

PREPARING FOR  
**A LEVEL DESIGN & TECHNOLOGY**



Summer 2020

Essential activities for  
**A LEVEL DESIGN & TECHNOLOGY**



Summer 2020



# Exam board information

Specification – look at the product design section

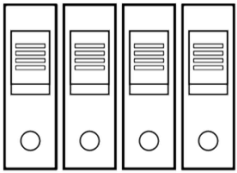
<https://filestore.aqa.org.uk/resources/design-and-technology/specifications/AQA-7552-SP-2017.PDF>

Digital resources for each unit of work

<https://sirwilliamramsay.sharepoint.com/sites/ArtandtechnologysharedResources/Shared%20Documents/Forms/AllItems.aspx?newTargetListUrl=%2Fsites%2FArtandtechnologysharedResources%2FShared%20Documents&viewpath=%2Fsites%2FArtandtechnologysharedResources%2FShared%20Documents%2FForms%2FAllItems%2Easpx&viewid=59bd95df%2D7546%2D4383%2D81de%2D6728340fbe9a&id=%2Fsites%2FArtandtechnologysharedResources%2FShared%20Documents%2FTechnology%2F1%20%2D%20Product%20Design%20Schemes%20%26%20Resources%2FKS5%2FPG%20Online>

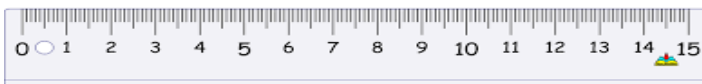
No need to print: you will be provided with printed versions in September





# Be organised for September start

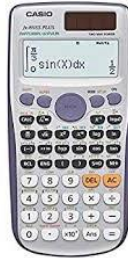
## Essential



A4 lever arch file



A4 sketch pad  
Tiger/The Range are good value.



## Optional but useful to have:



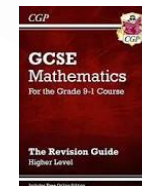
Small selection of render markers; you might like to wait until you've tried them in school first. The Range/ The Works are good sources of these but they are expensive so you only need a small selection.



Fineliner



Good quality eraser



Keep any GCSE Maths/D&T revision books for reference.





# Investigating...

TASK FOR YOU TO COMPLETE

Investigate the work of a designer **and** a Design movement of your choice.

What are their most significant products? What made their products more desirable than preceding products? What influenced them? What are they doing now? How have they influenced their design genre and other genres in their time?

This case study should be presented in a creative manner of your choice using images and annotation to describe, explain and evaluate.

Using your research, create your own designs for everyday products that are influenced by the design style of your chosen designer.

- Phillipe Starck • James Dyson • Margaret Calvert • Dieter Rams • Charles and Ray Eames • Marianne Brandt.
- arts and craft movement • Art Deco • Modernism, eg Bauhaus • Post modernism, eg Memphis

Useful links:

<https://designmuseum.org/designers>





# Try an exam question...

**TASK FOR YOU TO COMPLETE**

1 3 Compare the two radios shown in Figures 5 and 6.

In your answer you should refer to developments in:

- microelectronics
- materials.

[12 marks]

Figure 5



Figure 6



	Figure 5 Fabricated plywood valve radio (1950s)	Figure 6 Injection moulded digital radio (2015)
Button/control material	Thermoset polymer	TPE
Electronics	Thermionic valves	Integrated circuits
Main casing material	Fabricated plywood	Injection moulded thermoplastic
Information display	No display	LCD screen

## TIPS

- This question requires an answer in essay form which assesses the differences and similarities of the two radios.
- Have the products influenced (impact) other developments/products?
- The answer should seek to identify/expand on specific materials and components used and why?
- Hand write on lined paper just as you would in the A level exam.
- 12 marks = name six point and explain six points





# Designing...

## TASK FOR YOU TO COMPLETE

### Context

#### Isolation/Lockdown

Using your own and other's experience of current times identify a need/want problem and create a solution to solve the problem.

1. **Analyse the context** using

WHO, WHAT, WHERE, WHY, WHEN AND HOW.

2. **Identify and investigate** genuine problems, issues, needs or difficulties based on your context analysis. What research information might be useful? Present what you collect succinctly.

3. **Produce hazy ideas**

Sketch first ideas for possible solutions; quick sketches are idea for this with some labelling to identify key features.

