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**Design and Technology Policy**

There is something very special about Kirkby Church of England Primary School and we are incredibly proud of our unique children, supportive parents, inspirational staff and forward thinking governors.  Our aim is that we all work together to make Kirkby CE a safe, happy and fun place to learn. At Kirkby CE we have learning and high standards at the heart of all we do. We encourage all our children to achieve the best they can across every area of school, from the rich and broad curriculum to the wide range of extra-curricular activities. Our aim is for our children to be confident, caring, resilient, inquisitive young adults with a desire to learn and achieve the best they can, in all they do. Our children are wonderful ambassadors, so if you would like to know more about our school family then please contact the school and our children and I would be delighted to show you around and introduce you to everyone who makes Kirkby CE such a special place to learn.

**Rational**

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. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. 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. (NC 2013).

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| **Subject Aims and Objectives**   * to give children the opportunity to take part in creative and practical activities * to understand the importance of design and technology in the wider world * to develop imaginative thinking in children and to enable them to talk about what they like and dislike when designing and making things * to enable children to talk about how things work, and to draw and model their ideas * to explore computing as a means of design * to encourage children to be analytical and critical when they are considering and analysing products * to encourage children to select appropriate materials, tools and techniques for making a product * to develop knowledge and understanding of: materials and components; mechanisms and control systems; structures; existing products, and health and safety * to follow safe procedures when using equipment and tools * to explore attitudes towards the manmade world and how we live and work within it; to develop an understanding of technological processes and products, their manufacture and their contribution to society; * to foster enjoyment, satisfaction and purpose in designing and making things. |
| **Subject Organisation**   * Design and Technology lessons are planned so that children revisit and build upon skills, and progress is monitored against the National curriculum; * lessons reflect skills acquisition and practice and ensure that the act of investigating, making something and evaluating; * lessons provide a mixture of whole-class teaching and individual/group activities; * children are encouraged to evaluate their own ideas and methods, and the work of others, and say what they think and feel about them; * teachers will seek to take advantage of opportunities to make cross curricular links, particularly with science and mathematics; * opportunity within lessons to work on their own and collaborate with others, on projects in two and three dimensions and on different scales; * use ICT effectively to support teaching and learning in Design and Technology will be planned for and used as appropriate.   **Adaptive Teaching**  We aim to provide for all pupils so that they achieve as highly as they can in Design and Technology according to their individual abilities. We will identify which groups or individual pupils are underachieving and take steps to improve their attainment. Gifted pupils will be identified and suitable learning challenges provided.  All pupils are provided with equal access to the Design and Technology curriculum. We aim to provide suitable learning opportunities regardless of gender, ethnicity or home background.  **Role of the Co-ordinator**  The subject leader is responsible for improving the standards of teaching and learning in Design and Technology through monitoring and evaluating : Monitoring will take place in line with the School Monitoring time table and represent all areas identified.   * Pupil progress * Provision including intervention groups or additional time allocated * Quality of the learning environment * Deployment of support staff   The role will also include:   * the co-ordination of Design and Technology policy development and ensure skills progression and continuity throughout the school; * take the responsibility for the purchase and organisation of resources; * keep up to date with developments in design and technology education and circulate new information to colleagues as appropriate; * build up a portfolio to share with others demonstrating the learning processes being done in school; * supporting colleagues in the teaching of design and technology; * provide a strategic lead and direction for the subject in the school.   **Assessment and attainment targets**  Work will be assessed in line with the assessment policy and the National Curriculum. The National Curriculum states, “By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.” |

**Key Stage One**

**Design:**

* design purposeful, functional, appealing products for themselves and other users based on design criteria
* generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

**Make:**

* select from and use a range of tools and equipment to perform practical tasks such as cutting, shaping, joining and finishing
* select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

**Evaluate:**

* explore and evaluate a range of existing products
* evaluate their ideas and products against design criteria

**Technical knowledge:**

* build structures, exploring how they can be made stronger, stiffer and more stable
* explore and use mechanisms, such as levers, sliders, wheels and axles, in their products.

**Cooking and Nutrition:**

* use the basic principles of a healthy and varied diet to prepare dishes
* understand where food comes from.

**Key Stage Two**

**Design:**

* use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
* generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design

**Make:**

* select from and use a wider range of tools and equipment to perform practical tasks, such as cutting, shaping, joining and finishing, accurately
* select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

**Evaluate:**

* investigate and analyse a range of existing products
* evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
* understand how key events and individuals in design and technology have helped shape the world

**Technical knowledge:**

* apply their understanding of how to strengthen, stiffen and reinforce more complex structures
* understand and use mechanical systems in their products, such as gears, pulleys, cams, levers and linkages
* understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs, buzzers and motors
* apply their understanding of computing to programme, monitor and control their products.

**Cooking and Nutrition:**

* understand and apply the principles of a healthy and varied diet
* prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
* understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.