

DULWICH COLLEGE | SINGAPORE |



Design and Technology: Start of Year 10 Information

AQA Design and Technology (Course Code: 8552)

Starting in Year 10 (or during Year 9)

Welcome to Design and Technology at DCSG. If you have any questions, please email Miss Booth the Head of Design and Technology (rachel.booth@dulwich.org)

Areas covered during Year 9:

Year	Michaelmas Term	Lent Term	Trinity Term
9	<p>Introduction to the course. Workshop Health & Safety. Assessing levels of existing D&T Knowledge.</p> <p>Core and Specialist Technical Principles with theoretical content and application of:</p> <ul style="list-style-type: none"> • Papers and Boards • Electronic systems and Plastics • The Work of Others • Design Strategies • Communication of design ideas. 	<p>Core and Specialist Technical Principles with theoretical content and application of:</p> <ul style="list-style-type: none"> • Mechanisms and Metals • Textiles • Smart and modern materials including composites • The Work of Others • Design Strategies • Communication of design ideas. 	<p>Core and Specialist Technical Principles with theoretical content and application of:</p> <ul style="list-style-type: none"> • Timbers • Environmental impact of Materials • The Work of Others • Design Strategies • Communication of design ideas.

Topics covered include:

Specialist Technical Principles	Core Technical Principles
<ul style="list-style-type: none"> • selection of materials or components • forces and stresses • ecological and social footprint • sources and origins • using and working with materials • stock forms, types and sizes • scales of production • specialist techniques and processes • surface treatments and finishes. 	<ul style="list-style-type: none"> • new and emerging technologies • energy generation and storage • developments in new materials • systems approach to designing • mechanical devices • materials and their working properties

Work to complete before you arrive (optional):

The properties of materials and how they act under forces

Sources, stock forms and finishes of materials

Ways of joining materials

The work of other designers

Sketching and drawing in 3D isometric and perspective

3D CAD Drawing using Adobe Fusion 360 or OnShape (free online 3D CAD software)

Additional resources

<https://www.bbc.co.uk/bitesize/examspecs/zby2bdm>

https://youtu.be/SZ_bF7KnWQg?si=LHMzqPHCSPsf0ViL

<https://www.autodesk.com/products/fusion-360/education>

<https://youtu.be/WKb3mRkgTgw?si=hFiegd5P4VBo5VL7>