4. **Develop ideas**

Using client feedback, inspiration images, SCAMPER, further research information or other methods develop at least two of the first ideas in more detail. Add annotation to identify, explain and evaluate.

5. **Present final design.**

Use basic physical modelling (take photos), presentation standard drawings and detailed annotation to identify, explain, give examples (materials etc.) and justify your designing.

### Submission

Work can be presented in any manner of your choice; hand drawn, use of ICT or a mix of both to suit.

See recommended activities for CAD available to you.



Recommended activities for  
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## Watch these...

### **How to Make – New Series BBC 4**

Thursdays BBC Four 8PM or catch up on iplayer.

<https://www.bbc.co.uk/programmes/m000gwzg>

### **Soup cans and superstars BBC iplayer.**

Pop Art and its influence on the wider world.

<https://www.bbc.co.uk/programmes/b067ftp7>

### **Bauhaus 100 BBC iplayer**

The story of the design school and its influence on the world.

<https://www.bbc.co.uk/iplayer/episode/m0007trf/bauhaus-100>

### **Rams; principles of good design Vimeo**

[https://vimeo.com/304626830?fbclid=IwAR0Fpw\\_FKbVLDPKireqhpgXs1N1U8xE0lvmzGFxNaGUEEjlgKqUb9SaAVg](https://vimeo.com/304626830?fbclid=IwAR0Fpw_FKbVLDPKireqhpgXs1N1U8xE0lvmzGFxNaGUEEjlgKqUb9SaAVg)

### **First Secret of Good Design – TED talk**

<https://www.youtube.com/watch?v=9uOMectkCCs>

### **Biomimicry Design – TED talk**

[https://www.youtube.com/watch?v=k\\_GFq12w5WU](https://www.youtube.com/watch?v=k_GFq12w5WU)

### **Abstract: The Art of Design - Netflix**

<https://www.netflix.com/gb/title/80057883>





## Try these...

### **Design in a nutshell**

Design era talks plus try the quiz to find out which designer your design thinking is similar to.

[http://www2.open.ac.uk/openlearn/design\\_nutshell/](http://www2.open.ac.uk/openlearn/design_nutshell/)

### **Sketch-a-day**

Spencer Nugent developing sketching skills

[https://www.youtube.com/channel/UCBtSgEZk914z5InEs\\_U2J3w](https://www.youtube.com/channel/UCBtSgEZk914z5InEs_U2J3w)

### **Design Ventura Mini Challenge**

<https://ventura.designmuseum.org/2020/03/30/design-ventura-online-mini-challenge/>

### **Virtual Museums**

#### **V&A London**

Take a trip through their collections

<https://www.vam.ac.uk/collections?type=featured>

#### **Design Museum**

Digital Museum content

<https://designmuseum.org/digital-design-calendar>

Design information

<https://designmuseum.org/design>

Designers information

<https://designmuseum.org/designers>





# Try these...

## 2Design V3 – free home license

Continue to play with 2D design skills using **2D design Version 3**

As we have a the school license for this software our supplier has kindly allowed us to provide home licenses for students free of charge until the end of May as per the following instructions.

### To get started straight away:

Download the software from the following web link:

[www.techsoft.co.uk/DesignV3Download](http://www.techsoft.co.uk/DesignV3Download)

When the software has been installed and you run it for the first time, it will ask for an activation key, your individual activation key is:

**1020 JLJP 5YYD UPJK M96N**

Activations using this licence will expire at the end of May 2020 but will be under review. You can find more details on our website about the terms of this licence at [www.techsoft.co.uk/coronavirus](http://www.techsoft.co.uk/coronavirus)

## Autodesk Fusion 360 – free to use at home and school

This is like Inventor but more powerful as its cloud based and lots more tools. It is free to download here:

<https://knowledge.autodesk.com/support/fusion-360/troubleshooting/caas/sfdcarticles/sfdcarticles/How-to-activate-start-up-or-educational-licensing-for-Fusion-360.html%20>

Use your school email account and Coundon Court as the educational establishment.

Useful tutorials to try at home:

[https://warwick.ac.uk/fac/sci/wmg/about/outreach/resources/fusion\\_tutorials/](https://warwick.ac.uk/fac/sci/wmg/about/outreach/resources/fusion_tutorials/)





Listen to these...

