



## CIE IGCSE Design Technology – 2 Year Curriculum overview

Year 10 Term 1 Aug-Oct	Year 10 Term 2 Oct-Dec	Year 10 Term 3 Jan-April	Year 10 Term 4 April-July	Year 11 Term 1&2	Year 11 Term 3 Jan-April
<b>Component 2 - Design Brief, Research and Specification</b>	<b>Component - 2 Design and Development</b>	<b>Component 2 - Design and Development</b>	<b>Paper 5 - Technical Drawing Techniques</b>	<b>Component 2 - Manufacturing</b>	<b>Component 2 - Manufacture and Evaluation</b>
<p>Summary</p> <p>This is a Component 2 (Coursework/project work) term, where students are deciding on what project they are going to be doing. They generate their design brief, analyse the task, conduct</p>	<p>Summary</p> <p>This is mostly a Component 2 (Coursework/project work) term, where students are generating ideas for their product and also developing their branding. By the end of december, I would</p>	<p>Summary</p> <p>This is a Component 2 (Coursework/project work) term, where students are generating and developing their ideas. Products and Logos have been completed at this stage so the main focus is on the</p>	<p>Summary</p> <p>This is a Paper 5 term, where students are learning the various technical drawing skills and also the materials, manufacture and knowledge for the exam. Paper 5 is the Graphic Products</p>	<p>Summary</p> <p>This is a Component 2 (Coursework/project work) term, where students are generating and developing their ideas. They are also manufacturing their components. The main focus is on the</p>	<p>Summary</p> <p>This is a Component 2 (Coursework/project work) term, where students completing their makes and evaluating their products.</p> <p>The Component 2 deadline is the end of</p>

<p>research and generate a specification.</p> <p>Content Covered:</p> <p>Project Introduction Design Brief, Client and User Group Mood Board research Questionnaire Interview with Client Materials Research Specification</p>	<p>expect all students to have completed their project up to and including their final logo.</p> <p>4 weeks of this term is dedicated to Paper 1, the design exam. The knowledge and skills required to answer the paper are learnt through the coursework/project work. Students are taught techniques and strategies on how to answer the paper successfully.</p> <p>Content Covered Component 2:</p> <p>Product (Bottle/Confectionary) Design Product Modelling Product Final Design Logo Design Logo Development</p>	<p>packaging and graphics.</p> <p>Content Covered:</p> <p>Packing Ideas Packaging nets Packaging models Packaging Final Design Packaging Graphics Ideas Packaging Graphics Development Packaging Final Design</p>	<p>option and the final exam is 1 hour long.</p> <p>Content Covered:</p> <p>Orthographic Drawing Isometric Drawing Perspective Drawing Planometric Drawing Sectional Views Exploded Views Assembly Drawings Ellipses and Isometric circles Enlarging and Reducing Reprographics Materials Paper 5 Practice Questions</p>	<p>design and manufacture of the POS.</p> <p>Content Covered:</p> <p>POS Design CAD development POS Manufacture Schedule Making: Bottle/confectionary Making: Packaging Making: POS</p>	<p>March. Any remaining time is focussed on revision. Re - looking at Paper 1 and practising Isometric, Orthographic and Perspective drawing.</p> <p>Content Covered:</p> <p>Manufacture Schedule Making: Bottle/confectionary Making: Packaging Making: POS Evaluation</p>
--	--	---	--	---	---

	<p>Logo Final Design</p> <p>Content Covered Paper 1:</p> <p>Section A - Specification (4) Section B - Part Manufacture (4) Section C - Ideas (12) Section D - Evaluation (8) Section E - Final Design (12) Section F - Materials (4) Section G - Manufacture (6) Total: (50)</p> <p>Paper 1 timings Paper 1 Techniques Paper 1 Practice</p>				
<p><b>Domains:</b> Design, Make, Evaluate and Technical knowledge</p>	<p><b>Domains:</b> Design, Make, Evaluate and Technical knowledge</p>	<p><b>Domains:</b> Design, Make, Evaluate and Technical knowledge</p>	<p><b>Domains:</b> Design, Make, Evaluate and Technical knowledge</p>	<p><b>Domains:</b> Design, Make, Evaluate and Technical knowledge</p>	<p><b>Domains:</b> Design, Make, Evaluate and Technical knowledge</p>

