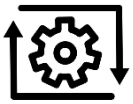
Barnfields Primary School: Design and Technology Subject Rationale

Design and Technology Subject Quest at Barnfields:

To design and make products that solve real and relevant problems within a variety of contexts for the express purpose of communicating design intent and constructability.

Knowledge Types in Design and Technology

Procedural	Practical	Disciplinary
		

Design and Technology Intention

At Barnfields, Design and Technology is a key component of our curriculum, introduced in Key Stage 1 and Key Stage 2, building upon the foundations laid in the Early Years Expressive Arts and Design. Our approach encourages children to select and use appropriate tools safely and effectively to create a product. The curriculum is designed to progressively deepen children's understanding of design and technology techniques, emphasising that these skills serve a purposeful goal: to satisfy a human need or want. This is encapsulated in the idea of "**Something for Somebody for Some Purpose**."

Alongside this, we study a range of designers and food practitioners, exploring diverse styles. This exploration enables Barnfields children to learn how designers can reflect and interpret the world around them. Additionally, our curriculum fosters critical thinking, empowering children to express their opinions, thoughts, and feelings about designs and products.

Provision, Planning and Delivery

Provision

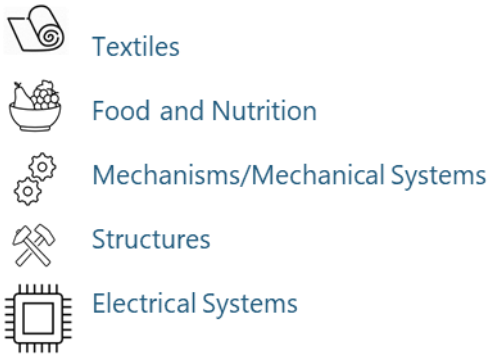
We bring our vision for Design and Technology to life by:

- Prioritising Design and Technology as a dedicated subject within the school timetable.
- Implementing a curriculum that allows learners to progressively build upon key design and technological techniques.
- Providing ample time for children to experiment with a variety of materials, tools, and techniques.
- Connecting hands-on activities with expert examples by exploring the work of renowned designers, craft makers and designers.
- Encouraging collaborative discussions in pairs and small groups, fostering respectful and positive communication of thoughts, feelings, and ideas.
- Reinforcing key design and technological concepts such as the 'design, make and evaluate' process to deepen understanding.
- Promoting the use of design and technological vocabulary when analysing both professional products and children's own creations.
- Designing learning units that allow for personal expression and thoughtful reflection.
- Giving children the freedom to choose their own materials for outcomes, fostering independence and creativity.
- Supporting children in articulating their observations and ideas, helping to refine and expand their thinking.

- Encouraging self-evaluation and constructive feedback on their own and others' work, emphasising growth and continuous improvement.
- Exploring a diverse range of designers, both historical and contemporary, to develop a deeper understanding of design and technological evolution over time.

Planning

Adhering to the Design and Technology Subject Road Map, the children at Barnfields access a balanced and ambitious curriculum that builds year on year. In every year group from Yr1 onwards, the children explore the 5 key aspects of Design and Technology (*textiles, food and nutrition, mechanisms, structures and electrical systems*)



Teachers use the Barnfields Knowledge Progression Grid (which outline the knowledge content to be taught) to create a Medium-Term Plan (MTP) for each unit of learning.

Delivery

The Design and Technology curriculum in Key Stage 1 and Key Stage 2 is delivered every term during discrete lessons. To enable the children to be immersed in their study, lessons are organised into half-termly blocks with one lesson per week, with a minimum of six hours per term dedicated to study in this specific curriculum area.

Progression

At Barnfields, we ensure progression in Design and Technology by having designed a curriculum that builds children's knowledge systematically over time. We understand that progression means children '*knowing more, remembering more*', and being able to do more with their knowledge.

At Barnfields, our progression in Design and Technology across Key Stage 1 and Key Stage 2 is carefully structured to develop children's skills, knowledge, and understanding. In Key Stage 1, children begin by exploring simple designing, making, and evaluating activities, encouraging their creativity and introducing them to different materials and tools. They start to plan and create straightforward projects, gaining confidence in their abilities.

As they progress into Key Stage 2, pupils take on more challenging tasks, applying their understanding of mechanisms, structures, and electrical systems. They learn to plan projects in greater detail, consider safety and sustainability, and critically evaluate their work. Our approach ensures that children develop independence and confidence in their designing and making skills, preparing them to become innovative and resourceful young designers.

Disciplinary Oracy

Oracy is embedded throughout Design and Technology at Barnfields, supporting children in thinking critically, reasoning logically and communicating design ideas with confidence. Talk is used across the design, make and evaluate cycle to help pupils articulate intentions, justify decisions and reflect on outcomes.

