

DESIGN TECHNOLOGY

A01 EXPLORE
BEGIN TO LINK A
THEME IMAGES
ARTISTS
LINK ARTISTS WORK TO
IDEAS AND ARTWORK

A02 EXPERIMENT
WITH A
RANGE OF MEDIA
TEXTILES WATERCOLOUR
CLAY PEN AND INK

A03 IDEAS
LINKING TO OBSERVATIONAL
ARTISTS WORK
ALL ARTWORK
LINKING TOGETHER
PLANS, DESIGNS
IN A RANGE OF EXPLANATIONS
DIFFERENT MEDIA ANNOTATION

A04 FINAL
MEANINGFUL PIECE OF WORK
HOW UNDERSTANDING
INFORMED RESPONSE
LINK BETWEEN TO ARTISTS WORK
VISUALS AND ARTISTS
PRESENTATION RELEVANT

Apprenticeship
College
Sixth Form
Training

EXAMINATION

YEAR
11

Pupils develop a personal project using
knowledge taught during Year 10.

SUSTAINED
PROJECT

KS4

YEAR
10

CHAIR
DESIGN



Chair Project A01
Investigate –
Design
Movements
Chair analysis

A02

Designing-
Perspective Drawing
Design drawings
Presentation
techniques

Developing-
CAD
Modelling and design
3D Card
models

A04

Realisation-
Developing a
final outcome



CAD
2D Design

Laser
Cutting

Wood
Inlaying

CAD
OnShape
Modelling

Shaping
plastics

3D
Printing

SKILL
DEVELOPMENT

CAD
MODELLING

Design:
Using OnShape to develop 3D CAD models.
The working environment, views including
isometric, creating objects, features,
revolve, orthographic drawing

Investigate:
Design briefs,
material testing,
iconic products,
ergonomics and
anthropometrics,
user needs and
wants, developing
a specification

Materials:
Manufactured boards
– what are they, why
do we use them, what
properties do they
have?

PROTOTYPE-
3D
MODELLING

Make/ Evaluation:
Develop your design through
iterative processes and
modelling, testing &
evaluating before making a
final product.

Make:
Accurately manufacture
an accurate lighting circuit
using soldering.

Materials:
Manufactured boards
– what are they, why
do we use them, what
properties do they
have?

Investigate:
Design briefs, types
of lighting research
and famous
designers and
specifications, user
needs and wants,
developing a
specification

ZOOMORPHIC
LAMP

YEAR
9

MECHANICAL
SYSTEMS

**Investigate –Types of
motions & everyday
mechanisms:** What
are the different types
of motion? Examples
of everyday
mechanisms

**Investigate – Cams,
levers and linkages:**
What do they do? How
do they work?

Design
Testing / Modelling:
Developing modelling
skills? Using models for
development as part of
iterative design.

Make:
Manufacture a
mechanical toy
using CAD CAM



Make:
Using hand tools, CAM and
pewter casting to
manufacture an accurate
product.

Design:
Develop independence
in CAD using 2D design
software to make
complex design ideas.

Materials:
Working with metals
and understanding
properties

Investigate:
Design briefs and
research including
image boards and
specifications

A
SPECIAL
GIFT

Use knowledge
and skills
learned earlier
in the Key
stage to
develop
successful
outcomes.
Deepen your
understanding
of DT whilst
developing
products that
help various
needs and
users.

CANDLE
HOLDER

Evaluate:
How successful is your
product? How can it be
improved based on user
feedback?

**Investigate -
Materials:**
Introduction to
metals.
What is a metal?

Design:
Using templates?
Orthographic drawing

Make:
Use of hand tools,
developing accuracy

Evaluate:
Does your product
work? How can you
fix problems?

YEAR
8

Work in more
depth on
projects,
honing your
practical skills,
improving your
resilience &
problem
solving whilst
developing
independence
in the
workshop.

KEY
STORAGE

Materials:
Introduction to timbers.
Where does timber come
from?

Make:
Plan of making

Design:
Designing for users,
creating accurate 2D
design ideas and
producing an
Isometric drawing



Design:
Designing for users,
creating accurate 2D
design ideas and
producing an
Oblique drawing

**Introduction to
the
workshop:**
Health and
Safety

Evaluate:
Does your product
work? How can you
fix problems?

Make:
What is CAM? Use the
laser cutter to produce
your final product!

Design: CAD
What is Computer
Aided Design? Learn to
use the basics of 2D
software to design
products

Investigate:
Design brief,
product
analysis and
Specification

YEAR
7

Experience a
range of fun
and exciting
projects that
teach you
valuable skills
in the
workshop,
understanding
different
materials and
how they work.

KS3