

# Design & Technology at KS3

## Course Description

Throughout KS3 NTC students will experience developing their knowledge and skills within a range of D&T areas. Each component will cover a range of Learning Aims which will be assessed through the completion of several assignments. These are designed to inspire the students and to encourage them to understand and explore materials in our course components.

Students will experience all of the components at least once in the 2-year Key Stage to enable them to make an informed choice for Key Stage 4.

## Equipment Required:

Pen, pencil, pencil sharpener, 300 mm ruler, eraser, coloured pencils.

## Course Components

**Resistant Materials** – working with hard and soft woods, manufactured boards, mild steel and Aluminium.

**Engineering** – working with metals on centre lathes and milling machines

**Construction** – working with timber and manufactured boards

**Technical Drawing/Graphics** – developing drawing skills and techniques to produce advanced working drawings and pictorial views of products

**Electronics** – exploring and designing circuits with a range of components to produce several electronic products.

**CAD – CAM** – exploring how computer aided design and manufacturing can make useful products

## Assignments (from):

Casting, Photo frame, nightlight, Torch, Mechanisms, Structures, Forge work, Carpentry, Concrete, Lathe work.

## Gifted and Talented Provision:

Students are encouraged to exceed targets across Key Stage 3 using a course designed with appropriate extension assignments to prepare all students for transition into Key Stage 4.

## Extracurricular Opportunities:

- Encouraged to join the DT club
- Clear links to computing & ICT

## Assessment

- Students are assessed on the assignments they complete in each component and over the years will be assessed on each aspect of the Learning Aims.
- Assessments will be used to track student progress, inform decisions about groups, potential KS4 courses and create individual targets which will raise student aspirations.
- They will also be assessed on their ability to independently use tools and machinery properly, safely with accuracy.

## Useful Websites

[www.bbc.co.uk/Bitesize](http://www.bbc.co.uk/Bitesize),  
[www.technologystudent.com](http://www.technologystudent.com),  
[www.mr\\_dt.com](http://www.mr_dt.com), [www.tes.co.uk](http://www.tes.co.uk)