Design & Technology Key Stage 3 Curriculum Learning Journey

Key Stage 3 essential knowledge:

- The design cycle.
- Properties of materials.
- Sustainability and environmental impact.
- Knowledge of manufacturing processes.
- An understanding of how things are made.
- An understanding of how things work.
- Where food comes from.
- How to recognise a healthy diet.

Key stage 3 essential skills:

- Working with materials – processes, manufacturing, measuring, etc.
- Designing skills – 2D and 3D, freehand and CAD.
- Practical skills – manufacturing hand and CAM.
- Solving problems.
- Understanding and answering technical questions.
- How to draw and read diagrams.
- How to structure extended writing.
- Annotation of ideas, designs or products.
- To be able to form critical judgements.

Key Stage 4
Choose to continue studying GCSE
D & T
Engineering
Food Technology
Graphic Design
Health and Social Care

YEAR 9

DT Rotations: Systems and control : Structures

Structures: How to draw and read diagrams, properties of materials, how things work and how things are made, understanding and answering technical questions, annotation of ideas, practical skills.

Phone holder: Properties of plastic, practical skills, manufacturing processes, CAD, CAM, forming critical judgements, sustainability and environmental impact, how things are made, how to structure extended writing, understanding and answering technical questions, annotation of ideas.

DT Rotations: Resistant materials

DT Rotations: Graphics

Graphics – 3D design: The design cycle, annotation of ideas, designing skills – 2D and 3D freehand and CAD drawing and 3D modelling. Forming critical judgements.

DT Rotations: Food

Food: Through theory and practical lessons, learn about budgeting and food poverty, food waste and its economic and environmental impacts, and the dependent relationship between diet, nutrition and health.

YEAR 8

DT Rotations: Systems and Control: Mechanisms

How things work and are made, reading and drawing technical diagrams, annotation of ideas, model making, programming robotics.

Metal figure: Forming critical judgements, properties of metal, practical skills, manufacturing processes, sustainability and environmental impact, how things are made, annotation of ideas

DT Rotations: Resistant materials Metal figure

DT Rotations: Health & Social Care

Health and Social Care: Pupils study what makes up, how to improve and how to support our health and wellbeing, the physical, intellectual, emotional and social developments across the three main life stages, childhood, adulthood and old age.

DT Rotations: Food

Food: Through theory and practical application learn about how different food and drinks provide different nutrients in varying amounts, and that all nutrients have important functions in the body and how food choices impact on the body and the environment.

YEAR 7

DT Rotations: Systems and Control: Nightlight Project

Night light/systems and control: Practical skills, manufacturing processes, CAD, CAM, reading and drawing circuit diagrams, sustainability and environmental impact, an understanding of how electronics work and how circuits are made.

Wooden box: Properties of wood, practical skills, manufacturing processes, CAD, CAM, forming critical judgements, sustainability and environmental impact, how things are made, how to structure extended writing, understanding and answering technical questions, annotation of ideas.

DT Rotations: Resistant materials Wooden Box

DT Rotations: Graphics

Through theory and practical lessons, we need food and drink to grow, be active maintain health and stay. We need a variety of food and drinks for health, as depicted by the Eatwell Guide. All food comes from plants or animals.

DT Rotations: Food

Graphics introduction: The design cycle, annotation of ideas, designing skills – 2D and 3D, freehand and CAD.

Key Stage 3

Key Stage 2