Design and Technology Policy Statement

'Preparing our children for tomorrows world'.

Introduction

Our curriculum has been organised and established in consultation with the subject leader and staff. It is continually developed through evaluation with and feedback from teaching and support staff.

DT is a subject within the National Curriculum 2014. This policy outlines the guiding principles by which this school will implement DT in relation to the teaching and learning of the National Curriculum 2014. It sets out a framework within which all staff can co-operate and gives guidance on planning, teaching and assessment.

This document is intended for all teaching staff with classroom responsibilities. It is also intended for Governors, parents, inspection teams, Local Authority Advisory/Improvement Officers and copies are available upon request from the school office and on the school's website

It is the role of the Headteacher and D&T Subject Leader to ensure that the policy is successfully implemented.

Intention of the Design and Technology Curriculum.

Design and Technology is an inspiring, rigorous and practical subject. Design and Technology encourages children to become independent, innovative and reflective learners. At Avondale, we offer experiences for children to use their creativity, to design and make purposeful products and systems that solve relevant and real life problems. As we teach Design and Technology through an iterative and innovative process, the children are constantly encouraged to evaluate and reflect upon their work, ensuring they are thinking critically**.**

It is paramount that children acquire the knowledge and skills needed to prepare them for our increasingly complex technological world and future developments. Children are encouraged to creatively problem solve as individuals, as part of a team and during teacher led activities, with the outlook that this has the potential for children to make positive changes to their quality of life and can face challenges with a positive mind set. Children will learn how to use a range of tools and equipment safely and correctly.

Personal and social skills are taught and applied throughout. Children have many opportunities to recognise and value their own and other people's creativity. 'High-quality Design and Technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.'

Our bespoke Design and Technology curriculum allows children to research and reflect on present and past Design Technology, its uses and impact. Children should be aware that there are many processes behind products that we use today. Where possible, we aim to link our work to a range of subjects such as maths, English, art, history, science, computing. This ensures that contextual learning is taking place and is memorable for our children.

Design and Technology also offers many links with the local community.

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 prepare simple healthy meals.
- build on their vocabulary and apply this accurately.

Implementation of the Design and Technology curriculum

We incorporate Design and Technology in a variety of ways in the Early Years.

Children are provided with many ongoing activities and opportunities.

All elements of Design and Technology are covered over the course of six years. These are covered at different levels in accordance to the children's understanding. The

Each year group has three Design Technology projects throughout the year which are thematically linked. It is at the teacher's discretion as to whether the lessons are completed weekly or are blocked and covered during a 'DT week' for example. Topics covered by the scheme of work include:

- Structures
- Pneumatic/ Linkages/ Levers
- Electrical Control
- Textiles
- Food Technology
- Mechanisms

These are mapped out on the subject long term plan and focus on knowledge. There is a Cooking and Nutrition unit in each year group as it is vital children have an awareness of preparing a healthy meal, as well as understanding how to work safely and hygienically.

DT is taught as part of the topic curriculum and so will link to the over-arching theme for the year group ie, Marvellous Me, Bright Lights, Big City.

It is taught by the class teacher who will follow the subject specific MTPs provided by the DT lead. *This ensures progression between year groups and ensures full coverage of the NC2014. Teachers are expected to adapt and modify the model plans to suit their children's interests, current events, their own teaching style, the use of any support staff and the resources available. We must ensure that any modification does not overlook any statutory requirements of NC2014.*

Health & Safety

All out of school activities will comply with the guidelines in the school Health and Safety policy. A risk assessment form will be completed by staff prior to any trips. This will identify any risks and procedures will be put into place to minimise these. Risk assessment for using certain tools are in place and updated yearly.

The contribution of Design and Technology to teaching in other curriculum areas

Design and Technology contributes to the teaching of English by actively promoting the skills of reading, writing, speaking and listening. They use organisational features to find texts and information. The children develop oral skills in Design Technology lessons through discussions and through recounting their observations of design tasks. They develop their writing skills through planning and evaluating their projects.

Design and Technology contributes to the teaching of Mathematics in a number of ways. They use standard units of length, mass and capacity, choose which ones are suitable for a task, and use them to make sensible estimates in everyday situations. They access scale and utilise a variety of problem solving strategies.

Computing provides pupils with access to a wide variety of information, images, discussions and exemplars which inform all aspects of Design and Technology. Computing also allows for improved inclusion as less able children are able to access and record information more readily. Both key stages will use Computer Aided Design (CAD) when suitable.

