



# The Henrietta Barnett School

## The DTE Curriculum



Authenticity - Kindness - Curiosity  
Connection - Endeavour

## Year 7

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We encourage creativity and originality in a range of activities, using a variety of different materials and techniques in our workshop and design studio. We provide opportunities for students to develop their designing, graphic and making skills, to gain understanding, and to explore the technology and values that contribute to society. Projects cover plastic, wood, textiles, computer graphics and structures using both hand tools and machines. Assessment is based on the design folder and practical work that students complete during the year.

## Year 8

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Students extend their knowledge and skills developed in Year 7. They develop their design ability using computer graphics (including 2D and 3D CAD packages), and they learn to use a wider range of tools and machines with increased accuracy. They develop their problem solving skills and learn about electronics in the 'light activated mood lamp' project and they make a passive amplifier using modern and smart materials. They also have an opportunity to work with the 3D printer to design and make unique and high quality products. During this year the students are encouraged to consider the needs of a client or specific user rather than just designing for themselves.

## Year 9

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The students develop their ability to problem solve, work independently and to manage time and resources effectively to complete an extended project. During this year the students are encouraged to develop design and make work that will appeal to whole market segments, which will solve real problems and will be commercially successful. They do this by following a thorough design process and by consulting with the target market at key points during the project. The students' knowledge and understanding of CAD and CAM technologies is developed this year ensuring that the students are aware of modern manufacturing techniques.

## GCSE Design and Technology

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During this two year course our students are encouraged to design and make products with originality, creativity and flair and using a wide range of materials, tools and techniques. A good knowledge of materials, including Smart & Modern materials, is developed so that students can

make informed, intelligent and appropriate decisions about their design and engineering work during practical activities.

The student's ability to manage projects, think critically and creatively and take risks with their work is actively encouraged and this helps to build resilience, independence and ownership of their work. Sustainability and the environment play a key role in the course and the students are encouraged to foster an awareness of how their products will affect the world around them.

During Year 10 the students conduct a series of shorter projects in which they can respond creatively to a given brief and develop valuable project management and negotiation skills.

During Year 11 the students complete the extended Controlled Assessment project and also consolidate their theoretical knowledge in preparation for their public exam at the end of the year. The Controlled Assessment which consists of a portfolio and practical piece counts 50% towards the final grade with the theory paper accounting for the remaining 50%.

## A Level

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'Product Design' is offered at A Level. This is a broad term which is used to describe a '3 Dimensional Physical Product' whether it be Engineering based, Graphic, Resistant Material or Textile based. During this course the students are encouraged to work with real clients outside of the school setting in order to experience design and problem solving in the real world. They select a brief and follow a design process that allows them to solve real problems and produce professional standard products.

In Year 12 students are given a series of quick response briefs designed to nurture and develop their creative ability and technical knowhow. Our students are encouraged to complete thorough investigations that allow for informed and confident decision making. Theory lessons develop broad and deep understanding on a range of topics including globalised design and manufacture, sustainable development and ergonomics, among others. Theory lessons provide opportunity for lively discussion and debate covering a wide range of topics.

In Year 13 the students complete an extended design and make task which counts towards 50% of their final grade. The students are expected to work for an external client on a project that is as close to a professional design process as possible. The brief is student lead and so they can choose an area of study that most interests them. The 2.5 hour theory paper counts for the final 50% of the grade and is sat at the end of the year.