In EYFS, children talk about materials, tools and simple creations through guided exploration. Teachers model early subject vocabulary and simple sentence structures, supporting children in naming what they use, describing what they make and explaining basic purposes.

In Key Stage 1, pupils engage in purposeful discussions about designers, existing products and design briefs. Sentence stems linked to features, functions and materials help children describe designs clearly and begin to justify choices. Partner and group talk supports pupils in explaining how products work and reflecting on whether designs meet their intended purpose.

By Key Stage 2, pupils use more technical vocabulary and sustained explanations to discuss mechanisms, materials and design decisions. The “Something, for Someone, for Some Purpose” structure helps children articulate clear **design intentions and justify choices** with reference to user needs. Pupils evaluate products using practical evidence and precise subject language.

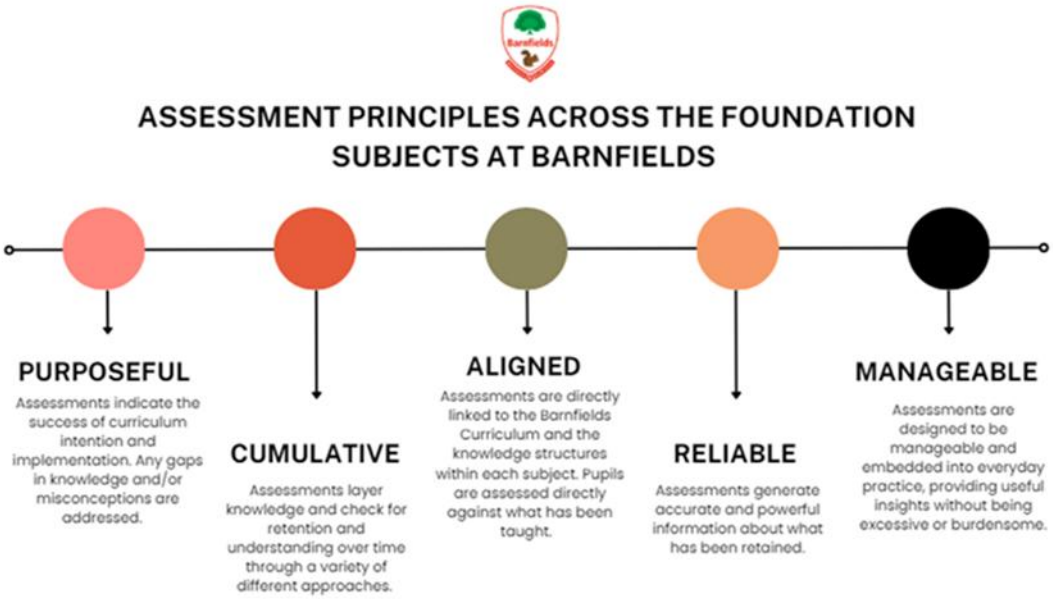
Across all phases, appraisal opportunities and guided questioning encourage pupils to interpret techniques, consider designers’ intentions and explore how context shapes design choices. Regular partner, group and whole-class discussions strengthen reasoning, collaboration and respectful challenge.

At the end of each unit, pupils **present finished products** through classroom galleries or exhibitions, explaining creative decisions and responding to questions. These purposeful speaking opportunities develop clarity, confidence and audience awareness.

Assessment, Recording and Reporting

Assessment

Assessment in Design and Technology follows the school’s five assessment principles for the foundation subjects: *purposeful, cumulative, aligned, reliable and manageable.*



Teachers evaluate each child's proficiency in Design and Technology by observing them during lessons and reviewing their work afterward. Further assessment strategies include, but are not limited to: learning conversations, questioning, self/peer assessment, marking, retrieval practice. It is the process that should be recognised not just how aesthetically pleasing the end product is.

This multi-faceted approach to assessment is then used to inform adjustments to the learning sequence for both individuals and entire classes. Based on continuous assessment, teachers determine whether to revisit, reinforce, or advance units of learning in future sessions.

Recording

Design and Technology learning is documented in children's personal sketchbooks, with each entry tailored to the specific learning objective. Evidence produced may include the child's own designs written explanations, visual notes, diagrams and/or photographs.

Reporting

Teachers upload pupil attainment data onto Sonar at the end of each term, determining if a child is either below age-related expectation, age-related expectation or exceeding age-related expectation. The aim of this assessment is to provide an evaluation of how much knowledge pupils have learned and remembered. They enable leaders to identify whether specific curricular goals have been achieved. This, therefore, plays an important role in evaluating the impact of the curriculum.

Children's progress in Design and Technology is formally communicated to parents annually through end-of-year reports. Additionally, informal updates are provided during any exhibitions held and parents evening.

Supporting Research:
Ofsted (2022) Research review series: art and design