

Design & Technology at Yarm Primary

At Yarm Primary, our intent is to provide children with a broad and balanced curriculum, which builds on their needs and prepares them for the future. We use a project-based approach to provide an engaging and purposeful context for learning where pupils are encouraged to apply the skills and knowledge in a range of subjects. We place emphasis on mastering key skills to provide a solid foundation for lifelong learning.

Within the national Curriculum:

When designing and making, pupils in KS1 should be taught to:

Design- Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.

Make- Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

Evaluate- Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.

Technical knowledge- Build structures, exploring how they can be made stronger, stiffer and more stable. Explore and use mechanisms [for example, levers, sliders, wheels and axles] in their products.

When designing and making, pupils in KS2 should be 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 and exploded 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 [for example, gears, pulleys, cams, levers and linkages]. Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]. Apply their understanding of computing to program, monitor and control their products.

Cooking & nutrition:

As part of KS1's work with food, pupils should be taught to use the basic principles of a healthy and varied diet to prepare dishes and understand where food comes from.

Within KS2 pupils should understand and apply the principles of a healthy and varied diet. Prepare and cook a variety of predominantly savoury dishes using a range of

cooking techniques and understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

To implement the offer children are supported in developing their skills through discrete topic links or more explicit sequences of work based on famous buildings/structures and designs. It also supports children in critiquing, evaluating and testing their ideas and products and the work of others.

Typically, Clubs allow for further promotion of skills in Art & design – KS2 Feeling good at Art Club; Craft Club; Knitting Club etc. with work being displayed in communal areas for a wider audience with links made to local gallery visits.

Children are also exposed to the work of a wide group of artists, designers and architects through quizzing and the ½ termly famous people/places initiative.

The architecture strand is chiefly linked to History e.g. features of a Roman Temple/Anglo Saxon village.

Local study also provides us with the opportunity to look at what is around us – Yarm Town Hall, the river, Yarm Fair...

We exploit opportunities to deliver food technology through thematic work. A focus on skills, in addition to promoting healthy lifestyles allows for greater depth across the themes and authentic links to Science and Healthy life styles.

To secure the offer we feel our children deserve and better reflect what is captured in curriculum maps, we will work on the following as short term priorities:

- Review the resources and share what is readily available with all staff.
- Promote the display of sculptures, prototypes, designs and structures in shared areas, to raise status within the curriculum.
- Promote visits to local sculptures/ buildings around the area.
- Reinstate ½ termly famous people/places initiative in all classrooms, with at least one architect/designer and manmade landmark to be included. This work to support regular general knowledge quizzing.

