

'At Holywell Village First School we have high aspirations for our children to become well-rounded and responsible future citizens. They are happy, independent and have positive self-esteem. Our children have a thirst for learning. They are curious about the world around them and are confident to 'have a go'. They are reflective learners who persevere and demonstrate good communication and social skills. They are thoughtful, caring and kind.'



Design & Technology Policy

Our Design & Technology Intent

Holywell First School's Design & Technology curriculum is designed with the **intent** of nurturing happy, independent learners who are curious and have a thirst for knowledge. Through our engaging Design & Technology curriculum, the children develop technical skills, problem solving and practical life skills to make them successful citizens. The children have the opportunity to be creative and imaginative through our broad and creative topics and acquire knowledge that is built upon prior learning and experiences in our school.

Our high quality design and technology curriculum supports and challenges children throughout the 'design, make and evaluate' process where children solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values.

Holywell First School design and technology **intent** is to ensure that all children:

- 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 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

The children acquire a broad range of subject knowledge, technical vocabulary and draw on disciplines such as mathematics, science, engineering, computing and art. Children learn how to take risks, becoming resourceful, innovative and enterprising.

Our Design & Technology Curriculum Implementation

D&T is **implemented** through meaningful and relative lessons in which, children are taught through the three phases of designing, making and evaluating their own products. As children progress through the school, they are presented with opportunities to develop these skills.

Foundation Stage

Through child initiated learning the children will:

- Recognise that a range of technology is used in places such as homes and schools.
- Select and use technology for particular purposes.

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- Build confidence to try new activities, and say why they like some activities more than others.
- Speak in a familiar group, will talk about their ideas, and will choose the resources they need for their chosen activities. They will say when they do or don't need help.
- Follow instructions involving several ideas or actions.
- Answer 'how' and 'why' questions about their experiences and in response activities.
- Handle equipment and tools effectively, including pencils for writing.

Year 1 and 2 Curriculum

Through a variety of creative and practical activities, children should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making.

Children work in a range of relevant contexts such as in the home and school, gardens and playgrounds, the local community, industry and the wider environment. When designing and making, children are taught to:

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 [for example, 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 [for example, levers, sliders, wheels and axles], in their products.

Year 3 and 4 Curriculum

Through a variety of creative and practical activities, children are taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making and work in a range of relevant contexts.

When designing and making, children are taught to:

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

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Make

Select from and use a wider range of tools and equipment to perform practical tasks [for example, 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 [for example, gears, pulleys, cams, levers and linkages]
- Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
- Apply their understanding of computing to program, monitor and control their products.

What Makes Our Design & Technology Unique –Cultural Capital

At Holywell First School we have worked hard to develop an inclusive curriculum with strong links to our community and church making learning engaging and relevant. The children have the opportunity to design make and evaluate through a range of diverse and community lead projects such as

- ☒ Summer fair
- ☒ Christmas fair
- ☒ Festival of Lights. (Celebration of Hinduism)
- ☒ Holywell Helpers Scarecrow Project

Equal Opportunities:

The teaching of D.T. is be in accordance with the present policy for equal opportunities. We aim to provide equal access to D.T. for those children with Special Educational Needs and those pupils who are gifted and talented through small group work, 1:1 support and differentiated activities and extension tasks.

Inclusion:

In order to provide all children with relevant and appropriate work at each stage through the 'low threshold, high ceiling' approach to lesson design.

- We set suitable learning challenges
- Respond to children' diverse needs
- Endeavour to overcome potential barriers to learning

Our Design & Technology Curriculum Impact

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Children will be become creative and reflective learners, who have a web of knowledge, vocabulary and skills linked to Design & Technology. Each topic ends with all children creating a final product; these products are a fantastic way for children to demonstrate the skills they have learnt. Throughout the school, children are given the opportunity to consolidate and evaluate their skills by creating their final product independently. Each lesson builds on the previous and children's skills are improved upon throughout each topic. Each Year group's skills and technical knowledge build upon the last to show a clear progression of skills throughout the school.

Subject and school leaders monitor the impact of our curriculum provision through completing:

- Regular monitoring
- Book Scrutiny
- Assessment monitoring
- Data analysis
- Pupil Voice

Health and Safety:

When working with tools, equipment, materials and food children are taught:

- About hazards, risks and risk control.
- To recognise hazards, assess consequent risks and take steps to control the risks to themselves and others.
- To use the information to assess the immediate and cumulative risks.
- To manage the environment to ensure the health and safety of themselves and others.
- To explain the steps they take to control risks.
- Children are supervised at all times during activities.
- The correct use of equipment and tools and the specific dangers of using heated or sharp resources.
- To follow hygiene procedures and obey rules during cooking sessions.

When appropriate, risk assessment will be carried out by the class teacher. Further details can also be found on the school Health and Safety Policy.

Signed Headteacher: _____

Chair of Committee: _____

Date: 27th January 2022