<b>COMMUNICATION SKILLS</b> Google Slide portfolio, Google Image Search, Google Sheets	Sketching and Drawing, Sketchbook or Photoshop	Net development, Isometric drawing, Choice of Graphic Software (Sketchbook/PPT/Phot oshop)	Drawing Skills as mentioned above	Perspective drawing, CAD software (Google Sketchup, Fusion 360, Tinkercad)	Portfolio is completed. Formatting.
<b>CONCEPTS</b> Materials testing. Could include a range of hand tools.	Modelling in styrofoam using hand tools and/or Lathe	Paper/Card Modelling	None	Workshop Tools. Students select their own tools and materials. Typically the laser cutter is used by most and 3D printing. Reprographics for packaging.	Workshop Tools. Students select their own tools and materials. Typically the laser cutter is used by most and 3D printing. Reprographics for packaging.

**The theory content is supported by a range of practical activities that help to reinforce the knowledge and skills required to follow Component 2 - Contextual Challenge**

<b>Assessment Opportunities:</b> All work assessed against Assessment Objectives, CAIE Design Technology (0445). Syllabus for exams 2024 - 2026. Theoretical content assessed through formative and summative methods. <a href="#">Specification</a>	<b>Assessment Opportunities:</b> All work assessed against Assessment Objectives, CAIE Design Technology (0445). Syllabus for exams 2024 - 2026. Theoretical content assessed through formative and summative methods. <a href="#">Specification</a>	<b>Assessment Opportunities:</b> All work assessed against Assessment Objectives, CAIE Design Technology (0445). Syllabus for exams 2024 - 2026. Theoretical content assessed through formative and summative methods. <a href="#">Specification</a>	<b>Assessment Opportunities:</b> All work assessed against Assessment Objectives, CAIE Design Technology (0445). Syllabus for exams 2024 - 2026. Theoretical content assessed through formative and summative methods. <a href="#">Specification</a>	<b>Assessment Opportunities:</b> All work assessed against Assessment Objectives, CAIE Design Technology (0445). Syllabus for exams 2024 - 2026. Theoretical content assessed through formative and summative methods. <a href="#">Specification</a>	<b>Assessment Opportunities:</b> All work assessed against Assessment Objectives, CAIE Design Technology (0445). Syllabus for exams 2024 - 2026. Theoretical content assessed through formative and summative methods. <a href="#">Specification</a>
---	---	---	---	---	---

<p>Component 2: Criterion 1 (5) Criterion 2 (10) (pages 34 and 35 of the specification)</p>	<p>Component 2: Criterion 3 (20) Criterion 4 (15) (pages 35 and 36 of the specification)</p> <p>Practice papers <a href="#">Paper 1 Mark Scheme</a> - The mark scheme is the same every year.</p>	<p>Component 2: Criterion 3 (20) Criterion 4 (15) (pages 35 and 36 of the specification)</p>	<p>Practice papers Practice questions <a href="#">Paper 5 Example MS.</a> This paper mark scheme changes from year to year, but has the same format.</p>	<p>Component 2: Criterion 3 (20) Criterion 4 (15) Criterion 5 (10) Criterion 6 (30) (pages 35 to 37 of the specification)</p>	<p>Component 2: Criterion 5 (10) Criterion 6 (30) Criterion 7 (10) (pages 36 to 38) of the specification)</p>
<p><b>Opportunities for developing the 5Cs</b></p> <p><b>Creativity:</b> Mathematical application, selection of a creative project, project theming and formatting, mood board creation as stimulation, creative questionnaire development.</p> <p><b>Confidence:</b> Developing subject knowledge, understanding the design process</p> <p><b>Compassion:</b> Assisting others, making informed choices about design and considering others, encouraging classmates,</p>	<p><b>Opportunities for developing the 5Cs</b></p> <p><b>Creativity:</b> Drawing, Sketching, Design, Expression of ideas, structuring of thought processes, developing vision and spatial awareness. Developing a unique product, Response to Paper 1, offering creative solutions, communicating ideas clearly and imaginatively.</p> <p><b>Confidence:</b> Leading discussions, offering</p> <p><b>Confidence:</b> Developing subject knowledge, developing a better understanding of Paper 1,</p>	<p><b>Opportunities for developing the 5Cs</b></p> <p><b>Creativity:</b> Drawing, Sketching, Design, Expression of ideas, structuring of thought processes, developing vision and spatial awareness. Using materials in an innovative way. Developing a unique product,</p> <p><b>Confidence:</b> Developing confidence in practical making ability, making constructive criticism or judgements about the work of others, developing surety in the use of tools and materials.</p>	<p><b>Opportunities for developing the 5Cs</b></p> <p><b>Creativity:</b> Mathematical application</p> <p><b>Confidence:</b> Developing subject knowledge, developing a better understanding of Paper 5, making constructive criticism or judgements about the work of others.</p> <p><b>Compassion:</b> Assisting others, making informed choices about design and considering others, encouraging classmates.</p> <p><b>Community:</b> Discussion of work, peer and group written feedback.</p>	<p><b>Opportunities for developing the 5Cs</b></p> <p><b>Creativity:</b> Drawing, Sketching, Design, Mathematical application, Expression of ideas, structuring of thought processes, developing vision and spatial awareness. Improved options through the increase of knowledge. Using materials in an innovative way, developing a unique product, offering creative solutions, creative problem solving.</p> <p><b>Confidence:</b> Developing confidence in practical making ability,</p>	<p><b>Opportunities for developing the 5Cs</b></p> <p><b>Creativity:</b> Mathematical application, Using materials in an innovative way. Developing a unique product, offering creative solutions, creative problem solving.</p> <p><b>Confidence:</b> Developing confidence in practical making ability, developing confidence in using workshop machines, self belief in problem solving, making constructive criticism or judgements about your own work, offering</p>