### **50 things that made the modern economy.**

Series of podcasts about all sorts of products that have changed the way we live; some surprising choices.

<https://www.bbc.co.uk/programmes/b08k9pv0>

### **30 animals that made us smarter**

Series of podcasts about how studying animals and biomimicry has helped humans develop new products.

<https://www.bbc.co.uk/programmes/w13xttw7/episodes/downloads>



Optional activities for  
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# Quick design thinking activities

#thinkdo activities

<http://www.julieboyd.co.uk/free-resources/thinkdo-cards/thinkdo-quick-activities/>

Techdoodle activities

<http://www.julieboyd.co.uk/free-resources/techdoodle-resources.html>





## Other reading online

Design Week Magazine Online

<https://www.designweek.co.uk/>

Make Magazine Online

<https://makezine.com/tag/uk/>

Science Focus online – links to materials and technology developments.

<https://www.sciencefocus.com/>





## Wider reading books

Materials for Design Chris Lefteri ISBN978-1-78067-344-8

Making IT Manufacturing Techniques for PD Chris Lefteri ISBN 978-1-85669-749-1

The Pocket Universal Principles of Design: William Liddell ISBN: 978-1631590405

The Pocket Universal Methods of Design: Hannington & Martin ISBN: 978-1631593741







# Course related textbooks



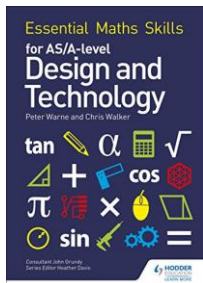
Full A Level Textbook – expensive and not directly for our specification but could be a useful resource.

[https://www.amazon.co.uk/AQA-AS-Level-Design-Technology/dp/1510414088/ref=sr\\_1\\_1?crid=2YQHELNJ1Z7CC&dchild=1&keywords=design+and+technology+a+level&qid=15861](https://www.amazon.co.uk/AQA-AS-Level-Design-Technology/dp/1510414088/ref=sr_1_1?crid=2YQHELNJ1Z7CC&dchild=1&keywords=design+and+technology+a+level&qid=15861)



Revision Guide – cheaper than the full textbook but succinct and to the point support.

[https://www.amazon.co.uk/My-Revision-Notes-Technology-Product-ebook/dp/B07FCX7SH8/ref=pd\\_sbsd\\_14\\_1/259-9388548-9027630?encoding=UTF8&pd\\_rd\\_i=B07FCX7SH8&pd\\_rd\\_r=8b0058ff-76bd-460f-bbb0-e20bcd53e83b&pd\\_rd\\_w=DsfNU&pd\\_rd\\_wg=0tqKx&pf\\_rd\\_p=6325e962-1fe3-4877-92b0-6ec523db95c5&pf\\_rd\\_r=KQB9A4B2NTV10JSA5NTJ&psc=1&refRID=KQB9A4B2NTV10JSA5NTJ](https://www.amazon.co.uk/My-Revision-Notes-Technology-Product-ebook/dp/B07FCX7SH8/ref=pd_sbsd_14_1/259-9388548-9027630?encoding=UTF8&pd_rd_i=B07FCX7SH8&pd_rd_r=8b0058ff-76bd-460f-bbb0-e20bcd53e83b&pd_rd_w=DsfNU&pd_rd_wg=0tqKx&pf_rd_p=6325e962-1fe3-4877-92b0-6ec523db95c5&pf_rd_r=KQB9A4B2NTV10JSA5NTJ&psc=1&refRID=KQB9A4B2NTV10JSA5NTJ)



Maths for D&T A Level – Support for the Maths content.

[https://www.amazon.co.uk/Essential-Maths-Skills-Design-Technology/dp/1510417060/ref=sr\\_1\\_4?crid=2YQHELNJ1Z7CC&dchild=1&keywords=design+and+technology+a+level&qid=1586177928&sprefix=design+and+technology+%2Caps%2C155&sr=8-4](https://www.amazon.co.uk/Essential-Maths-Skills-Design-Technology/dp/1510417060/ref=sr_1_4?crid=2YQHELNJ1Z7CC&dchild=1&keywords=design+and+technology+a+level&qid=1586177928&sprefix=design+and+technology+%2Caps%2C155&sr=8-4)

Purchase is **not** mandatory.

