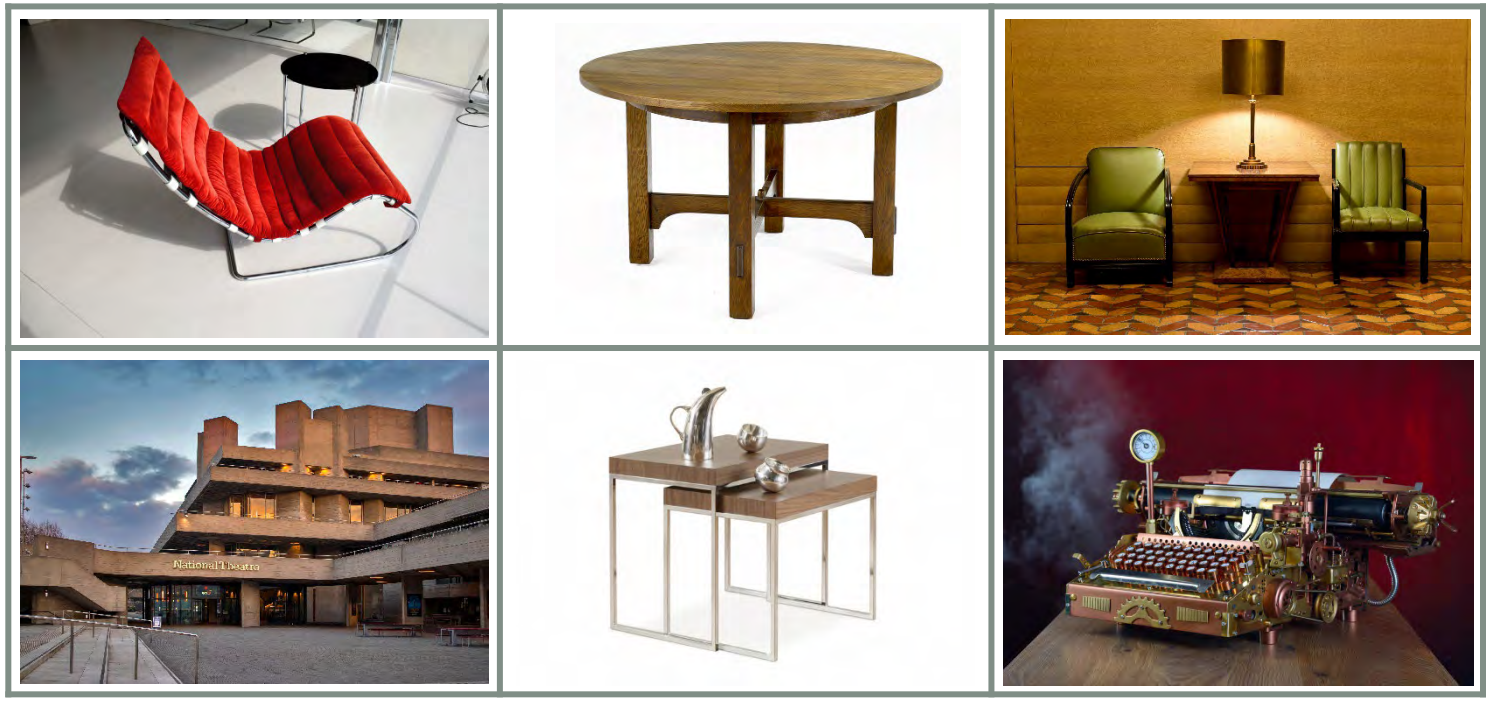
Understand how historical design movements have influenced product design and manufacture

Recognise the key aspects and principles for a range of historical design styles including:

