

DT3 Materials, sustainability and production



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
Material families and properties			
Distinguish physical properties, strength, stiffness, hardness and toughness.	☐	☐	☐
Explain absorbency, density, fusibility and thermal/electrical conductivity.	☐	☐	☐
Explain malleability, ductility and elastic versus plastic deformation.	☐	☐	☐
Compare paper and board structures and suitable applications.	☐	☐	☐
Classify natural timbers and manufactured boards accurately.	☐	☐	☐
Compare ferrous, non-ferrous and alloy properties for products.	☐	☐	☐
Compare thermoplastics and thermosets with suitable examples.	☐	☐	☐
Compare fibre sources and woven, knitted and non-woven structures.	☐	☐	☐

My next revision priority _____

DT3 Materials, sustainability and production



Personal learning checklist | 2 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
Selection and environmental impact			
Justify material selection using functional, ethical and economic criteria.	☐	☐	☐
Identify tension, compression, bending, torsion and shear in a product.	☐	☐	☐
Explain lamination, folds, ribs, webbing and interfacing as reinforcement.	☐	☐	☐
Apply all six Rs to a product life cycle.	☐	☐	☐
Compare whole-life environmental impacts with stated evidence and uncertainty.	☐	☐	☐
Evaluate sourcing, worker welfare and traceable forest certification.	☐	☐	☐
Production and quality			
Select standard stock and compatible components for a cutting plan.	☐	☐	☐
Compare one-off, prototype, batch, mass and continuous production.	☐	☐	☐
Use datums, templates, patterns, jigs and stops accurately.	☐	☐	☐
Distinguish quality control from quality assurance with measurable examples.	☐	☐	☐
Calculate allowable dimensions and plan efficient material use.	☐	☐	☐

My next revision priority _____