

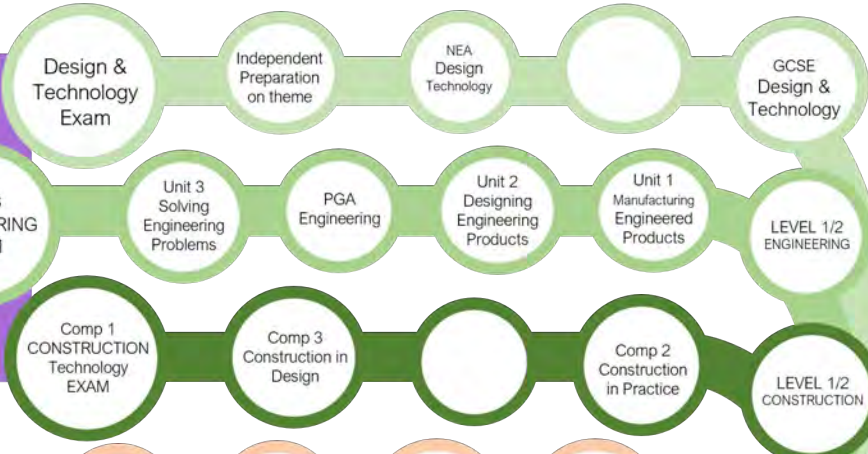
DESIGN & TECHNOLOGY

HARD TECHNOLOGIES - LEARNING MAP

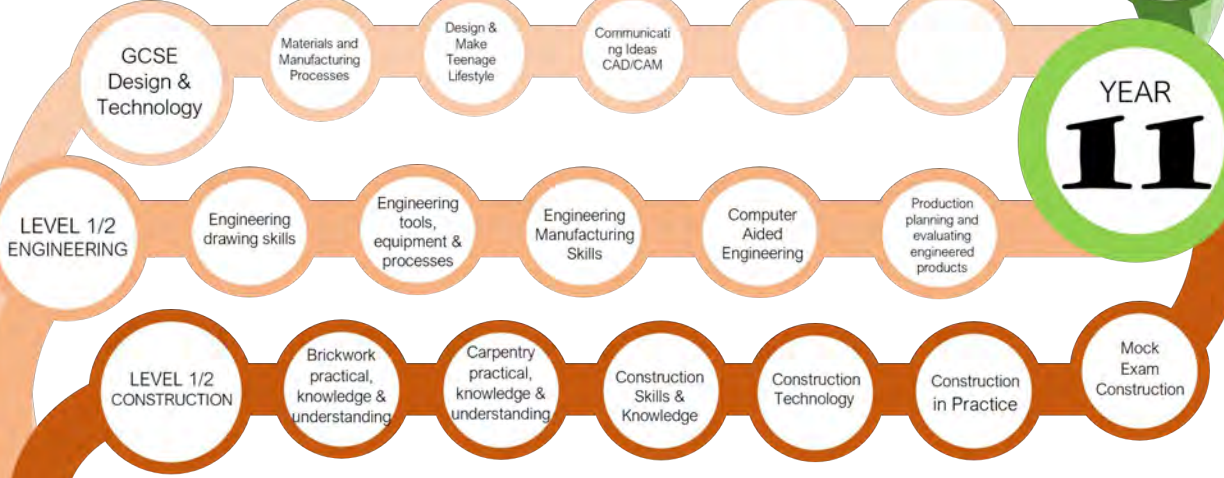


Key Stage **5**

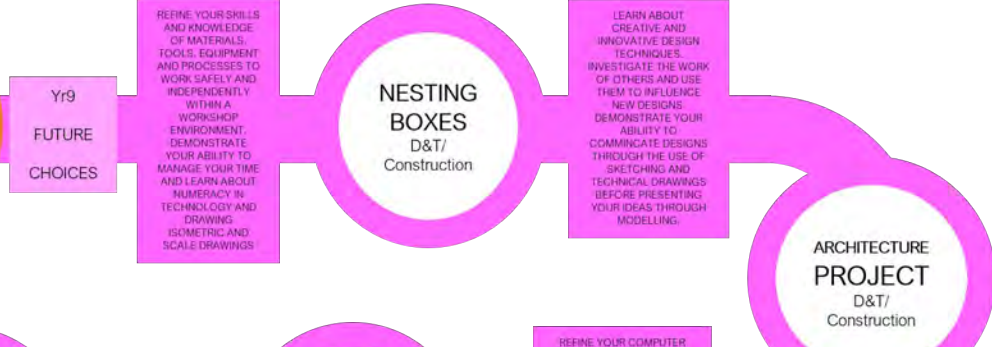
A-LEVEL
MATHEMATICS,
PHYSICS, ART & DESIGN



YEAR **11**



YEAR **10**
KS4



YEAR **9**



DEVELOP YOUR KNOWLEDGE AND UNDERSTANDING OF WORKSHOP CUTTING, SHAPING, JOINING AND FINISHING PROCESSES THROUGH THE USE OF POWERED TOOLS AND EQUIPMENT. LEARN ABOUT PPE, TEMPLATES AND HOW TO APPLY QUALITY CONTROL CHECKS



DEVELOP A DEEPER UNDERSTANDING OF ELECTRONICS INCLUDING INPUT PROCESSES AND OUTPUTS. LEARN ABOUT RESISTORS AND MICROPROCESSORS THROUGH THE ASSEMBLY OF AN ELECTRONIC CIRCUIT. UNDERSTAND PAPERS, CARDS AND POLYMERS THROUGH THE DESIGN AND MANUFACTURE OF PACKAGING INCLUDING THE FUNCTION



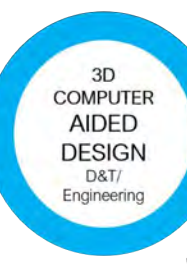
DEVELOP YOUR UNDERSTANDING OF CAD SOFTWARE BY LEARNING THE TOOLS AND CAD COMMANDS TO PRODUCE VIRTUAL 3D MODELS. LEARN HOW TO EXTRUDE 3D SHAPES AND HOW TO TEST AND DEVELOP YOUR DESIGNS. APPLY MATERIALS AND RENDERINGS TO YOUR MODELS