<p>putting yourself in the shoes of others.</p> <p><b>Community:</b> Discussion of work, peer and group written feedback, group work, working for a client, questionnaire developments, ideas from others, opinions from others.</p> <p><b>Challenge:</b> Deciding upon a project that is fun, challenging and rewarding, pushing self boundaries when designing for others, replacing one's own opinions with that of others.</p>	<p>making constructive criticism or judgements about the work of others.</p> <p><b>Compassion:</b> Assisting others, making informed choices about design and considering others, offering others solutions, Giving of time and consideration for others.</p> <p><b>Community:</b> Discussion of work, peer and group written feedback.</p> <p><b>Challenge:</b> Learning a brand new style of exam for the first time, pushing self boundaries when designing for others.</p>	<p><b>Compassion:</b> Assisting others, making informed choices about design and considering others, sensitivity to other workshop users, awareness of space, sharing of materials, offering others solutions, Giving of time and consideration for others.</p> <p><b>Community:</b> Discussion of work, peer and group written feedback.</p> <p><b>Challenge:</b> Mastery of design and the theory of tools and the shaping of materials. Control and patience achieved in the process of manufacture, the chance to improve quality and craftsmanship, to offer a product that is considerate of the needs of the user and complies with health and safety regulations, pushing self boundaries when designing for others.</p>	<p><b>Challenge:</b> Learning a brand new style of exam for the first time, pushing self boundaries when designing for others, using unfamiliar drawing techniques for the first time</p>	<p>developing confidence in using workshop machines, self belief in problem solving, making constructive criticism or judgements about the work of others, offering assistance to others, developing surety in the use of tools and materials.</p> <p><b>Compassion:</b> Assisting others, making informed choices about design and considering others, sensitivity to other workshop users, awareness of space, sharing of materials, offering others solutions, Giving of time and consideration for others.</p> <p><b>Community:</b> Discussion of work, peer and group written feedback.</p> <p><b>Challenge:</b> Mastery of design and the theory of tools and the shaping of materials. Control and patience achieved in the process of manufacture, the chance to improve quality and craftsmanship, to offer a product that is considerate of the needs</p>	<p>assistance to others, developing surety in the use of tools and materials, achieved through success and reward.</p> <p><b>Compassion:</b> Assisting others, making informed choices about design and considering others, sensitivity to other workshop users, awareness of space, sharing of materials.</p> <p><b>Community:</b> Discussion of work, peer and group written feedback.</p> <p><b>Challenge:</b> Mastery of design and the theory of tools and the shaping of materials. Control and patience achieved in the process of manufacture, the chance to improve quality and craftsmanship, to offer a product that is considerate of the needs of the user and complies with health and safety regulations, bringing together the practical and theoretical knowledge to find a solution for problems.</p>
--	--	--	---	---	---

