Design Technology

Rationale

We want our children to strive to be carpenters, graphic designers, chefs, fashioner designers or even design technology teachers! We want them to embody our core values. Our children will always strive to be "Ready, Willing and Able" to learn and develop. We have a More Able Design and Technology Club which takes place weekly. The children have created some innovative pieces for e.g. chairs. Recently, Year 4 were set a textiles challenge to design and create a cushion. Some of the products were sold in the Good Shepherd Fund raising activity. Bringing Design and Technology alive in a modern and challenging and rapidly changing society is important at SMAAA!

Intent

The art curriculum at SMAAA promotes curiosity and a love and thirst for learning. It is ambitious and empowers our children to become:-

S-Sensitive M-Motivated A-Articulate A-Adventurous A- Adaptable.

It is ambitious and empowers our children to become independent and resilient. We strive to create a design technology curriculum that engages our learners with lifelong learning powers, enabling them to enjoy a creative and enriching curriculum.

We aim to equip them with not only the minimum statutory requirements of the design technology National Curriculum but to prepare them for the opportunities, responsibilities and experiences of later life.

We aim for our children to develop empathy and work together in collaboration, developing their engagement and resilience. We do this through creating a curriculum that embeds trial and error, flexibility, investigation skills and communication skills. For example, Yr 2 pupils creating their tie- dye fabrics.

We achieve this by providing a strong SMSC curriculum, with British Values and our core values placed at the heart of everything we do. This often feeds into the design technology curriculum. For example, using products developed and constructed in design technology lessons

(keyrings, pencil holders or cards) are used to raise money for charity at Christmas in the Christmas markets and during Good Shepherd activities during Lent.

We enrich their time in our school with memorable, unforgettable experiences and provide opportunities. For example gallery trips to Kirkby Gallery Exhibition of local industrial designers and their products named "Made On Merseyside," or entering local competitions e.g. .

Implementation

The design technology curriculum has been carefully built and the learning opportunities and assessment milestones for each year group crafted to ensure progression and repetition in terms of embedding key learning, knowledge and skills.

Staff also receive specialist INSET training during staff meetings. These Master Classes support their understanding of and develop their own skills. Initially pupils take inspiration from designers and technologists throughout history to help generate ideas. They explore and practice the practical skills and techniques involved in the topic. They use their sketchbooks and professional dairy to record their observations and to review and revisit ideas. Each discipline is taught and re-visited in each phase, at a progressively deeper level. For example, Yr 1 will be taught Free Standing Structures and Levers and Sliders then these themes will be repeated in Yr 3 in greater depth.

Design technology subject specific characteristics, which we expect the children to demonstrate, have been developed and shared with all stakeholders. These characteristics underpin all work in DT and form a focal point for exhibitions and provide a common subject specific vocabulary for staff and pupils. These characteristics are:

- Significant levels of originality and the willingness to take creative risks to produce innovative ideas and prototypes.
- An excellent attitude to learning and independent working and passion for the subject and knowledge of, up-to-date technological innovations in materials, products and systems.
- The ability to use time efficiently and work constructively and productively with others.
- The ability to carry out thorough research, show initiative and ask questions to develop an exceptionally detailed knowledge of users' needs.

- The ability to act as responsible designers and makers, working ethically, using finite materials carefully and working safely.
- A thorough knowledge of which tools, equipment and materials to use to make their products.
- The ability to apply mathematical knowledge.
- The ability to manage risks exceptionally well to manufacture products safely and hygienically.

We empower our staff to organise their own year group curriculums under the guidance of our subject leaders. Teachers are best placed to make these judgements. Staff develops year group specific long-term curriculum maps which identify when the different subjects and topics will be taught across the academic year. The vast majority of subjects are taught discretely but staff make meaningful links across subjects. They link prior knowledge to new learning to deepen children's learning. For example, in Year 4 when the children explore 'Electrical Systems - Simple Circuits and Switches' they also tackle electricity in science. Our short-term plans are produced on a weekly and daily basis. We use these to set out the learning objectives for each lesson, identifying engaging activities and resources which will be used to achieve them.

In most subject areas we encourage staff to teach a weekly lesson however this is not always the case for design technology.

Impact

We use both formative and summative assessment information in every design technology lesson. Staff use this information to inform their short-term planning and short-term interventions. This helps us provide the best possible support for all of our pupils, including the more able. The assessment milestones for each phase have been carefully mapped out and further broken down for each year group. This means that skills in design technology are progressive and build year on year.

Assessment information is collected frequently and analysed as part of our monitoring cycle. This process provides an accurate and comprehensive understanding of the quality of education in design technology. A comprehensive monitoring cycle is developed at the beginning of each academic year. This identifies when monitoring is undertaken. Monitoring in design technology includes: book scrutinies, lesson observations and/or learning walks, pupil/parent and/or staff voice.

All of this information is gathered and reviewed. It is used to inform further curriculum developments and provision is adapted accordingly.

The next design and technology monitoring will take place in Spring 2020.

At SMAAA our children are designers and technologists!

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Willing
Able

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