

Key Stage 4 Learning Journey

NEA section D and E

Development of design ideas completed before moving into the planning and manufacturing of a proto-type product.
On-going evaluation as part of section F.



NEA section E into F

Completion of manufacturing before final evaluation based on testing by the candidate, target market and clients



Continuation of Design at A-Level, T-Level or apprenticeship.

Post-16



Summer examination and end of course



Theory – Unit 2

Energy materials, systems and devices



Theory – Unit 1, 3 and 5



Theory as part of NEA process including new and emerging technologies and materials.

Theory – Unit 7

Theory linked to making principles.

Autumn term assessments.
Mock examinations based on full exam board papers.



NEA section C into D

Generation of design ideas.

Students create solutions to their selected design topic. Use of research from section A and marked against candidate design brief and specification from section B. Selection of best idea/s for development.

Continuation of GCSE Design and Technology course

Revisit NEA goals and examination expectations. Weighting 50/50%

YEAR

11

Key Stage 4 Learning Journey

Researching a range of existing products and design styles.

GCSE links to Section A.

Design and make (DMA) project – Passive amplifiers. Links to GCSE DT courses including research, design, development and manufacturing using CAD/CAM.

Theory – Unit 3 and 7

Materials

Making principles

Design and development project – Controllers

Research, design and development. Links to **theory unit 4 & 6**(specialist technical and design principles).

Design and modelling of products using anthropometric data and ergonomics.. Links to GCSE sections A, C and D

Continuation of two-year GCSE Design course.

Year 11

NEA continued.

Section B

Section C

Summer assessment point.

Mock examinations of knowledge.

Start of NEA assessment

Section A - Research

Task analysis and product analysis of existing products.

Design, development and manufacturing. Links to Section C, D and E

Theory – Unit 3 and 5

Materials

Research of existing products, generating design ideas and development via modelling. GCSE links to section A, C and D of the NEA.

Baseline assessment including, sketching, presentation and health and safety.

YEAR 10

Introduction to GCSE Design and Technology course

Introduction to course overview and assessment structure.

Design and development project - Phone holders. GCSE DT courses including:- research, drawing styles, design and development (CAD and physical).

Iterative design process covering research, design, development, and evaluation cycle.

Prototype testing.

Links to GCSE and F.

Evaluation and end of unit assessment.

Design and Technology Learning Journey

Key Stage 3 Learning Journey



Researching a range of existing design styles, materials, and products. GCSE links to Section A.

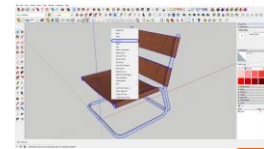


Design and development including prototyping. Links to Section C and D

Design and development project - furniture. Links to materials theory (timbers/paper and board).



Design and modelling of products in the style of famous designers. Links to GCSE sections A, C and D



Options: Student select pathway and subjects most suited to them.

Year 10



Evaluation of progress and end of unit assessment.

Manufacturing using hand-tools and machinery including CAM (laser cutter).

Revisiting CAD (2dDesign) to create design developments.

Task analysis and product analysis of existing products.

Manufacturing of quality outcomes. Links to section E

Developing S&K of manufacturing, assembly and finishing processes of timbers.

Generating design ideas (plan drawings) and development tasks. GCSE links to section C and D of the NEA.

Baseline assessment including, sketching, presentation and health and safety.

YEAR 9



Introduction to Y9 D&T
Revisiting health and safety in the workshop and baseline of progress.

Design and development project - WordArt. Links to future GCSE DT courses including:- research, drawing styles, design and development (CAD and physical).