- Art and Crafts
- Art Deco
- Modernism
- Post Modernism

# Consider the styles portrayed by the images

Think about when, who for, why, and also how you feel about them



# Design styles

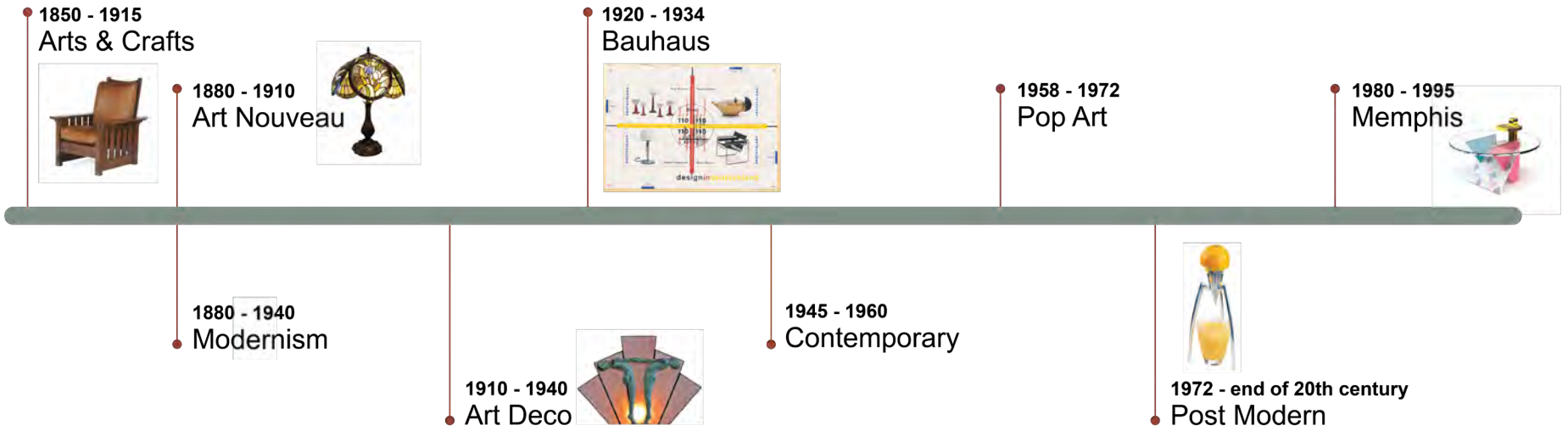
- Many designers and design companies can be recognised by their style
  - Today's styles may have been influenced by any number of historic design movements
  - Designs are often characterised by their date and the materials of the time
  - You need to know about the following:
    - Arts and Crafts
    - Art Deco
    - Modernism, e.g. Bauhaus
    - Post-Modernism, e.g. Memphis

# Design influences

- When analysing products and the work of others you need to consider a number of points
  - What was the norm for that period in time and how does the work in question fit into the style of the day?
  - How does the work compare to their contemporaries?
  - What were the material and manufacturing limitations at the time?
  - What were the social, cultural and political influences?
  - Have any influences of the work permeated into today's work?

# Design movements timeline

- Dates are approximate and vary between sources



# Arts and Crafts (approx. 1850-1915)

- The Arts and Crafts movement celebrated hand made and crafted designs
  - It was a reaction to industrialisation and the mass manufacture of either bland or over ornate products and designs – simple, natural ornamentation and embellishment was key to the style

# Arts and Crafts designers

- Some of the more influential designers include William Morris, Gustav Stickley and latterly, Charles Rennie Mackintosh
- Female designers such as Florence Koehler, Marie Zimmermann and Mary 'May' Morris (William's daughter) were vastly under-valued at the time, which led to May Morris setting up the much needed, Women's Guild of Arts in 1907

# Arts and Crafts characteristics

- Design elements that are commonly found on Arts and Craft designs include:
  - Simple designs with attention to detail
  - Handmade crafted products
  - Use of quality materials
  - Repeated patterns
  - Influences of the Orient, flowers and leaves
  - Classic items include lamps, furniture, wallpaper designs, stained glass and hand carved detail

# Beyond Arts and Crafts

- The latter part of the Arts and Crafts movement is often know as **Art Nouveau**
  - Designs are signified by their use of organic shapes and natural forms
  - Consider how this movement still influential today?

