

## Design and Technology – 2023 – 2024

St. Michael's Nursery and Infant School

Subject Lead - Mrs. Candice Regan – Training Lead – Miss. Shelley Lofthouse

Here at St. Michael's Design and Technology forms an important part of the curriculum. Through this subject children can deepen their understanding of mechanisms, design and materials, as well as respond creatively and collaboratively to issues that are relevant to them. Through engaging and unique lessons we encourage our children to reflect critically upon their creations and ideas, equipping them with invaluable evaluation skills. We feel it is vital to nurture these skills so that children can learn how to become resilient and independent thinkers.

Design and Technology also helps us to explore other areas of the curriculum in a fun and exciting way. It aids us by making subjects such as maths, science and art more understandable and easier to digest.

This policy sets out a framework within which teaching and non-teaching staff can work, and gives guidance on planning, teaching and assessment.

### Aims

The aims of Design and Technology are to ensure that all of our pupils:

- Develop their technical, practical and creative skills within a context that is relevant to them.
- Enhance their IT skills so that they can participate in an ever-developing technological world.
- Can learn about the importance of nutrition, food safety and apply these principles when cooking.
- Build upon and develop their knowledge so that they can create high-quality prototypes for various users and purposes.
- Can confidently critique and evaluate their work, adjusting if necessary.
- Work effectively in a team and respect the strengths, talents and contributions of their peers.
- Can access other areas of the curriculum in an exciting and relevant manner.

### Curriculum

Our curriculum recognises that all children are different, therefore we adhere to a broad and balanced programme whereby the abilities and development of each child is taken into account. We adopt a child-centric approach, meaning that every child can access exciting and engaging lessons in a way that is best suited to them. We subscribe to a 'Design, Make, Evaluate' policy that lends itself to flexible planning to meet the needs of your child.

Through Design and Technology your children will have the opportunity to master a range of skills, attitudes and knowledge. They will enhance their vocabulary and understanding and become more independent learners.

### Early Years

Design and Technology forms part of the learning that children acquire under the 'Understanding the World' branch of the foundation stage curriculum. This could be delivered as either a child-initiated or adult-led approach. We will encourage your child to learn through 'hands on' experiences that assist to embed new learning and allow the children to make sense of this in a

context that makes sense to them. Through observation, exploration and promoting critical thinking, your child will make decisions and be able to state/show the reasons behind this. Some examples of Design and Technology in EYFS include:

- Exploration: Your child will be encouraged to dismantle an object so that they can learn how everyday objects work.
- Discussion: Children will have the opportunity to voice their evaluative skills by identifying what a safe or unsafe practice may be (and why), or talking about different flavours or textures. They will also have the opportunity to record their findings through paintings, mark-making or making a model.
- Creating: Pupils will be able to make rudimentary prototypes such as a bag made from various materials that needs to be able to store fruit.
- Using a range of tools: Children will be able to explore scissors, tape, glue etc. so that they can experiment and use their own judgement to select which material would be best suited to a specific task.
- Cooking: Through the provision we will help your child to understand concepts such as pouring, measuring and mixing. To cement this new learning all of our children will have the opportunity to design and/or cook healthy treats.

### Key Stage 1

Moving into Key Stage 1 our pupils will build upon the solid foundation they have created within EYFS and embark upon a deeper dive into Design and Technology. Throughout Years 1 and 2 your child will become accustomed to the 'Design, Make and Evaluate' process that underpins our child-centric approach.

Some examples of Design and Technology in Key Stage 1 include:

- Researching similar products in anticipation of designing a new product-highlighting what works well and how things could be improved.
- Working collaboratively to create a product that the class has identified as vital e.g. they need something to transport essential items between classrooms.
- Designing prototypes that would benefit them as an individual, based upon a particular criteria.
- Evaluating their own/others creations with the aim of improving them.
- Using a variety of mediums (video recordings, journals, numerical patterns), to record/gauge a specific success criterion.

### Teaching and Learning

At St. Michael's we incorporate a variety of teaching and learning strategies. Our aim is to develop knowledge, creativity, skills and evaluative competence amongst our pupils. We believe that children thrive in Design and Technology when they:

- Have access to a variety of tools.
- Can research in a multitude of ways e.g., guest speakers, the internet, books and most importantly their OWN EXPERIENCES.
- Have the opportunity to work collaboratively or in isolation (deepening upon the stimulus).
- Can combine Design and Technology with areas such as Maths, IT and Science so that they can see the 'bigger picture.'

## Planning

Design and Technology is carefully planned and taught independently and alongside subjects such as Maths and IT. We plan our curriculum over a two-year cycle in Key Stage 1 to engage and excite all of our learners. Our long-term and medium-term plans can be found online and detail the skills and themes to be covered. We will provide an appropriate and well-balanced amount of work across each term.

## Assessment and Monitoring

We are constantly monitoring the progress of each of our pupils here at St. Michael's and assessment is paramount with regards to planning, differentiation and development. Regular monitoring and assessment mean that intervention and feedback can be actioned promptly. We assess summatively against the requirements set out in the National Curriculum, ensuring that your child receives a thorough and well-rounded education in Design and Technology. Every term our curriculum leaders will undertake work-sampling, lesson observations and planning scrutinies to ensure that all requirements are met and that any issues regarding the quality of teaching can be addressed swiftly. At St. Michael's our pupil's learning comes first and we strive for high quality practice.

## Resources

We are fortunate enough to have access to the internet, smartboards and high-quality tools at St. Michael's. To compliment this the staff also ensure that appropriate visits and key speakers are made available to supplement your child's learning. Design and Technology is a 'hands on' topic that benefits from immersion in a variety of ways e.g., visits to shops, a visit from a designer, engaging with interactive media and construction using new and exciting materials.

## Health and Safety

Children benefit from a design and Technology curriculum that allows plenty of opportunities to 'Design, Make and Evaluate.' The technical and physical requirements of this subject mean that we will always have your children's physical and emotional wellbeing at the heart of everything we do. Therefore, our staff will meticulously and rigorously plan our lessons to ensure that health and safety requirements are met at all times.

## Equal opportunities, Inclusion and Differentiation

All children regardless of race, culture, religion, social background, gender or academic ability, have equal access to Design and Technology in order to develop their critical, practical and evaluative skills.

We carefully plan, monitor and assess to ensure all of our pupils feel valued.

Learning is challenging, yet achievable by all children, whatever their abilities and differentiation is achieved by both work set and outcomes.

We aim to teach children to uphold where applicable, British Values and a mutual respect and tolerance of those with different faiths and beliefs.

Date of policy – Monday 11<sup>th</sup> September 2023

Date of next review – September 2024

