

Curriculum plan: D&T

"Design is not just what it looks like and feels like. Design is how it works."
- Steve jobs, co-founder of apple, inc.

"There are three responses to a piece of design - yes, no and WOW!
Wow is the one to aim for." - Milton Glasser, Designer of I ♥ NY icon.

Intent

At Woodhouse Academy Design & Technology is taught in our specialist design environment. Here students get to experience hands on practical projects, enabling them to utilise our full range of tools and machinery to complement their learning. Our design and technology curriculum is designed to develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.







ENRICHMENT IN D&T

Sharing our passion and deep subject knowledge equips our students with high quality learning experiences which will inspire, ensure outstanding progress and provide them with a range of skills to enable them to be effective participators in society.







We have links with other establishments that our students may experience; including 'Lego' at Newcastle College or using a laser cutter at Newcastle Under Lyme school. In KS3 we also offer the opportunity to compete in a robot building competition facilitated by First Tech UK.



y5 Curriculum plan: D&T

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 5	Chocolate Wrapper		Key Tag		Rolling Board Game	
	<p>Key elements:</p> <ul style="list-style-type: none"> • Introduction to subject • Designing with fonts. • Accurate cutting • Testing & Evaluating 		<p>Key elements:</p> <ul style="list-style-type: none"> • Using plastics • Design challenge • Use of cutting tools • Smoothing & finishing techniques 		<p>Key elements:</p> <ul style="list-style-type: none"> • Design to solve a problem • Creation of wood joints • Joining techniques • Decoration & finishing • Testing • Peer & self evaluation 	
						

y6 Curriculum plan: D&T

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 6	Mini Light		Acrylic Techno stand		Cam Toy	
	<p>Key elements:</p> <ul style="list-style-type: none"> • Problem solving • Electronic circuits • Component history • Assembly & Testing • Self & peer evaluation 		<p>Key elements:</p> <ul style="list-style-type: none"> • Plastic knowledge • Shaping techniques • Joining techniques • Polishing & finishing • Testing & Evaluating 		<p>Key elements:</p> <ul style="list-style-type: none"> • Use of cams • Build on woodwork skills • Knowledge of joining materials • Testing & Evaluating 	
						

y7 Curriculum plan: D&T

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 7	Money Box Key elements: <ul style="list-style-type: none"> • Problem solving • Graphic drawing • Accurate marking & cutting • Joining techniques • Decoration & finishing techniques • Testing & Evaluating 		Pencil Holder Key elements: <ul style="list-style-type: none"> • Design development • Accurate graphical drawing • Product research • Material selection • Using jigs • Wood finishing techniques • Test & Evaluate 		Steady Hand Game Key elements: <ul style="list-style-type: none"> • Design research & solutions • Complex electronic circuits • Electrical joining techniques • Circuit assembly • Test & Evaluate 	



y8 Curriculum plan: D&T

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 8	Balancing Ornament			The Clock Project		
	<p>Key elements:</p> <ul style="list-style-type: none"> • Introduction to metalworking • Accurate measuring & marking • Use of Taps & Die • Joining of metals • Polishing & Finishing techniques • Test & Evaluate 			<p>Key elements:</p> <ul style="list-style-type: none"> • Develop a theme • Research & design A3 folder • Graphical techniques & colour rendering • Accurate cutting list • Variety of materials to be used • Test & Evaluate 		



HELLO

PERSONAL SAFETY
You will develop skills and knowledge of how to work in this new environment keeping yourself and others safe.

D&T LEARNING JOURNEY

Rolling Ball Game

You will learn some wood working basics with the design and construction of this wooden game. You will be taught how to use marking out tools, general wood saws, wood files, gluing techniques as well as decorative elements including paint.



PERSONAL SAFETY
You will build upon previous skills and knowledge of how to work in this unusual environment keeping yourself and others safe.



Mini Light Project
You will undertake a design and make assignment where you will explore basic electronic circuits using modern man made materials .

Machinery
You will be introduced to different machines during this year: namely a Pillar Drill and Hegner electric saw. These should allow you to work faster and more accurately.

Year 6



Chocolate Wrapper making

You will learn how to manipulate media to construct a 3D container using existing scissor skills and introducing more advanced knife and board techniques



Chocolate Wrapper design
You will learn how use graphical techniques to create informative and decorative designs as illustrated in the many existing wrappers.

Year 5

Developing all existing skills acquired during KS1 and the start of KS2 (in the first school setting,) through specialist teaching in middle school.

KS3 D&T will build on the skills and techniques you have developed in Years 5 and 6 to prepare you for GCSE study.

Key Fob Project

Create a tag for a set of keys using Acrylic materials. Develop skills using new tools to measure, mark and cut out said material.



Money Box Project

For this project you will learn more of the design process that all items are designed against. You will discover that its not just about making a money box but about designing to given criteria, set by another person. This will require a lot of background work, completion of a design folder, before any making takes place.

Year 7

Visiting the high school within our partnership
Allows students access to designs done by past students giving them an insight into possible future aspirations.

The department has a wide range of resources to help you with your studies, from design history books, books on specific design houses, a school library of others resources, not forgetting the use of the IT rooms or laptops/l pads for research. Why not select a specific designer and discover more about them during Reading Time?

Packaging

Looking at the history of the box, how it has developed over the past 100 years or so and what do we expect to see in the future.

Year 8



Year 9 will build on all of your art skills and develop knowledge that you acquired in middle school.

Ready for the next step
Fully equipped to tackle the remaining year of KS 3 and make the all important choices for KS4



Clock

Usually the final project allowing the students to apply all their previous learning and knowledge into a keepsake product. This will be a design and make product, students will work on A3 paper, preparing them for work in Y9.

Balance Toy

An introduction to developing skills and techniques whilst working in metal. Two types namely Brass and Copper coated Mild Steel. Developing more tool skills using Hack saw, Taps & Die set, emery cloth to polish.



During your time in KS3 you will have the opportunity to join our Robotics club, an extra curricular session building, programming and competing in challenges with and against other schools.



Using 2D Design

Introduction to a design software package which will enable students, with practise, to design and make products using a laser cutter.



Steady Hand Game

Design and make project building on previous electronic skills to build a challenging game to test your nerves. New skills will include soldering and using Vacuum Former to create new shapes in High Impact Polystyrene.

Point of Sale displays
Marketing plays a major part in the stages after design and making have ended. How do our products reach the market place. Undertake a short research task giving historical, present and future examples.

Graphical Techniques

Building on previous work you will examine new and existing ways of presenting written word through differing techniques.