# Art Deco (approx. 1910-1940)

- Art Deco was a fusion of different styles of the early 20th century drawing on influences of Bauhaus, Cubism, Modernism and Art Nouveau
  - The Art Deco style grew in popularity after a famous arts exposition held in Paris in 1925

# Art Deco designers

- Influential designers of this time include
  Maurice Dufrêne, Émile-Jacques Ruhlmann and René Lalique
  - Sort after products include statuettes, lighting products, radios and clocks as well as classic furniture pieces

# Art Deco characteristics

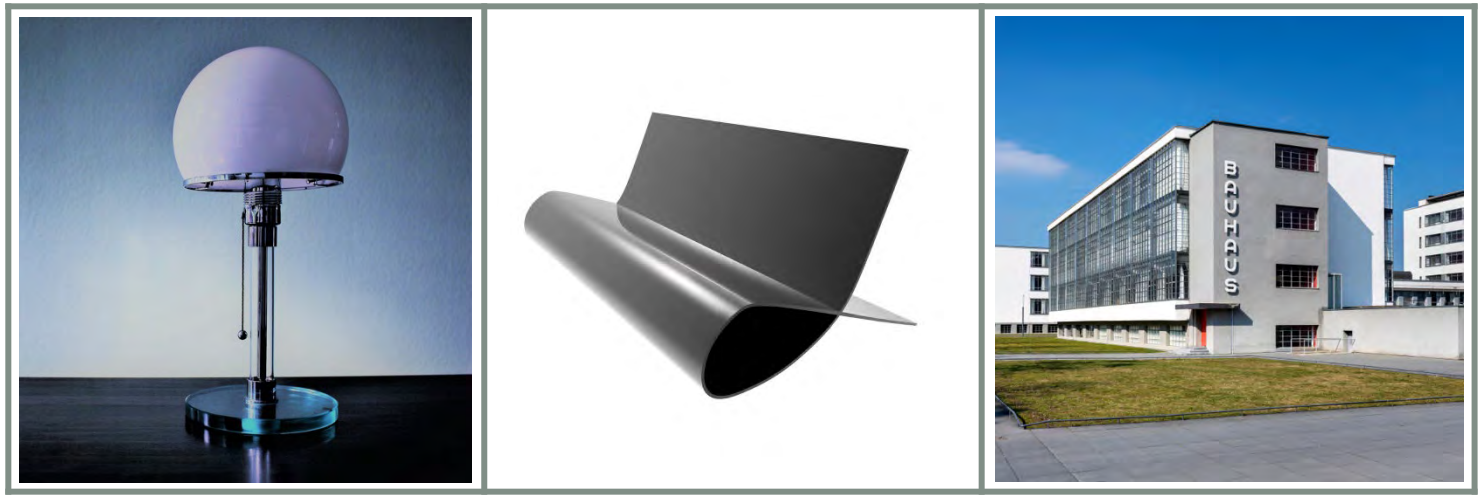
- Products were decorative, elegant and functional
  - Design and architecture was thought to be very modern and helped influence 1920's Hollywood glamour
  - Architectural features include large windows, flat roofs, glass blocks, curved features and ships railings
  - Other details include chevrons, fans and other geometrically symmetrical shapes
  - Name some other common motifs and features associated with Art deco designs

# Art Deco influences

- Art Deco's influences can be seen in many of today's contemporary designs
  - Curved lines combined with straight lines
  - Sleek and streamlined forms
  - Large rigid sections
  - Use of exotic attractive woods
  - Modern looking and functional
  - Elements of primitive art
  - Forms emulating the modern 'machine age' such as ships and cars

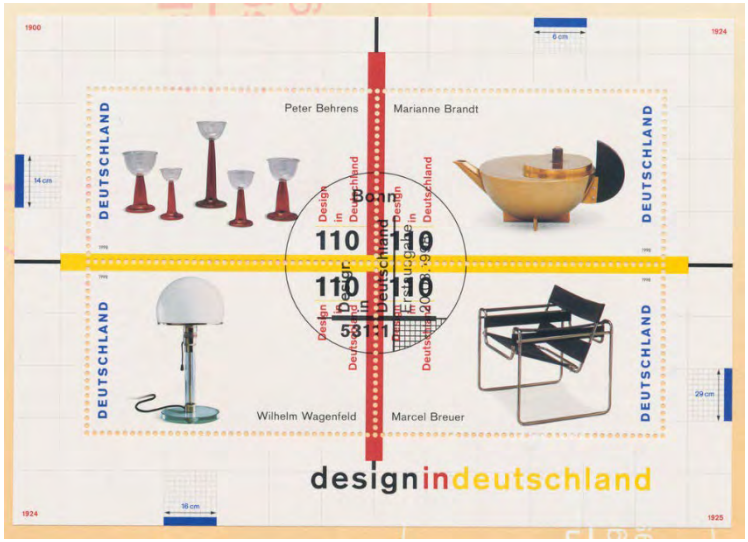
# Modernism (approx. 1880-1940)