Children are taught to investigate and combine visual and tactile qualities of materials and processes and to match these qualities to the purpose of the work. Aesthetic aspects of products are usually directly linked to Art. Pupils should be taught to compare everyday materials and objects on the basis of their material properties, including hardness, strength, flexibility and magnetic behaviour, and to relate these properties to everyday uses of the materials. They also learn about push and full, friction, including air resistance. In KS2 children progress to construct circuits, incorporating a battery or power supply and a range of switches, to make electrical devices work

SEN

All pupils, including those with SEN's, are entitled to participate in D&T activities as prescribed by the National Curriculum. Certain provision may need to be made in terms of:-

- extended time to develop knowledge and understanding
- differentiated activities
- teacher/TA support
- adapted recording systems
- further aids or adapted equipment to allow access to practical activities.

For pupils who are working below year group expectations their progress is tracked using the P scales for foundation subjects.

Equal Opportunities.

It is the responsibility of all teachers to ensure that all pupils, irrespective of gender, ability and including gifted pupils, ethnicity and social circumstance, have access to the curriculum and make the greatest progress possible. Continuity and progression is facilitated by the structure and content of the Scheme of Work.

Inclusion

The school is committed to providing effective learning opportunities for all children. Our school aims to provide a History curriculum which meets the specific needs of individuals and groups of children. This includes the three essential principles of:-

- Setting suitable learning challenges
- Responding to pupil's diverse learning needs
- Overcoming potential barriers to learning and assessment for individuals and groups of pupils
- Using classroom assistants (where available) to support the work of individual children or groups of children.

Resources

Our school has a wide range of resources to support the teaching of Design and Technology across the school. Classrooms have a range of basic resources, with the more specialised equipment, supplies and other resources being kept in the central area storeroom. Basic tools are housed in the Design and Technology cupboard. This room is accessible to children only under adult supervision. Use of recyclable materials is encouraged in order to save costs.

Assessment and Impact

Childrens work will be evidenced in their Topic books. Teachers will assess children on the following: Evaluations and problems encountered, the make and design process, evidence of skills, tool and material choice. Due to the practical nature of design and technology, evidence of work undertaken by children can be in the form of teacher's notes, observations, videos or as a photographic record. These are collected by the subject lead, a sample of which is put together in a file/portfolio for teacher to use to support their assessment. Class teachers are expected to complete a 'Kahoot!' Assessment at the end of each unit. This checks the knowledge acquisition of the children over that unit. Work relating to the design process and end product are also valuable evidence and should be recorded in topic books. Children's end products are displayed around school.

Teachers make a termly summative assessment for each child which is collated and analysed by the subject lead. At the end of the year, parents are given an overall grade for their child's attainment in DT. Each teacher passes this information on to the next teacher at the end of each year.

Marking and feedback is completed in line with the school's marking policy. Each class teacher is required to provide examples of the Design Technology work taught throughout the year in order to build a class portfolio.

Monitoring and Evaluation

- Monitoring of the standards of teaching and learning in D&T is the responsibility of the subject leader in consultation with the head teacher. Planning, book scrutiny, pupil voice and lessons will be monitored as part of the Whole School Monitoring and Evaluation policy on a rolling programme. Key strengths will be identified along with issues for development. Any additional actions to be taken are noted on the D&T action plan for that school year. Subject leaders meet termly with the whole school curriculum lead to reported and discuss findings and feed-back at weekly staff meetings. The subject leader produces an Action Plan at the start of each year and an annual Subject Report for the SLT and Governors in the summer term.

The Role of the Subject Leader

The subject leader for DT is Aimee Robinson.

It is the role of the subject leader to:-

- Take the lead in policy development and the production of schemes of work designed to ensure progression and continuity in D&T throughout the school.
- Support colleagues in their development of detailed work plans and implementation of the scheme of work.
- monitor progress and attainment in D&T
- Take responsibility for the purchase and organisation of central resources for D&T.
- Keep up-to-date with developments in D&T education and disseminate relevant information to staff.
- Produces an Action Plan at the start of each academic year
- Produce a report to Governors at the end of each school year.

Their role is defined in detail in their subject leader job description and is linked to teacher appraisal.

Governors

- The link Governor for D&T is Paul Curry. They have the responsibility of meeting with the subject lead half termly to discuss data, development of the action plan and any other issues. The link Governor will then provide a report to feedback to the Full Governing Body. In addition to this, the subject lead will write a report to be discussed and accepted at the Curriculum Committee Meetings. This will be a termly report for core subject areas and a yearly report for foundation subjects.

Background Documentation

- This policy was informed by reference to National Curriculum documentation 2014.

Review

- This policy will be reviewed by the Headteacher and all the staff every two years and amendments presented to the Governing Body.

Date of last review : September 2019

Date of next review : September 2021