

Newquay Primary Academy



Design & Technology Policy

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Intent

Design and Technology (D&T) is an inspiring, rigorous and practical subject which aims to fulfil a need. D&T, and our delivery of it, encourages children to think and intervene creatively to solve problems both as individuals and as members of a team. Through our delivery of D&T, we aim to develop behaviours associated with teamwork in design and technology. At Newquay Primary Academy, we encourage children to persevere and use their creativity and imagination to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values and the needs and values of the society in which they live, including their local communities. This includes creating products which reflect our locality.

We strive to ensure that all children meet their full potential in D&T through providing support, guidance and explicit teaching of D&T skills which can then be applied to wider projects. Through our structured progression of skills teaching, we equip pupils with the skills, knowledge and vocabulary of a designer that will equip them for their present and future lives. We aspire to all children being passionate about D&T and having aspirations with their designs as we believe that each and every child can become a future designer, creator or inventor! We ensure that D&T offers challenge and is inclusive and accessible to all; we offer support and differentiation to ensure this. Broader experiences are given to the children beyond the classroom through opportunities offered at forest school, beach school and extra-curricular construction clubs which we realise are not only educational but also key to children's well-being.

We aim to, wherever possible, link work to other disciplines such as mathematics, science, engineering, computing, and art. The children are also given opportunities to reflect upon and evaluate past and present design technology, its uses and its effectiveness and are encouraged to become innovators and safe risk-takers who think critically.

Implementation

At Newquay Primary Academy, we follow the Kapow D&T curriculum delivering units every half term, in line with the National Curriculum, to ensure we build progressively on the knowledge, understanding and skills needed to engage in an interactive process of designing and making. The children work in a range of relevant contexts (for example home, school, leisure, culture, enterprise, industry, and the wider environment). Our D&T curriculum encourages and equips children with both the broad and technical vocabulary associated with D&T and an understanding of the knowledge, processes and skills involved in designing, making, and evaluating.

Key skills and key knowledge for D&T have been mapped across the school to ensure progression between year groups. This also ensures that there is a context for the children's work in Design & Technology; that they learn about real life structures and the purpose of specific examples, as well as developing their skills throughout the programme of study. Design and technology lessons are often taught as a block of learning so that children can consolidate and build on their skills in a given discipline within D&T.

The children are taught to:

Design

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
- generate, develop, model, and communicate their ideas through discussion, annotated sketches, cross-sectional diagrams, prototypes, pattern pieces and computer-aided design

Make

- select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining, and finishing) accurately
- select from and use a wider range of materials and components, including construction materials, textiles, and ingredients, according to their functional properties and aesthetic qualities

Evaluate

- investigate and analyse a range of existing products
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- understand how key events and individuals in design and technology have helped shape the world.

Technical knowledge

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- understand and use mechanical systems in their products

- understand and use electrical systems in their products
- apply their understanding of computing to program, monitor and control their products

Impact

We ensure the children:

- develop the creative, technical, and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users and critique, evaluate, and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook. Children will design and make a range of products. A good quality finish will be expected in all design and activities made appropriate to the age and ability of the child

We believe that D&T is experiential. We see skills develop and children take pride in and see the purpose of their design and making. We celebrate their success. The firm foundations and early D&T experiences offered at Newquay Primary Academy equip children for secondary and further education and prepare them for the working world.