Boardworks KS4 D&T coverage of Cambridge Design and Technology IGCSE (0445)

Curriculum Objectives – Part 1	Relevant Boardworks Presentations
Observe need/Requirement	**Product Design:** Developing your Portfolio
Design brief/Specification	**Product Design:** Developing your Portfolio
Identification/Research	**Product Design:** Developing your Portfolio Product Analysis
Generation of Possible Ideas	**Product Design:** Developing your Portfolio Product Analysis Designing for Different Needs Paper, Card and Board
Select/Organisation	**Product Design:** Developing your Portfolio Quality Control
Evaluating	**Product Design:** Developing your Portfolio Product Analysis Quality Control
Implementation and Realisation	**Product Design:** Product Manufacture Designing for Different Needs Paper, Card and Board, Ferrous and Non Ferrous Metals Food Products Timber based Materials Textile Products Ceramics Plastics
Health and Safety	**Product Design:** Designing for Different Needs
Initiation and Development of ideas, and recording of data	**Product Design:** Developing your Portfolio Designing for Different Needs
Communicating Ideas with Other	**Product Design:** Developing your Portfolio
Design and Technology in Society	**Product Design:** Designing for Different Needs Product Manufacture Evolution of Product Design
Aesthetics	**Product Design:** Evolution of Product Design

Anthropometrics and Ergonomics	**Product Design:** Anthropometrics and Ergonomics
Energy	**Resistant Materials:** Moral, Social, Environmental Issues
Control	**Product Design:** Control Components
Mechanical Control (Static)	**Product Design:** Product manufacture Paper, Card and Boardworks Ltd. Timber Based Materials Ferrous and Non-Ferrous Metals Plastics
Permanent Fastenings	**Product Design:** Product manufacture Paper, Card and Boardworks Ltd. Timber Based Materials Ferrous and Non-Ferrous Metals Ceramics Plastics
Mechanical Control (Dynamic)	**Product Design:** Control Components

Curriculum Objectives – Part 2	**Relevant Boardworks Presentation**
i) Graphics Products	
Formal Drawing	**Graphics Products:** Drawing
Orthographic Projection	**Graphics Products:** Drawing
Isometric	**Graphics Products:** Drawing
Planometric	
Estimated Two-Point Perspective	**Graphics Products:** Drawing
Sectional Views	
Exploded Views	**Graphics Products:** Drawing
Assembly Drawings	
Freehand Drawing	**Graphics Products:** Drawing
The use of appropriate and relevant geometrical constructions to determine basic shapes	
Developments	**Graphics Products:** Drawing
Ellipses	
Use of Instruments	**Graphics Products:** Graphic Media Materials
Use of Drafting Aids	**Graphics Products:**

	Graphic Media
Layout and Planning	
Presentation	**Graphics Products:** Drawing
Data Graphics	**Graphics Products:** Systems and Control
Reprographics	**Graphics Products:** Printing
Modelling	**Graphics Products:** Materials

Curriculum Objectives – Part 2	**Relevant Boardworks Presentation**
ii) Resistant Materials	
Practical Applications	**Resistant Materials:** Tools and Techniques
Types of Material	**Resistant Materials:** Plastics Woods Metals
Plastics	**Resistant Materials:** Plastics
Woods	**Resistant Materials:** Woods
Metals	**Resistant Materials:** Metals
Practical Applications Preparation of Materials	**Resistant Materials:** Tools and Techniques Manufacturing Processes Health and Safety
Setting/Marking Out	**Resistant Materials:** Tools and Techniques
Shaping A) Reforming/Deforming	**Resistant Materials:** Manufacturing processes
b)Wastage Addition	**Resistant Materials:** Industrial Practices
Special treatments	**Resistant Materials:** Metals Plastics Wood
Joining and Assembly	**Resistant Materials:** Tools and Techniques Components
Finishing	**Resistant Materials:** Tools and Techniques