

Y11 GCSE Design and Technology Unit 1 exam

Key dates

Unit 1 (External assessed written exam, worth 50% of overall grade) **June 19th 2023**

Revision list for GCSE Design and Technology Unit 1 exam

When answering questions please ensure you READ the whole question and look at how many marks each question is worth.

Topics to Revise

Revision Focus	Explanation / definition	Key language	Links
1. Design and aesthetics	The effect of design on appearance and attraction	Appearance, looks, style, colour	https://www.bbc.co.uk/bitesize/guides/z42j2nb/revision/4
2. Design and ergonomics	The development of design to support the body, referring to shape and comfort, ease of use	Shape, body alignment	https://www.bbc.co.uk/bitesize/guides/z42j2nb/revision/3
3. Use of anthropometric data	The use of body size data to establish design appropriate for the majority of people	Sizes, dimensions relevant to body contact with product	https://www.bbc.co.uk/bitesize/guides/z42j2nb/revision/3
4. Thermo and thermosetting plastics	Two categories of polymer	Polymers, recyclable, non-recyclable	https://www.bbc.co.uk/bitesize/guides/zf848mn/revision/1
5. Metals and alloys	Categories of metals, naturally found and man made	Pure ores, mixed metals, ferrous, non-ferrous	https://www.bbc.co.uk/bitesize/guides/zm3f3k7/revision/1 https://www.bbc.co.uk/bitesize/guides/z6byb82/revision/4
6. Composite materials	Materials made from 2 or more other materials to enhance their properties	GRP, CRP, fibre, particle, resin, concrete, manufactured board	https://www.bbc.co.uk/bitesize/guides/znbcj6/revision/1 https://www.bbc.co.uk/bitesize/guides/znbcj6/revision/2
7. Materials working properties	The way in which a materials responds to use, stress, force, weather etc	Strength, toughness, ductility, malleability, elasticity, conductivity	https://www.bbc.co.uk/bitesize/guides/z6byb82/revision/1

8. Production scales	Numbers of products made in one given time.	One-off, batch, mass, continuous, JIT	https://www.bbc.co.uk/bitesize/guides/zd_tmtv4/revision/5
9. Quality assurance (use of jigs)	Process to ensure well made, effective products whereby a number are being made that should be the same.	Control, assurance, jogs, automation, system	https://www.bbc.co.uk/bitesize/guides/z6_cbcj6/revision/2
10. Converting metric measurements, finding area	Changing measurements into other measurements. Mathematically finding the area a product needs.	Metres Centimetres Millimetres, scale area, volume, diameter, radius, circumference	https://www.bbc.co.uk/bitesize/guides/z6_cbcj6/revision/1
11. Sustainability in design and manufacture	Design that does not have a negative impact on the environment or society	6Rs reuse refuse rethink recycle repair, reduce carbon footprint, damage,	https://www.bbc.co.uk/bitesize/guides/zd_tmtv4/revision/2 https://www.bbc.co.uk/bitesize/guides/zd_tmtv4/revision/6
12. Forestry management	Controlled growth and felling of timber to maintain wood stocks	Trees, felling, timber, wood, seasoning, sawmill, section, engineered wood, deciduous, coniferous, manufactured	https://technologystudent.com/prddes1/susenv1.html#:~:text=A%20sustainable%20forest%20is%20a,carfully%20and%20skillfully%20managed%20system.
13. Alternative Energy	Energy produced from sources other than fossil fuels	Wind turbine, solar panel, hydro-electric, wave turbine, electricity	https://www.bbc.co.uk/bitesize/guides/z7_shsrd/revision/3
14. New and emerging technology	More innovative, new ways of manufacturing or producing and working with materials.	CAD CAM, composite, automation, robotics, circular economy	https://www.bbc.co.uk/bitesize/guides/zd_tmtv4/revision/1
15. Marking out and managing waste	Manufacturing processes to minimise waste and reduce costs	Tessellation, marking out,	https://www.bbc.co.uk/bitesize/guides/z6_cbcj6/revision/4
16. Mechanisms (gears) and mechanical motion	Movement created by mechanical systems such as gears.	Gears, cam, shaft, crank slider, bevel gear, teeth,	https://www.bbc.co.uk/bitesize/guides/zd_hxh39/revision/1 Whole section

17. Loads and impact on products	Study of forces and pressure, how it applies to products and structures, how design can make it easier to manage these.	Mass, force, volume, stress, torsion, tension, compression,	https://www.bbc.co.uk/bitesize/guides/zktmtv4/revision/2
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Revision resources

There are several options for **revision resources**:

1. Log on to Teams GCSE DT where you will find every revision lesson and more resources.
2. Use class notes and class handouts.
3. Revision Guide (available to purchase from school)
4. <https://www.technologystudent.com/>
5. <https://www.youtube.com/@vincentryan309> – producer of Technology Student.com YouTube channel
6. <https://www.bbc.co.uk/bitesize/examspecs/zdvvb2sg> GCSE Bitesize for the OCR syllabus

Revision sessions

Wednesday 10th May 2:45pm -3:30pm

Wednesday 17th May 2:45pm -3:30pm

Wednesday 24th May 2:45pm - 3:30pm

Revision sessions will focus on:

- Command words- how to identify and understand them.
- How to successfully answer extended questions
- Exam technique
- Revision tips.