INTRODUCTION TO WORKSHOP HEALTH AND SAFETY. WORK WITH TIMBERS AND POLYMERS TO UNDERSTAND THEIR PROPERTIES AND QUALITIES. USE TOOLS & EQUIPMENT TO CUT, SHAPE, FORM, JOIN AND FINISH MATERIALS

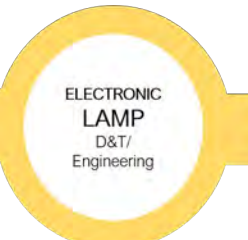
YEAR **8**

WORK IN MORE DEPTH AS PROJECTS IMPROVE YOUR PROBLEM SOLVING SKILLS WHILST DEVELOPING YOUR KNOWLEDGE OF MATERIALS AND INDEPENDENCE IN A WORKSHOP



KS3

INTRODUCTION TO ELECTRONIC INPUT AND OUTPUT COMPONENTS. LEARN HOW TO ASSEMBLE A CIRCUIT AND THEN DESIGNING A LAMP THAT INCORPORATES THE ELECTRONIC CIRCUIT



INTRODUCTION TO MODERN DESIGN AND MANUFACTURING TECHNIQUES USING CAD/CAM. LEARN ABOUT DESIGN AND MODELLING TOOLS AND PROCESSES. DESIGN USING CAD SOFTWARE BEFORE MANUFACTURING YOUR DESIGN USING ENGINEERING MATERIALS AND LASER CUTTING TECHNOLOGY



EXPERIENCE A RANGE OF PROJECTS THAT TEACH YOU VALUABLE DESIGN AND WORKSHOP SKILLS USING DIFFERENT MATERIALS AND TECHNOLOGIES

