# Spring Design and Technology 2018

This policy should be read in line with The National Curriculum in England: Primary Curriculum https://www.gov.uk/government/publications/national-curriculum-in-england-primary-curriculum

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## The National Curriculum in England (2014)

## The Importance of Teaching Design and Technology

The National Curriculum (2014), clearly states that teaching Design and Technology plays a significant role in preparing our pupils for the future, quoting that,

*"Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values." It goes on to state that, "Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation."* (p.180)

At John Clifford School, we believe that children should be provided opportunities to develop understanding and skills that they can apply to a range of practical problems throughout their education and beyond. We believe that these skills should be acquired through a range of projects and we aim to inspire through our own enthusiasm and by imparting our knowledge in new and exciting ways.

## Aims and Purposes

The National Curriculum for Design and Technology aims to ensure that all 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.

## Our School Curriculum: Key Areas of Focus

- Provide opportunities to develop and practise practical skills associated with design and technology.
- Utilise the curriculum overview and 'I can' statements across the whole school.
- Increase the opportunities for the use of computing and ICT skills within design and technology.

## Equality of Access and Differentiation

Design and Technology is taught within the guidelines of the Chilwell Family of Schools Equality Policy. The Equality Act 2010, introduced the term 'protected characteristic' to refer to aspects of a person's identity explicitly protected from discrimination. Nine protected characteristics are identified:

- Race
- Disability
- Gender
- Age
- Sexual orientation
- Religion and belief
- Gender reassignment
- Pregnancy and maternity
- Marriage and civil partnership

We aim to give all our pupils the opportunity to succeed and reach the highest level of personal achievement and to promote the individuality of all our pupils irrespective of ethnicity, attainment, age, disability, gender or background.

All children have learning needs, including SEND and Gifted and Talented.

Our aim is to ensure that Design and Technology materials (including library books, classroom reading books, text books, magazines, newspapers and online materials) in school:

- are from a range of cultures, countries and religions;

- are not stereotypical in their depiction of different cultures, countries, religions, race, beliefs, gender, age, and abilities;
- reflect accurately a range of cultures, identities and lifestyles.

All staff have a responsibility for ensuring that Design and Technology materials are checked and monitored before use to ensure they meet these criteria.

## Our School Curriculum: Key Areas of Focus

Design and Technology in the Foundation Stage: Expressive Arts and Design: Technology, Expressive Arts and Design: Exploring and Using Media and Materials

In the Early Years Foundation Stage, children first learn about concepts of Design and Technology through using a variety of construction materials to achieve a planned effect. To achieve the Early Learning Goal in Exploring and Using Media and Materials, children need to **"safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function."** To achieve the Early Learning Goal in Technology, children need to, **"recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes."**

Design and Technology in Key Stage 1

In Key Stage 1, children follow the process of: Design, Make, Evaluate and also obtaining Technical Knowledge. This is achieved through a range of projects. Children also need to be exposed to cooking and nutrition and gain an understanding of food origin and how to prepare a healthy balanced diet.

Design and Technology in Key Stage 2

In Key Stage 2, children continue on their journey of learning through the Design, Make, Evaluate and Technical Knowledge acquisition process. Children will now need to enhance and embed their skills in order to use a range of tools and develop their understanding of aesthetics and specifications of design.

## Planning and Evaluation

All teachers are responsible for planning, evaluating and teaching Design and Technology. The National Curriculum (2014), stipulates the expectations which

form the long-term plan from which the teachers write medium term plans to achieve balance and coverage over a term or half term. The more detailed weekly/fortnightly short-term planning will focus on the teaching process. A curriculum overview has been devised which breaks down the coverage into year groups and does so through the creation of 'I can' statements. Teachers can refer to this to ensure accurate curriculum coverage.

## Assessment, Recording and Reporting

Short and medium-term assessment is the responsibility of the class teacher. The 'I can' statements can be used to highlight areas requiring revisiting and also to show areas of strength. Pupil progress is reported to parents in the topic area of reports and also commented on in parents' evenings.

## Links with Other Subjects

Learning about Design and Technology doesn't always occur within discreet lessons. At John Clifford School, we note that the world is constantly changing. In line with this, we have adopted STEM (Science, Technology, Engineering and Mathematics) as a curriculum area and we aim to teach children practical skills that they can apply in the future. Our philosophy is to arm children with an understanding of the world they are citizens of and prepare them for the future through creative and inspiring lessons and projects.

## ICT in Design and Technology

We use ICT widely in design and technology. Children are given the opportunity to practise skills and enhance their presentation using carefully-chosen software.

Within the Foundation Stage, children interact with a range of push and pull toys, stereos, cameras, IWB's and computer interfaces. Children see teachers using their computers to find information in order for them to understand the importance and use of computers in their world currently and also in their futures.

At both key stages children have the opportunity to:

- Locate and research information using the internet
- Record findings using text, data and tables
- Use digital cameras and tape recorders

- Explore a variety of activities and resources using the IWB (Interactive Whiteboard).

## Outdoor Learning in Design and Technology

At John Clifford School, we aim to enhance our Design and Technology curriculum and learning through the use of and exploration of our extensive outdoor environment. The nature area, pond and new outdoor classroom provide a variety of learning opportunities in a natural environment and promote eco-awareness throughout the school. Learning that takes place outside the classroom can improve pupils' teamwork, motivation and enthusiasm for the subject. We provide a safe, stimulating outdoor environment where space is used effectively to enable children to explore a challenging and engaging curriculum. Teachers use a range of interesting resources suitable to each child's individual needs. All pupils receive a wide range of opportunities to develop socially and emotionally as well as academically through outdoor learning and play. Children benefit from time with our Outdoor Learning teacher and opportunities are taken for him to impart his knowledge in order to develop the teaching staffs' confidence and creativity.

## The Role of the Design and Technology Leader

At John Clifford School, the Leader for Design and Technology is Kirsty Martin. Her role within school is leading Design and Technology is to:

- Inspire others to teach design and technology in a practical, engaging and challenging way.
- Monitor the effectiveness of design and technology within the school.
- Support teachers in their planning and strategies for classroom management.
- Keep up to date with any new, relevant government documents and disseminate new information.
- Ensure continuity and improvement of the teaching and learning of design and technology across the school by monitoring and professional development opportunities.
- Ensure that the design and technology assessment across the school is consistent.

## Resources

John Clifford School uses several resources for the teaching of Design and Technology and these are stored in the Science and DT cupboard. This cupboard is locked at all times due to the nature of the resources inside. A proportion of the budget is kept aside each year to allow staff to purchase consumable resources which have a short shelf life such as flour or margarine. Some resources are for children to use in their own projects and others are for teaching and demonstrating the skills and understanding required. Audits are carried out to see which resources are used effectively and teachers are asked to contact the leader for specific requests.

## Parental Involvement

The school actively encourages parents to support learning in Design and Technology through showcases of work which are available to be seen at Parents' evenings. We also invite parents and carers to attend a 'World Culture Day' where we have examples of projects on show and we also ask parents to share any of their own talents with the children.

## Risk Assessment

Teachers assess all activities and resources used in lessons in terms of the possible risk they may pose to children and adults. Any activity or resource deemed a possible risk is highlighted in red on teacher's planning and advice for best and safe practice is shared with children and adults taking part in the lesson. All lessons are planned in line with the school's General Risk Assessment Policy. A specific risk assessment for the teaching of Design and Technology is available for all teaching staff to access.

This policy was written in Spring Term 2018 and will be reviewed Spring Term 2019.