- Modernism was very influential in Western society and grew from a re-examination of how we were living in an increasingly industrialised world
  - Modern manufacturing led to new processes and greater availability of materials such as concrete, steel and glass



# The Bauhaus

- The art school, Bauhaus was founded in 1919 in Weimar, Germany by Walter Gropius
  - Bauhaus was very important to Modernism, influencing art, architecture, graphics, interior and industrial design and developed the skill of designers included Peter Behrens, Marcel Breuer, Marianne Brandt and Wilhelm Wagenfeld



# Designers of Modernism

- Prominent modernism designers include:
  - Margarete Schütte-Lihotzky known for designing the first ‘built-in’ kitchen
  - Denham Maclaren, a British furniture designer
  - Alvar Aalto, a Finnish Architect and designer
  - Frank Lloyd Wright, the American architect known for New York’s iconic Solomon R Guggenheim Museum

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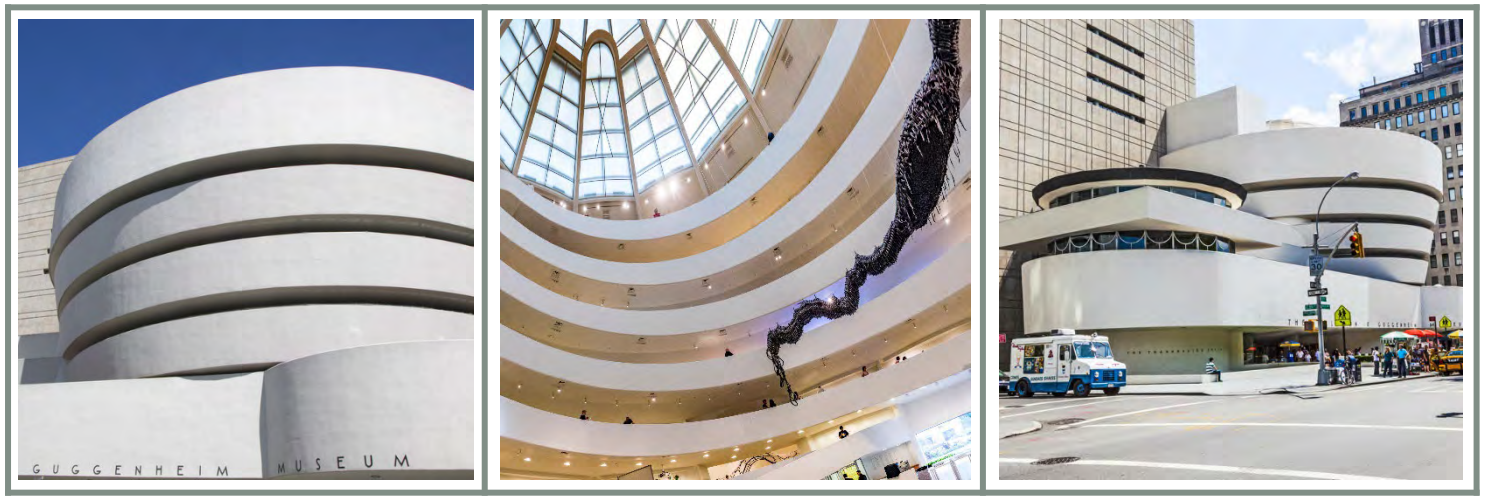
# Modernism’s characteristics

- Most designs are simple non-decorative forms and the principle of ‘form follows function’ is applied
  - Common materials include tubular steel, glass, stainless steel, plywood and concrete
  - Light filled, open plan, functional spaces created in buildings
  - Simple functional designs including modular furniture
  - Neutral colour palette is invariably used