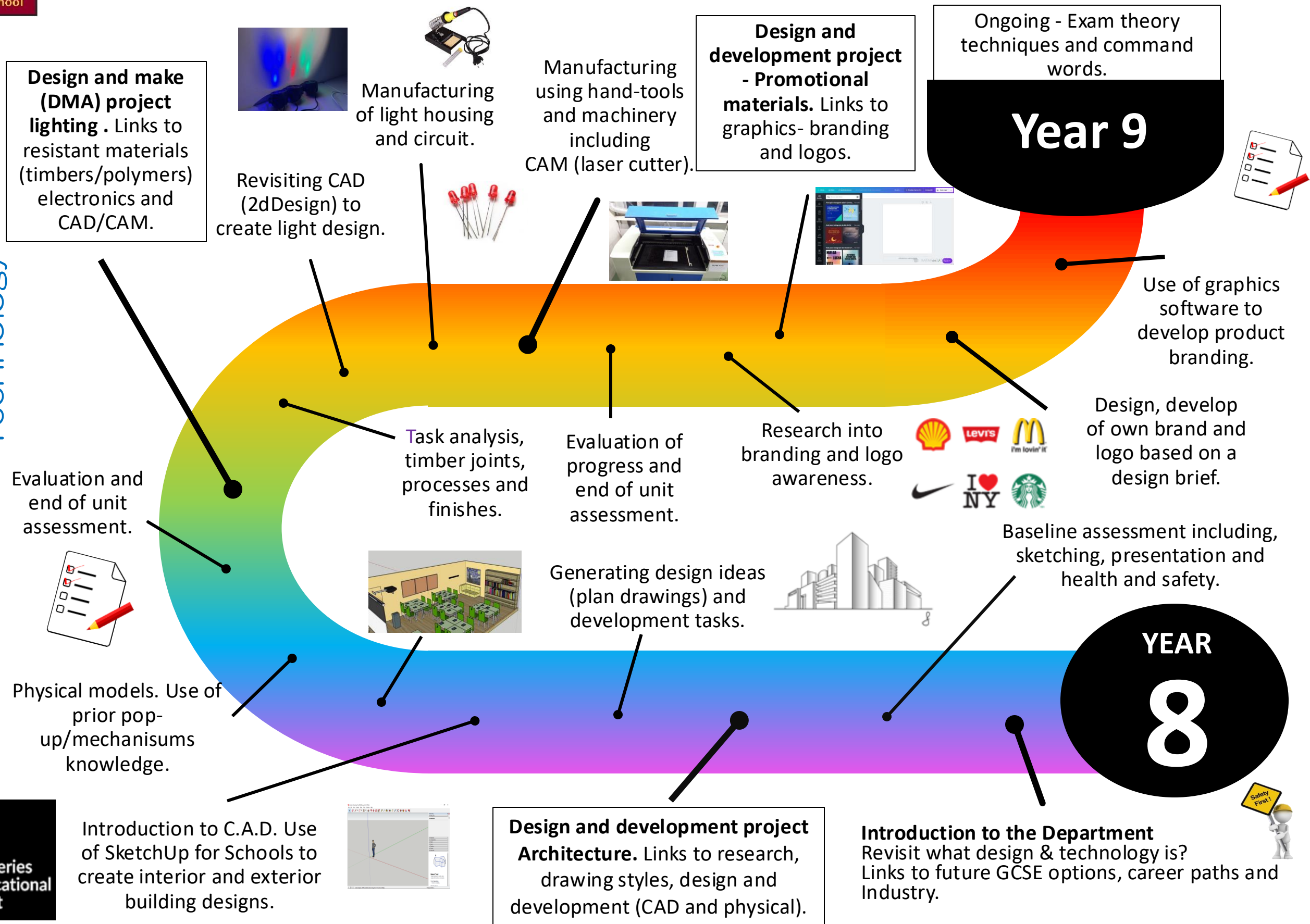
Revisiting C.A.D/C.A.M S&K. Use of 2D and the laser cutter to accurately mark out the product, before using hand tools to manufacture.

Evaluation and end of unit assessment.



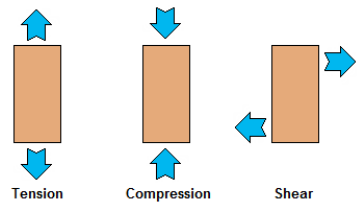
Recording of manufacturing evidence and evaluation of final products. Links to GCSE section E and F.

Key Stage 3 Learning Journey



Key Stage 3 Learning Journey

Design and Technology
Learning Journey



Design, develop and make a final solution using knowledge of movement.



Evaluation and end of unit assessment.

Design and make (DMA) project Sustainability. Links to resistant materials (polymers), CAD/CAM.



Developing knowledge of resistant materials properties.



Ongoing - Exam theory knowledge and command words.

Year 8

Evaluation of progress and end of unit assessment.



Manufacturing using hand-tools and machinery including CAD/CAM.

Experimenting in CAD.

Task analysis, materials research of thermoforming plastics



Paper Engineering: Mechanisms used in pop up cards.



Design and make (DMA) project Pop up cards. Links to graphics- colour typography and logos knowledge.

Evaluation and end of unit assessment.



Manufacturing diary to record practical progress.

Finishing products to a high quality.

Generating design ideas and development tasks.



Baseline assessment including, sketching, presentation and health and safety.

YEAR 7

Introduction to the Department
What is design & technology?
Links to future GCSE options, career paths and Industry.

Design and make (DMA) project Keyrings. Links to resistant materials, design briefs, task analysis and mood boards.



Manufacturing using hand tools and machinery.

Health and safety!