

Design & Technology

Intent

Biddick Hall Infant and Nursery School follow the national curriculum for Design Technology and we aim to ensure that all our pupils:

- 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
- 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.

Implementation

Design Technology in our school is taught as a discreet lesson in Key Stage one, and in the Early Years, through the medium of play and exploration, making use of the learning environment both indoors and outdoors. Through the units of work, our children experience the key concepts of designing, making, evaluating and developing their technical knowledge.

Vocabulary is important for all our children's learning in Design Technology. We provide essential and challenging vocabulary to enable our children to ask questions, to evaluate products and to communicate their ideas. All our units of work include relevant vocabulary, which will always be on display on our curriculum wall, and is regularly referred to. Indeed, we have clear links to English, as our unit of work on rickshaws is used as a basis for instructional writing. In this way, our pupils expand the vocabulary choices that are available to them when they write.

Our units of work are built upon over time, to ensure children deepen their understanding. For example, children design, make and evaluate their own fruit salad as their introduction to preparing healthy food. This is then progressed in the summer term as they plan and cook a simple meal for the Head Teacher. This learning is explored in more detail in Science as the children explore the Eat Well plate and talk further about nutrition. We also celebrate Harvest Festival by cooking healthy, seasonal soup, inviting parents in to enjoy food together. Our children design and make their own Christmas card, and then the following year, the learning is further developed, as they include a moving part in their card, exploring levers and sliders.

We make good use of links with other subjects, and DT is strategically placed one week prior to Science in the summer term to strengthen these links. Products designed and built in DT (wind chimes and simple greenhouses), are then specifically used in Science, to monitor wind and to grow seeds in the Science units of work. This makes the learning purposeful and real and enhances understanding through STEM experiences.

We teach the children to choose and safely use from a range of equipment, for example hacksaws and glue guns. They are taught to assess simple risks and to work independently where possible, whilst being supervised. We design, make and evaluate exciting and purposeful products in our school, for example in our Chinese week, we explore, design and make our own Chinese dragon toy, practising the skills of folding and joining paper and adding embellishments to make them appealing. Leaver's t-shirts are designed and made, using buttons, ribbons, jewels, fabric pens and fabric crayons. These t-shirts are created specifically to wear at the end of the Key Stage 1 Summer concert by pupils and staff alike.

We broaden children's horizons and embed the learning further by providing a high quality after school Engineering club in Year 2 – which takes part in The South Tyneside Primary Engineer Programme. Staff have attended a day's training and were given the skills and resources to take part in the Engineering Competition, with schools across the region. We were very proud to have come runner up in our first year. This has not been able to happen more recently due to COVID, but the intention is to resume participation as circumstances allow. Children designed, made and evaluated a shoe-box vehicle, exploring different wheels to ensure a straight and speedy trajectory.

We use the online learning platform Purple Mash which has 3D design tools to enhance the learning in class. This can then be transferred home as pupils all have home logins, allowing access for all.

Impact

- Our curriculum will:
- Develop fundamental skills such as posture and grip to allow children to create and adapt products.
- Encourage children to evaluate their work and the work of others in order to develop products which meet a set criteria.
- Promote resilience and problem solving, allowing children to confidently tackle problems during the design and creative process.
- Foster high aspirations despite background or starting point.