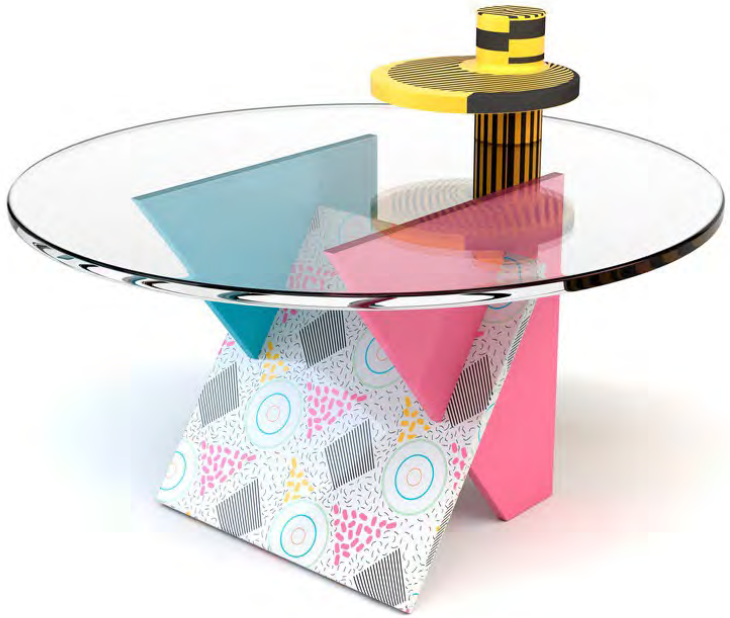
# Form follows function

- The Solomon R Guggenheim Museum, a gallery for modern and contemporary art, opened in 1959 and was designed by Frank Lloyd Wright
  - Consider Modernism's theory of 'form follows function' in relation to the museum space pictured



# Post Modern (approx. 1972 to end 20th century)

- Postmodernism was a reaction to the rather bland and functional designs of the Modernism movement
  - Designs are more eclectic, creative, decorative and emotive
  - Old and new could be seen together, sometimes clashing, creating exciting and provocative pieces that boldly stood out
  - The Memphis movement founded by Ettore Sottsass in 1980 in Milan created furniture and household items which embraced this approach, drawing on Pop Art, Art Deco and anything from 1950s Kitsch



# Post Modern characteristics

- Use of fun over form and function
  - Abstract designs and shapes, with modern processes and materials as seen in ‘The Dancing House’ designed by Vlado Milunić with Frank Gehry, in Prague in 1996

# Postmodernist designers

- Prominent designers of the time included Alessandro Mendini, Paola Navone, Massimo Iosa Ghini and Andrea Branzi
- London’s MI6 building by Sir Terry Farrell is a Postmodernist landmark (1996)

# Question

- Can you match the lamp designs to the design style?

# Objectives – part two

Be able recognise a range of work and know how it can represent different design movements

Be aware of the work of influential designers including:

- 
- 
- 
- 
- 
- 

# Designers and their products

- A designer’s work includes:
  - Problem solving to enhance and improve people’s lives
  - Improving existing products
  - Responding to changes in consumer lifestyle
  - Utilising developments in technology to improve efficiency and the use of products and resources
  - Improving product design to minimise environmental impact through smarter designing and manufacturing
  - Creating a connection between the product and the user

# Philippe Starck born 1949

French product designer and architect

- A prolific and eclectic designer of kitchen appliances, furniture and lighting, through to motorbikes and super yachts
- Stark's flamboyant personality is often reflected in his products as he adds an element of humour to everyday items
- The *Juicy Salif* may be celebrated more for its form over function
- Stark is rumoured to have said *"It's not meant to squeeze lemons, it is meant to start conversations"*

# Starck's style

- Eclectic, fun and humorous with elements of postmodernism
  - Some of his work is based around democratic design, accessible to all, yet other pieces are certainly for the elite
  - Extremely creative and innovative, yet function can follow form a little too much on occasions

