MANOR BEACH PRIMARY SCHOOL
DESIGN AND TECHNOLOGY POLICY

REVIEW DATE: APRIL 2021
REVIEW DUE: APRIL 2022

"Design and technology is about making things that people want and that work well. Creating these things is hugely exciting: it is an inventive, fun activity."

James Dyson. Chairman, Dyson Ltd

MISSION STATEMENT

Inspiring minds, shaping futures.

Rationale

Design and Technology prepares pupils to participate in tomorrow's rapidly changing technologies. They learn to think and intervene creatively to improve quality of life. The subject calls for pupils to become autonomous and creative problem solvers, as individuals and members of a team. They must look for needs, wants and opportunities and respond to them by developing a range of ideas and making products and systems. As they do so, they reflect on and evaluate present and past design and technology, its uses and effects.

At Manor Beach Primary School children learn to produce practical solutions to real problems. Children develop technical understanding and making skills, learn about design methods and investigate their environment and the materials around them.

Aims and objectives

At Manor Beach Primary School we aim to:

- Engage the interests of all children and help sustain their motivation and enjoyment of learning.

- Maintain and develop the confidence and ability of all children to solve technological problems.

- Help develop the social skills necessary to work as a member of a team, as well as the ability to work independently when the situation demands.

- Develop skills by focusing on these key elements:- **Food, Textiles, Construction – 3D and Sheet materials – 2D.**

- Use the **Product – Purpose – User** model

    1. Focused practical tasks.
    2. Product evaluation and investigation. (We want children to develop awareness of the nature and application of technological products and how to evaluate fitness for purpose.)

3. Processes of designing and making. (We want children to be involved in purposeful design and make activities which result in the development of products.)

- Stimulate curiosity, imagination and creativity.

- Promote the ability to communicate ideas and information through a variety of media.

- Develop an appreciation of the importance of quality.

- Develop the ability to identify safety hazards and risks and take appropriate action against harm.

Teaching and learning style

Design and Technology lessons involve a combination of whole class, group and individual teaching. It has strong links with other subjects: - Computing, English, Mathematics, Science, Art, PSHE and Citizenship, Geography and Music. At Manor Beach our planning follows a '**Skills progression for Design and Technology**' to ensure there is appropriate progression of skills and adequate coverage across each year group. The QCA units of work and the Nuffield units can be used to support planning.

Differentiation is planned for by class teachers in order to ensure that all children take part to the best of their ability.

The children at Manor Beach undertake Design and Technology activities at least **twice a year**, but not necessarily as a weekly lesson. It may be blocked or included in 'Theme' planning. It is up to the individual class teacher to ensure that sufficient time has been allocated to each design and technology unit of work and that enough specific skills have been taught.

Lancashire Guiding Principles for Primary Design & Technology

- Key Stage 1 – 36 hours annually
  Key Stage 2 – 36 hours annually

The learning opportunities can be divided into three main areas.

1. **Investigative, disassembly and evaluative activities (IDEAs).**

   These activities provide opportunities for the children to explore existing products and to gain skills, knowledge and understanding which can be applied in a design and make assignment.

2. **Focused practical tasks (FPTs).**

   Focused practical tasks provide opportunities to learn and practice particular skills and knowledge.

3. **Design and make assignments (DMAs).**

   A design and make assignment provides an opportunity for the children to combine their skills, knowledge and understanding to develop products that meet a real need. (In general DMAs in Key Stage One will tend to be shorter in duration and, as children move towards the end of Key Stage Two, their designing and making will become more complex and therefore more time consuming.)

Throughout Key Stage 1, Lower Key Stage 2 and Upper Key Stage 2 all children will have experience of working on a design and make project in the following areas:-

- Food
- Textiles
- Construction – 3D
- Sheet Materials – 2D

In the Foundation Stage the children follow the objectives set out in the Early Learning Goals. Children's knowledge and understanding of the world forms the foundations for later work in Design and Technology. These early experiences include asking questions about how things work, investigating and using construction kits, developing making skills and handling appropriate tools and construction material safely and with increasing control.

Roles & Responsibilities

The Headteacher will:
- Actively support and encourage staff, praise good practice and support staff development through training.

