YEAR 10 DESIGN AND TECHNOLOGY GCSE

KING JAMES'S SCHOOL

KNARESBOROUGH

Name: Teacher: Class:

During year 10 you will follow 4 different schemes of work:

ACTUAL NEA

Practice NEA
(Trophy project)

CAD/CAM
(Flat Pack Gift)

Ergonomics
(Torch Redesign)

In this unit you will learn to design and develop a CAD CAM project. The main body of work will be based upon an iterative design strategy where you will make a model, evaluate the model and then re model it with improvements. Your final design will be digitised in Adobe Illustrator so that it can be laser cut onto a quality plywood to produce a high quality outcome.

CONTENT

Iterative Design methods

Flat pack production and efficient use of material by **nesting** of laser pathways

Knock Down fittings

Adobe Illustrator as a **CAD tool** for laser pathways

SKILLS

Paper / Card Modelling

Adobe Illustrator Tools:
-Pen Tool
-Curvature Tool
-Direct Selection Tool
-Text Tool

Designing interfacing parts for manufature on the Lasercutter

Key Vocab:

Nesting
Flat Pack
Interface
Iterative Design
Interlocking
Etched
Render
Human Factors
Inclusive Design