# James Dyson born 1947

- Sir James Dyson is a British inventor and founder of the Dyson company
  - His products often have radical new approaches in their design
  - He sees every failure as a vital step towards success
  - It took five years and over 5,000 prototypes before he launched the world's first bagless vacuum cleaner
  - Dyson values the iterative design process and the innovations that can come from continuous development

# Dyson's style

- Modern, contemporary, elegant and simplistic designs
  - Product function and aftercare service are very important
  - James Dyson is an advocate for fostering young British design engineers through the Dyson School of Design Engineering at Imperial College, London
  - Five years and 599 prototypes later the Dyson Supersonic™ dryer was released, having analysed over 1,000 miles of different hair types to fully understand the hair drying process

# Margaret Calvert OBE born 1936

- Graphic designer known for her work on transport fonts and simple pictograms used on UK road signs
  - Calvert and Jock Kinneir created a mix of capitals and lowercase that helps reading at high speed

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# Calvert's style

- Many of the pictograms used on UK road signs define Calvert's simple and easily accessible style
  - Her transport fonts were predominantly sans-serif and the signage that they were used on included carefully coordinated and coloured fonts, backgrounds, shapes and symbols
  - She created the font used for direction signs in UK airports and typeface of her own name was developed for Newcastle's Tyne and Wear Metro system

# Dieter Rams born 1932

- Dieter Rams the German industrial designer became Head of Design at Braun and defined their modern style
  - His aim was to design products to be useful and easy to operate
  - During his 40 years at Braun, he developed hundreds of products
  - Which new materials were utilised in the classic SK4 shown here, by Rams in the 1950s?
  - What led to its nickname 'Snow White's coffin'?

# Rams' style

- Simple user interface with sleek minimal, effortless designs were Ram's hallmark
  - His unfussy style of communication can be seen on many of the products we see and use today
  - Form follows function and influences of the Bauhaus come through in the electronic products that he designed
  - He famously stood up to the idea of obsolescence and introduced the ten principles of good design which had sustainable design at its core

# Consider

- Dieter Ram's ten principles of good design
  - Good design is innovative
  - Good design makes a product useful
  - Good design is aesthetic
  - Good design makes a product understandable
  - Good design is unobtrusive
  - Good design is honest
  - Good design is long lasting
  - Good design is thorough down to the last detail
  - Good design is environmentally friendly
  - Good design is as little design as possible

# Charles and Ray Eames

- Bernice Alexandra ‘Ray’ Kaiser Eames (1912–1988) and Charles Eames Jr (1907–1978) were an influential married team of American industrial designers
  - Best know for utilising steel, fibreglass and shaped plywood to create ergonomic furniture with a modernist aesthetic
  - Their architectural designs include Eames house in California

# Eames' style

- Curvaceous furniture, often with inviting padded leather transformed home loungers and office chairs

# The Eames splint

- In 1942 during WWII the couple won an order to supply the US Navy with plywood leg splints
  - This ground breaking moulded plywood design was based on Charles' own leg
  - By the end of the war it is estimated that 150,000 splints were made
  - The splint was Eames' first mass produced product

# Marianne Brandt 1893 - 1983

- German designer Marianne Brant studied at the Bauhaus and became head of their metal workshop
  - She is best known for creating household objects such as teapots, jugs, tableware and lighting
  - Her teapots are perhaps her most iconic work but were never mass produced as the designs were complex and used silver plated copper, and ebony for the handles

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# Brandt's style

- Classic Bauhaus style of form follows function
  - Her work used clean geometric lines with perfect curves and spheres creating aesthetic yet functional pieces
  - Stainless and chrome steel and muted colours were often used however her later office desk pieces used more vivid colour

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# Your tasks over the summer – this will all be marked

1. Read the presentation, take notes then answer the following exam style questions – over 2 slides. Print out.

**Q1.**

Explain how the Art Deco design style was influenced by:

- Historical design styles
- Socio-economic factors.

**(Total 6 marks)**

**Q2.**

State **four** of Dieter Rams' principles of good design.

1

2

3

4

**(Total 4 marks)**

**Q3.**

**Figures 1** and **2** show two products designed by Dieter Rams.

**Figure 1**

**Figure 2**

Describe how the products shown in **Figures 1** and **2** conform to the principles of modernist design.