The Design and Technology Subject Leader will:
- Monitor Design and Technology within the school.
- Keep up to date with new developments and inform staff.
- Encourage other members of staff in their Design and Technology teaching and give support where appropriate.
- Ensure that Design and Technology resources are available and appropriate to the needs of the staff.
- Ensure that Design and Technology keeps an appropriate profile within the school.
- Keep a portfolio for Design and Technology that will include photographs of pupils at work, examples of planning and examples of pupils' work.
- Audit resources regularly and take overall responsibility for equipment and resources.

The Class Teacher will:
- Be responsible for the planning and teaching of Design and Technology as set out in this policy.

The Teaching Assistant (TA), when available during Design and Technology lessons, will:
- Support the class teacher in delivering Design and Technology, and in particular support those children with Special Educational Needs where timetabled to do so.

- Collect and organize resources, if requested to do so by the class teacher.

Assessment

Assessments in Design and Technology are based on teacher observations and made at the end of each unit. The children's progress and achievement is assessed and recorded against age related expectations. Their experiences and progress will be documented in their written annual report to parents. Children are encouraged to evaluate their own work and describe what they might change if they were to revisit the activity.
The Design and Technology subject leader keeps evidence of the children's work in a portfolio. This demonstrates what the expected level of achievement is in each year of the school.

Resources

Manor Beach has a wide variety of resources to support the teaching of Design and Technology. Resources that are kept centrally are stored in the Art/Design and Technology storeroom. It is the responsibility of each class teacher to collect resources and then return them after use. If any resources become broken during use, the Design and Technology leader needs to be informed as soon as possible.

Health and Safety

- Children should be given suitable instruction on the operation of all equipment before being allowed to work with it.
  - **Craft knives**, quick cutters and rotary cutters should only be used by an adult/teacher in Key Stage One and the Foundation Stage.
  - Key Stage Two children may be permitted to use cutting equipment under supervision, using a cutting mat and wearing safety goggles.
  - **Bench hooks** or clamps must be used when **sawing** any material.
  - Any loose items of clothing/hair must be tucked in.

- Children should be strictly supervised in their use of equipment at all times.
  - Low temperature **glue guns** should only be used by an adult in Key Stage One and The Foundation Stage unless there is one-to-one supervision for a pupil.
  - Key Stage two children should use low temperature **glue guns** under supervision in a designated work area, wearing safety goggles.

- Children should be taught to respect the equipment they are using and to keep it stored safely while not in use.
- Children should be taught to recognise and consider hazards and risks and to take action to control these risks, having followed simple instructions.
- Children are taught how to follow procedures for **food safety and hygiene**

- Pupils and staff will take care to undertake appropriate hand washing and other hygiene related activities prior to preparing food.
- Pupils and staff working with food must wear aprons designated for cooking.
- All jewellery should be removed and hair tied back.

<u>Inclusion</u>

At Manor Beach Primary School we teach Design and Technology to all children, whatever their ability. Providing effective learning opportunities for all pupils is essential and this must include a Design and Technology curriculum, which meets the specific needs of individuals and groups of pupils. This will include the 3 essential principles of:
- Setting suitable learning challenges.
- Responding to pupils diverse learning needs.
- Overcoming potential barriers to learning and assessment for individuals and groups of pupils.

Design and technology offers the opportunity for children to achieve in a practical subject, as they are encouraged to communicate in ways that may not include writing.

<u>Equal Opportunities</u>

It is the responsibility of all teachers to ensure that all pupils, irrespective of gender, ability, including gifted pupils, ethnicity and social circumstance, have access to the curriculum and make the greatest progress possible. This may necessitate careful consideration of groupings when appropriate. Consideration of the technology of different cultures and times should be included.

<u>Monitoring and Review</u>

Monitoring may be carried out by the subject leader in the following ways:-
- informal discussion with staff and pupils
- collection of planning
- observation of displays
- observation of pupils work
- classroom observations

This policy should be read in conjunction with all other school policies and in particular the equal opportunities and race equality, assessment and teaching and learning policies.

The policy will be reviewed annually.

Policy agreed by:

DT Subject Leader:___C.Sefton_____   Date:___22.04.2021

Headteacher:_____   Date:_____

Policy review date:_____April 2022