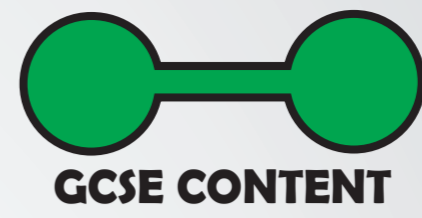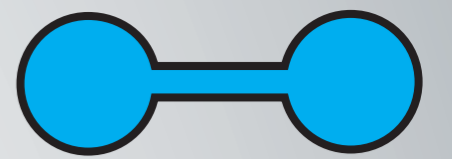# DESIGN & TECHNOLOGY CURRICULUM PATHWAY

GCSE CONTENT   NATIONAL CURRICULUM CONTENT

Smart materials, composites & technical textiles

Mechanical components & devices

Paper & boards

Natural & synthetic fibres

Electronic systems

Calculation revision

Practice questions

GCSE DAY

EXAM PREPARATION   **EXAM REVISION**

New & emerging technologies

NEA Contextual Challenge

Mock NEA: Problem Solving

Solidworks Skills (CAD) P3

Ethics Focus Day

STEM Focus day

Sustainability & environment

Energy generation & storage

Year 11

NEA - 50% GCSE   **NEA - SECTION 1 to 5**

Woods: natural & man-made boards

Metals - forces stock forms, processes & finishes

Mock Exam

CAD: Graphic Design

STEM focus day

Extended Project

Research

Design refinement

Plastics

Graphics

Solidworks skills (CAD) P2

Year 10

EXAM PREPARATION

Careers in D&T

Surface Finishes

Circuit symbols & components

Manufacturing processes

CAD

Nets & Packaging

Jigs & Formers

Isometric Drawing

Material Testing

Careers in D&T

Rapid Protoyping

Properties/ uses of materials

Workshop safety Soldering

KNOWLEDGE & SKILLS / NATIONAL CURRICULUM / EXAM

CAD / CAM industry

Designers & design eras

STEM Focus Day

Sewing machine technical knowledge

Workshop safety- heat treatment

Ferrous, non-ferrous & alloy metals

Client feedback

Year 9

Skills Passport
Anglepoise Lamp

Iterative Process

KNOWLEDGE & SKILLS / NATIONAL CURRICULUM

Levers & movement

CAM

Primary Analysis

Sustainability

Introduction to a design problem

Careers in D&T

Evaluation & testing

STEM Focus Day

Manufacturing diary & flowchart

Paper & Boards

Year 8

Art Deco Jewellery Project
Bag for Life
Board Games

Maths Area & perimeter of a shape

Testing & modelling

3D Drawing techniques

Primary and secondary market research

Design specification

Initial ideas

Solidworks Skills (CAD) P1

Hardwoods & softwoods

Careers in D&T

Year 7

Mobile Phone Holder
Textile Monster
Pencil Stand
Wooden Maze

KNOWLEDGE & SKILLS / NATIONAL CURRICULUM

2D Design (CAD)

Introduction to a design brief and context

Product analysis ACCESS FM

Workshop safety Tools & Equipment

Production methods Mass, batch and one-off

Maths Conversion cm - mm

Isometric drawing & rendering