**(Total 3 marks)**

**Q4.**

Outline the impact of the work of Charles and Ray Eames on furniture design.

You should refer to specific examples in your answer.

**(Total 6 marks)**

**Q5.**

State **three** characteristics associated with products from the Memphis postmodern design group.

1

2

3

**(Total 3 marks)**

**Q6.**

Explain how the work of Philippe Starck reflects the postmodern design movement.

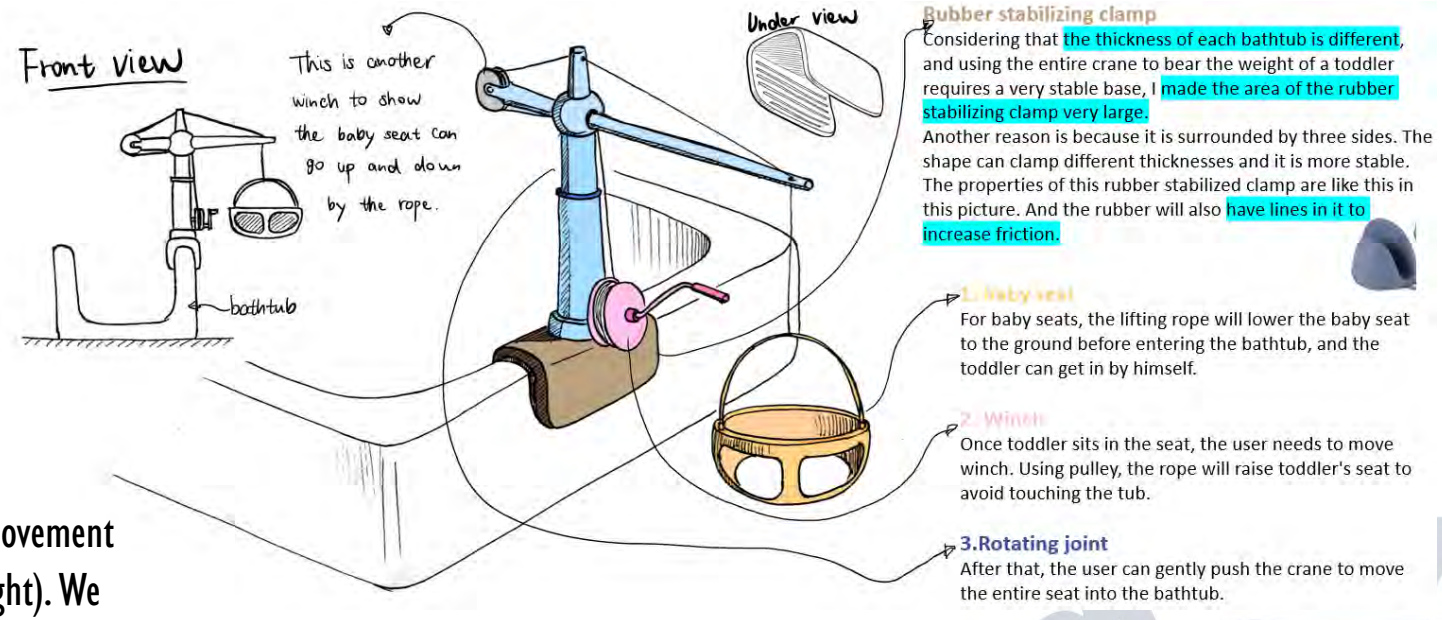
**(Total 6 marks)**

# Your tasks over the summer – this will all be marked

## 2. Design task:

Draw or model (and then take photographs) a product in the style of your favourite movement or designer. Annotate your idea including for material choice. This can be either:

- A piece of garden furniture
- A hairdryer
- A wheelchair with useful accessories




You will be assessed on 3 areas:

1. Creativity/innovation
2. Clarity of communication (including your annotation)
3. How well you have been inspired by your chosen designer/movement

You should have at least 1 A3 sheet to present (example shown right). We would also like to see any development work.

Both Summer tasks must be handed in as hard copies to your teacher for marking.