

DT1 Technology, energy and new materials



Personal learning checklist | 1 of 2

AQA GCSE Design and Technology 8552 | Written examination · Shared theory and skills

Name _____ Class _____ Date _____

Tick one box for each statement. Red: need help. Amber: partly confident.
Green: can do independently.

Use your taught examples and supervised practical evidence. Quick checks support concepts; design and making need demonstration and judgement.

I can	Red	Amber	Green
Industry and enterprise			
Explain how automation changes accuracy, jobs, investment and maintenance.	☐	☐	☐
Compare technology push with market pull using a product example.	☐	☐	☐
Evaluate crowdfunding, online retail and co-operative enterprise.	☐	☐	☐
Investigate inclusive design and fair producer treatment using evidence.	☐	☐	☐
Compare lean, flexible and just-in-time production and their risks.	☐	☐	☐
Evaluate planned obsolescence and responsible resource use.	☐	☐	☐
Energy generation and storage			
Compare fossil-fuel and nuclear generation, including emissions and waste.	☐	☐	☐
Explain wind, solar, hydroelectric and tidal conversion and limitations.	☐	☐	☐
Evaluate biomass using regrowth, land use, processing and transport.	☐	☐	☐
Distinguish energy sources, conversion devices and stores.	☐	☐	☐
Explain thermal generation, pumped storage, flywheels and alkaline cells.	☐	☐	☐
Select primary or secondary cells for a portable product.	☐	☐	☐
Justify mains or battery power using demand, runtime and safety.	☐	☐	☐

My next revision priority _____

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Developments in materials			
Explain thermochromic, photochromic and shape-memory responses.	☐	☐	☐
Select a modern material using evidence of its useful properties.	☐	☐	☐
Evaluate titanium, nanomaterials, aramid fibres and microencapsulation.	☐	☐	☐
Explain how composite constituents and orientation affect performance.	☐	☐	☐
Evaluate technical textiles for function, durability and care.	☐	☐	☐

My next revision priority _____