



Careers in trades, manufacturing and engineering

wood	plastic	metal
cut & shape	fix & finish	heat & treat
mechanics	electronics	robotics

The last leg of their DT learning journey will engage students in each of the DT matrix blocks.

Year 10/11: Students develop skills for the future – casting, welding, machining, electrical wiring, assembly

Life skills for independent living

Mechanical Engineering

More Metal Fabrication

YEAR 11

Vocational Preparation

Year 10: Students use metalworking skills to build a small motorised electric car, and explore work in local industries.

Enterprise Challenges

Making commercial products

HOW2 practical tasks

Using code to control machines

CNC & Robot Programming

Enterprise and Life Skills

Mobile Phone Holder

Fabricating plastics with heat, moulds, & vacuum forming

Electronic Circuits

Switches & Motors
Sirens & lights

Battery Buggies

YEAR 10

Year 9: Students work with machines and processes.

Storage Box

Using the vacuum former to make a tray

Candy Caddy

Robots: hand-held learning

Introduction to Circuits

Simple breadboard circuits

Products with a Purpose

Working with the laser cutter

Rubber Band Cars & Boats

3D Printed components

Battle Spinners

Purpose & Form: mechanics in motion

YEAR 9

Year 8: Students build confidence and skills with tools and materials

Working with metal

Tin Can Robots

Pewter casting

Pencil Box

Engraving with the laser cutter

Bird Feeder

Finding out more about materials: wood and plastic

Introducing robots

Acrylic Pen Holder

Using heat to shape plastic

Ball Puzzle Game

YEAR 8

Year 7: Students learn workshop safety, explore different materials, and use hand and machine tools.

Introduction to 3D Printing

Toy Cars

Making it move

Wooden Robots

Playing with ideas

Coat Hooks

Using tools: health & safety

Working with plastic

Acrylic Key Fob

Shape & Form

Calendar

Working with wood

Pencil Holder

Workshop Health & Safety

YEAR 7

At Friars Academy, the subject of Design and Technology allows us to discover the properties of different materials, explore designs for aesthetic or functional creations, and develop practical skills. It gives us an understanding of safety in the workshop, an opportunity to be creative, and a means by which we build life skills for independent living or a career in a practical environment.

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Beginning our Design & Technology Learning Journey