Design and Technology at Bowesfield Primary School

Design and Technology encourages children to work creatively and imaginatively drawing on a range of subjects. Through the processes of planning, making and evaluating, they learn how to take risks, become resourceful, innovative, enterprising and capable citizens (linking to our design and technology vision).

Here at Bowesfield to support the teaching and learning in Design and Technology, the curriculum is based on 'projects on a page' – a scheme of work from the Design and Technology Association. This scheme builds on prior learning and builds upon skills previously taught (see chart below)

When learning about food and nutrition, children will be given the opportunity to learn about **Article 24** – every child has the right to the best possible health including nutritious food and **Global Goals 2** – No Hunger.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn	**Mechanisms** Sliders and levers		**Mechanisms** Levers and linkages	**Electrical Systems** Simple circuit and switches	**Food** Celebrating culture and seasonality	**Electrical Systems** More complex switches and circuits
Spring	**Food** Preparing fruit and vegetables	**Mechanisms** Wheels and axles	**Food** Healthy and varied diet		**Structures** Structures	**Mechanisms** Mechanical systems – pulleys and gears
Summer	**Structures** Free standing structures	**Textiles** Templates and joining	**Textiles** 2D and 3D products	**Structures** Shell structures	**Textiles** Combining fabric shapes	

Design and Technology at home.

There are lots of ways you can support your child's learning about design and technology at home. Looking at packaging such as boxes or kitchen roll tubes, your child could take these apart and look at the various shapes that are made when they are unfolded. They could use recycled materials to build models using tape or glue and decorate them with pens, crayons, pencil or paint.

Things that would help: scissors, paint, pencils, crayons, old boxes and tubes, glue, cellotape

Did you know that cooking with your children is also part of the national curriculum for design and technology?

Children learn skills such as chopping, grating, squeezing, mixing and combining ingredients, peeling, spreading and kneading. We use a variety of equipment in school that you may have at home. Allowing you child to help at home when making food will develop their confidence in this area and they will be able to share their experiences with adults and children.

Examples of the type of equipment we use in school with your children.

Your children also experience sewing within school, so if you are making clothes etc., why not show your child what you are making.

BBC Bitesize also have ideas and activities for home learning in design and technology. Follow the links below.

KS1 https://www.bbc.co.uk/bitesize/subjects/zb9d7ty

KS2 https://www.bbc.co.uk/bitesize/subjects/zyr9wmn

Design and Technology in the Work Place

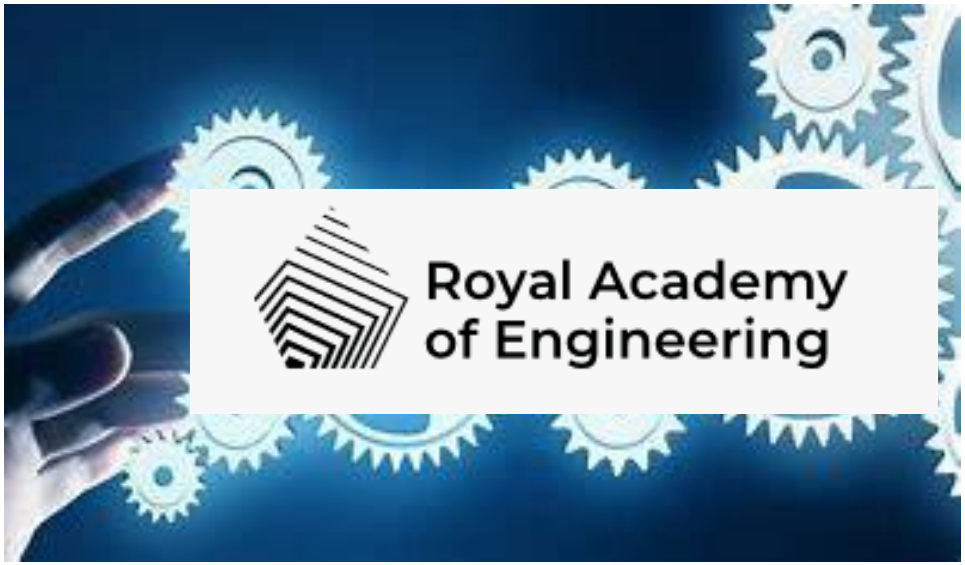
Design and technology in primary school can help children in the future with a variety of careers such as fashion designers, chefs and engineers.

Fashion Designer- Marc Jacobs

Fashion Designer – Donna Karen (DKNY)

Chef - Nadiya Hussain

Chef – Sanjeev Kapoor



By 2025, the academy wants to harness the power of engineering to build a sustainable society and an inclusive economy that works for everyone. At the Royal Academy of Engineering we have a responsibility to provide leadership for engineering and technology and technical leadership for wider society.

The academy wants to show the talents of many engineers in our society. Click on the following links to be inspired by engineers who have shown it does not matter who you are, you can live your dream.

https://www.raeng.org.uk/diversity-in-engineering/diversity-and-inclusion-at-the-academy/celebrating-leading-women-in-engineering

https://www.raeng.org.uk/diversity-in-engineering/diversity-and-inclusion-at-the-academy/celebrating-leading-ethnic-minorities-in-engineer

Bowesfield Wall of Fame

Meet Simon Ashton BEng (Hons) MAPM – Project Manager at Primetals Technologies.

I joined Primetals Technologies as a 16-year-old Modern Apprentice in September 2003. Starting my career in the field of Engineering, I progressed through the ranks to Principal Engineer, gaining valuable project experience and academic qualifications including a Mechanical Engineering degree.

As I gained experienced, I was exposed to more complex projects with added responsibilities. This ranged from leading a team of engineers to execute small work packages, to being the deputy site manager on a £20 million pound turn-key project.

Design and Technology at Bowesfield Primary School

During my time at Bowesfield Primary School, I was first introduced to Mechanical Engineering through designing and building a simple electric propeller car to race against other pupils in a competition. Using cardboard, bottle caps and dowel rods alongside a plastic propeller, DC motor and AA batteries, I learnt how to create an electrical circuit and understand how aerodynamic designs and material choices can affect performance. Undertaking activities such as this, and solving engineering problems such as building bridge structures from paper straws to hold a weight, has contributed towards me choosing a career path in Engineering, and ultimately Project Management.