Design Technology - Mrs Sarah Lawson

"The value of an idea lies in the using of it." –Thomas Edison

How is the content chosen?

At Newton Hal Infants' School, we believe that children learn best when they can personally relate to a need or problem. This enables children to embed learning and make connections, which leads to a greater depth of understanding within the subject. The content is therefore chosen to relate to everyday situations or issues relevant in their own world. We do make effective links with key themes in other areas of the curriculum, reflect expectations in the National Curriculum programmes of study and Early Years Foundation Stage (EYFS) framework, to engage the children. With being part of a strong, local community, links may also be chosen based upon the needs, interests or local events which are taking place in the community.

How do we ensure progression of knowledge and skills?

We are fortunate to have specialist teachers, who couple subject-specific knowledge, with passion for their subjects. We have communicated and worked collaboratively with outside subject-specialists to ensure what we offer excellent progression throughout our school. As a result we have worked together to make long term, medium term and detailed short term planning in place. This ensures sequenced and appropriate content for specific year groups, as well as a build-up of knowledge and skills throughout our school. Within these documents there are also opportunities for differentiation and adaptations, in order to meet the needs of all our children and personal cohorts to our school.

How is the subject taught?

At Newton Hall Infants' School Design Technology is taught as a brief or problem to be solved, through a five-step process;

Investigate- where children look at the current solutions available, how they are made and how they work.

Model- where the children make up a mock-up of what could be made, thinking about what needs to be done and knowledge needed, tools required and skills/techniques to learn or develop.

Design- where the children draw the product they aim to make, highlighting what tools and resources are needed.

Make- where children make the product, according to their research and informed design.

Evaluate- where children test out what they have made, see if it works/resolves the problem and reflect on any modifications or improvements that could be made in the future.

These various steps are highlighted to the children and new vocabulary is appropriately introduced. Reflecting on this process allows our children to gain a deeper understanding of why we do things and the process we follow.

This can be taught as a weekly session, or can be more beneficial to teach in a block to help embed learning and understanding. In Key Sage 1, the children will face three separate DT challenges, all covering different objectives taken from the National Curriculum, but building on previous knowledge and understanding of the *design and make process.*

There are links and opportunities that arise from other subject areas, particularly healthy eating and food. These are incorporated where possible and appropriate.

How is Design Technology taught in Early Years Foundation Stage (EYFS)?

Planning and teaching in EYFS is similar to that in Key Stage 1. The children are faced with a challenge and as a class, explore what they could do to resolve it, where they are expected to develop a specific set of skills and knowledge appropriate to their age. This is often beyond the expectations that are set out in the end of year Early Learning Goals, in order to prepare them for our KS1 curriculum.

As well as topic work and the teaching of valuable skills and knowledge, children in EYFS are given the opportunity to continually practise and embed their skills through the areas of provision set up in the indoor and outdoor learning environments.

How do we know children are making progress?

Ongoing assessments of the children's knowledge and skills are observed daily by the class teacher. Misconceptions are addressed and next steps carefully planned. Children's outcomes are compared to the subject specific skills and knowledge documents, as well as the year group expectations from the National Curriculum. Senior leaders and subject leaders gather an overview of children's learning and outcomes through monitoring activities. Regular assessments are collated for children in EYFS and Key Stage 1 which are used to plan appropriate next steps for their future learning, as well as provide an overview of learning within a subject area across the whole school.

Impact of our Design Technology teaching

At Newton Hall Infants' School we aim to give children opportunities for creative thinking and problem solving through the design and make process. We equip and encourage children to challenge product design by having the knowledge, skills and understanding of how and why products are made in the way they are. We address how these products could be modified and improved for a specific purpose in the world they will create and build in the future.

I remember when we used this grip in Year 1 to make our fruit salad.

...well at least the lion will be safe and can breath, but he can't be biting anyone through my gate. I kept the gaps really small.