



DESIGN & TECHNOLOGY POLICY

UPDATED MAY 2016

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'High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.' (Design and technology programmes of study - DfE 2013)

1. Introduction

St Peter's Community Primary School aims to help all children to reach the highest possible levels of achievement in a happy and caring environment. We believe through the teaching of Design and Technology we are preparing our children for living and working in a rapidly changing technological society, where they can become good problem-solvers and innovators. The Design and Technology curriculum is planned so as to develop the children's creative, practical and intellectual skills, along with knowledge and understanding, in order that they can design and make quality products in response to real and relevant needs and opportunities.

This policy aims to set out how this can be achieved in Design and Technology.

2. Aims

By learning about Design and Technology in our school, we aim to help pupils to:

- Develop their designing and making skills
- Develop their knowledge and understanding
- Develop their capability to create high quality products through combining their designing and making skills with knowledge and understanding
- Explore values about and attitudes to the made world and how we live and work within it
- Nurture creativity and innovation through designing and making
- Develop an understanding of technological processes, products and their manufacture, and contribution to our society

3. Principles for effective teaching and learning of Design and Technology in our school

Design and Technology teaching and learning is effective when:

- It is set in the context of pupil's prior knowledge
- It promotes active learning
- It inspires, excites and motivates pupils to know more

4. Strategies for effective teaching and learning of Design and Technology

- A range of teaching methods should be used, i.e. whole class teaching, investigative work, practical work, small group study, individual study
- The method used must suit the purpose and the developmental need of the children
- Provide a meaningful context and a clear purpose, with links to other curriculum areas and topics
- Provide investigative, disassembly and evaluative activities, (IDEAS)
- Use focused practical tasks to enable the children to develop making and evaluate materials
- Ensuring the Designing and Making task incorporates and builds on children's skills and understanding

5. Strategies for ensuring progression and continuity

Design and Technology lessons fit in with year group topics which come from the IPC (International Primary Curriculum)

- a. The school has three levels of planning:
 - Long-term plans outline the broad content of the Design and Technology curriculum in our school and the time allocation for Design and Technology teaching. They set a framework for progression in pupil's learning and are found in the Curriculum Framework
 - Medium term plans are the detailed plans for what will be taught during each term, the ways in which the curriculum will be taught, resources used and the assessments that will be used to inform future planning and a summative guide of attainment. They have detailed learning intentions and outline the teaching and learning activities.

- Short-term plans are the day-to-day plans detailing what will happen during the week, the organisation of the lesson and the role of the adult. They show the learning intentions, differentiation, resources and assessment opportunities
- b. The curriculum co-ordinator checks that we cover the breadth and balance of the subject curriculum during the pupil's time at our school
- c. The subject co-ordinator checks that the children are building on previous work and that the year groups of children are making progress in the subject
- d. The class teacher checks that the curriculum is covered and that individual children are making progress

6. Links with other subjects, parents, schools, community

- Discussion is an aspect of the programmes of study for speaking and listening. Design and Technology provides an important way for children to develop their understanding of their own and others' work
- Design Technology is a cross curricular subject enabling the children to apply scientific, mathematical, ICT and art skills. Projects are planned to relate specifically to the Topics which also encompass other areas of the curriculum i.e., history, geography, music
- Art and Design can help children's learning in Design and Technology by developing skills for working with tools, equipment, materials and components
- The use of ICT can help by providing additional equipment, extending the possibilities for recording, developing their work further, providing a range of information sources and extending the possibilities for sharing their work

7. Resources for Design and Technology

There is a central store for materials, tools and equipment in the corridor cupboards and wardrobes. Some additional resources e.g. card and paper can be found in the art cupboard and draws outside nursery. The equipment is stored in labelled drawers and cupboards locked. Key

stage one construction is kept in labelled boxes in nursery wardrobes and outside sheds. Cooking equipment is kept in the school staff room cupboards.

8. Health and Safety

It is important that children and staff understand the various hazards involved with DT equipment. Children need to be taught to use tools correctly. An adult must supervise when using saws, hammers, drills etc. Glue guns should only be used by adults, but directed by the child. *(See Appendix 1).*

9. Roles and responsibilities of:

The Class Teacher

It is the role of the class teacher to implement the Design and Technology curriculum using the agreed practices in the Teaching and Learning Policy. It is the class teacher's responsibility to ensure that the curriculum is covered and that individual children are making progress.

The Co-ordinator

It is the responsibility of the Co-ordinator to review the Design and Technology policy annually. Part of the co-ordinator's role is to ensure that the curriculum framework is broad and balanced, and covers the requirements of the National Curriculum. The co-ordinator is responsible for ordering and maintaining the resources within the constraints of the school budget. The Co-ordinator identifies the needs of staff training after consultation with the staff and head teacher.

10. Evaluation of policy and practice

We will know this policy is effective when:

- Children find enjoyment, satisfaction and purpose through designing and making
- Children can be creative, flexible and show perseverance
- Children work both independently and collaboratively, listening to ideas and treating them with respect
- There is a progression of skills, knowledge and understanding through the school

11. Assessment

Pupils are assessed in all areas of Design and Technology; designing, making and evaluating. Teachers will assess the children at the end of each terms unit of work using the level descriptors set out in the National Curriculum. (See Assessment Policy)

12. Extra-curricular opportunities

Opportunities to support learning in Design and Technology include:

- Key Stage two after school cookery club
- after school art and craft club
- topic homework challenges in KS1
- whole school arts week
- Brighton Festival Children's Parade

13. Equal Opportunities

At St. Peter's all children, irrespective of gender have access to and are encouraged to participate in all areas of Design Technology.