				of the user and complies with health and safety regulations, pushing self boundaries when designing for others, bringing together the practical and theoretical knowledge to find a solution for problems.	
<p><b>Literacy Opportunities:</b> Speaking &amp; Listening-Self/Peer/ Group discussion and evaluation, Literacy Foci and critique Written: Note taking and recording of information. Investigative procedures, Providing problem solving solutions. Response to research and investigative work. Reflection and evaluation. Specification writing.</p>	<p><b>Literacy Opportunities:</b> Speaking &amp; Listening-Self/Peer/ Group discussion and evaluation, Literacy Foci and critique Written: Note taking and recording of information. Investigative procedures, Providing problem solving solutions. Response to research and investigative work. Reflection and evaluation</p>	<p><b>Literacy Opportunities:</b> Speaking &amp; Listening-Self/Peer/ Group discussion and evaluation, Literacy Foci and critique Written: Note taking and recording of information. Investigative procedures, Providing problem solving solutions. Response to research and investigative work. Reflection and evaluation</p>	<p><b>Literacy Opportunities:</b> Speaking &amp; Listening-Self/Peer/ Group discussion and evaluation, Literacy Foci and critique Written: Note taking and recording of information. Investigative procedures, Providing problem solving solutions. Response to research and investigative work. Reflection and evaluation</p>	<p><b>Literacy Opportunities:</b> Speaking &amp; Listening-Self/Peer/ Group discussion and evaluation, Literacy Foci and critique Written: Note taking and recording of information. Investigative procedures, Providing problem solving solutions. Response to research and investigative work. Reflection and evaluation</p>	<p><b>Literacy Opportunities:</b> Speaking &amp; Listening-Self/Peer/ Group discussion and evaluation, Literacy Foci and critique Written: Note taking and recording of information. Investigative procedures, Providing problem solving solutions. Response to research and investigative work. Reflection and evaluation</p>
<p><b>Cross curricular:</b></p>	<p><b>Cross curricular:</b> Mathematics –Angles and measurement,</p>	<p><b>Cross curricular:</b> Geography – Environmental impact,</p>	<p><b>Cross curricular:</b> Mathematics – Proportion,</p>	<p><b>Cross curricular:</b></p>	<p><b>Cross curricular:</b> ICT - Online portfolio, presentations, word</p>

<p>Mathematics – Measurement and Scale  Sociology - Questionnaire, primary and secondary research.  Geography - Sustainability, social and economic consequences.  ICT - Online portfolio, presentations, word processing and spreadsheets.</p>	<p>measurement and scale  Geography - Sustainability  ICT - Online portfolio, presentations, word processing and spreadsheets.  Art - Sketching, daring and colour application.</p>	<p>mass production methods  Maths - Net development, arcs and circles  ICT - Online portfolio, presentations, word processing and spreadsheets, CAD</p>	<p>measurement and scale, net development, arcs and circles</p>	<p>Maths - Graphs, charts and statistics. Testing of materials.  English - producing a specification  Media - Layout and the use of text and graphics  ICT - Online portfolio, presentations, word processing and spreadsheets, CAD</p>	<p>processing and spreadsheets.</p>
<p><b>Health and Safety</b>  <a href="#">MRAT 011</a>  <a href="#">MRAT 155</a></p>	<p><b>Health and Safety</b>  <a href="#">MRAT 011</a>  <a href="#">MRAT 155</a></p>	<p><b>Health and Safety</b>  <a href="#">MRAT 011</a>  <a href="#">MRAT 150</a>  <a href="#">MRAT 155</a></p>	<p><b>Health and Safety</b>  <a href="#">MRAT 011</a>  <a href="#">MRAT 155</a></p>	<p><b>Health and Safety</b>  <a href="#">MRAT 011</a>  <a href="#">MRAT 103</a>  <a href="#">MRAT 109</a>  <a href="#">MRAT 155</a></p>	<p><b>Health and Safety</b>  <a href="#">MRAT 011</a>  <a href="#">MRAT 103</a>  <a href="#">MRAT 109</a></p>