Special Educational Needs and Disabilities (SEND)

St Peter's Primary School is committed to promoting Disability Equality and equality of opportunity for pupils with learning difficulties. When planning and teaching Design and Technology staff will make reasonable adjustments to promote equality of opportunity for disabled and non-disabled pupils. This could include;

- allocating adult support
- providing additional support materials (e.g. visual aids such as photographs, Makaton symbols, concept boards)
- providing alternative resources (eg. adapted scissors or other tools which are easy to manipulate, use of alternative materials for pupils with specific allergies)
- modifying tasks (e.g. working on the same objectives but with an alternative choice of media, recording work in different ways such as with a digital camera/ verbally/ with a tape-recorder)

Gifted and Talented

Children who are gifted and talented in D&T will be identified on the Gifted and Talented register. A support booklet will be sent to their parents for ways to encourage and extend the child's interests at

home. The class teacher is responsible for ensuring that weekly plans meet the needs of these children and provide sufficient challenge. Whilst the nature of the D&T curriculum is such that it allows for children to work at their own level and be creative, the teacher may need to encourage individuals with specific challenges. The learning objectives set out on the weekly plans may need to be adjusted or extension activities provided.

Policy Development

This policy was up-dated in May 2016.

It will be reviewed in 2017.

THE GLUE GUN

Many different types of glue gun are available, including a low temperature glue gun. The simplest type uses thumb pressure to force the end of the glue stick and is quite difficult to master. Some trigger controls use a water pistol/push action and are harder to operate than most common swivel action guns.

There is also a difference between metal and plastic nozzles and the build up of heat.

It is important for children to understand when a glue gun may be used and to ensure that the gun is kept in a safe place in the classroom when it is being used.

Remember that glue guns must be used by ADULTS ONLY and children must not have access to the gun. They can only direct the adult in its use.

The following questions need to be considered:

- Are you considering the economic factor of using expensive glue sticks as opposed to other methods of fixing?
- What materials will be glued together (only those that spring apart or structures/artefacts that require instant fixing)?
- Is there a risk of the power cable and hot nozzle coming into contact (consider installing Residual Current Circuit Breaker)?
- Have you checked that the cable is not trailing?

A glue gun is particularly useful for joining dissimilar materials. The use of this method of joining should be considered alongside a selection of adhesive tapes, sticky fixers, blue tack, glues, string and other fasteners to ensure that the best materials are used for the particular project.

RULES FOR COOKING

1. The safety fire blanket must be kept with the cooker **at all times**.
2. If cooking is taking place in the classroom, the cooker must be returned after use.
3. After use the cooker must be thoroughly cleaned and tidied.
4. Teaching Assistants may take a maximum of four children to cook in the canteen (see Health and Safety Policy).
5. Parent helpers must be supervised when cooking with a group of children.
6. Children must follow hygienic procedures and obey rules during cooking sessions.

THE ROLE OF CONSTRUCTION KITS

Discussion points:

- Why are we using construction kits?
- Do activity cards encourage an open-ended problem solving approach?
- Are children making their own activity cards?
- Are kits used for 3-D planning?
- Does the size of the kit influence the kind of constructions that can be made?
- Does the packaging encourage children to keep the kit pieces together and organised?
- Do the children play with their models when finished?
- Is the kit more attractive to girls or boys?
- Do the activity cards appeal to all children?
- Are any of the construction kits suitable for all ages?
- If so, how is this achieved?
- What qualities/attitudes do we hope to foster through the use of kits?
- Are kits used to model design proposals?
- Are the children sharing?
- Are children encouraged to familiarise themselves with the kit (following simple instructions, naming components, how to assemble, how to put away and check pieces)?
- Would some children benefit from step-by-step instructions recorded on an audio cassette?
- How is work with construction kits extended (painting, backdrop, layouts etc.)?
- Can any of the kits be used with reclaimed materials?
- What type of language is being used?
- What specific vocabulary will the children require when using these kits?

LANGUAGE DEVELOPMENT

BOLT	CATERPILLAR TRACK	MEDIUM	SINGLE	WHEEL
THREAD	TYRE	LARGE	DOUBLE	JOINT
WASHER	CYLINDER	SQUARE	DOME	PULL
NUT	SPRING	ROUND	WEDGE	PLASTIC
SPANNER	SMALL	BLOCK	COG	BRACKET
TESSELLATING	CONNECTING ROD	CUBE	CLIP	CORNER
BASE PLATE	AXLES	ANGLE	MOTOR	PIECE
TWIST	INTERLOCKING	FRAMEWORK	SPINDLE	SPACER
BEAM	MODEL	DOWELLING	TRIANGULAR	PIVOT
PULLEY	CHAIN-LINK	BELT	BATTERY	JOINING
LEVER	MECHANISM	GEAR	HINGE	

