



## **MORGANS PRIMARY SCHOOL AND NURSERY**

### **DESIGN AND TECHNOLOGY POLICY**

Design and technology is the creative application of knowledge, skills and understanding to design and make good quality products.

## Aims

Our aim is to teach children to develop their design and technology capability through combining their designing and making skills with knowledge and understanding in order to design and make products.

We aim to encourage children to:

- investigate design opportunities;
- develop design ideas;
- evaluate and modify their work;
- plan their work carefully;
- create good quality products;
- evaluate their work through observation and discussion;
- be aware of the ideas of others;
- value everyone's efforts.

We aim to ensure that:

- children are aware of all the safety procedures necessary when working with a variety of tools;
- all children have access to design and technology activities;
- there is progression in the planning of our work;
- each child's progress is monitored and assessed;
- parents are informed of their children's progress.

We aim to encourage the development of these values and attitudes:

- Creativity
- Confidence
- Flexibility
- Co-operation
- Responsibility
- Originality
- Independence
- Care
- Ambition
- Curiosity
- Enjoyment
- Pride

## Learning outcomes

At Morgans we are aware that Design and Technology is a creative process that combines intellectual and practical skills in purposeful activities. In order for the children to have access to this area of the curriculum and to fully develop their knowledge, personal qualities and potential the children will:

- Use a range of communication skills (verbal, graphical, modelling) to help their thinking;
- Be taught particular skills in order to be able to proceed effectively with their tasks;
- Be given opportunities that are challenging, motivating and relevant;
- Be set tasks that are enjoyable and purposeful;
- Be given opportunities to produce finished products of which they can be proud;
- Be encouraged to develop appropriate language used in design and technology.

## Planning, framework, continuity and progression

Design and Technology is planned within a context and where possible reference is made to other curricular areas. The National Curriculum sets out the following programme of study:

- Developing, planning and communicating ideas
- Working with tools, equipment, materials and components to make quality products
- Evaluating process and products
- Knowledge and understanding of materials and components

Continuity is ensured by all teachers conforming to the agreed mode of working as outlined in this policy. Progression is ensured by constant reference to the whole school map for design and technology and by each teacher knowing the content that they are required to teach. The following documents are used to inform our long, medium and short term planning:

- QCA scheme of work
- DATA session plans
- Data Help sheets
- Early Learning Goals

In the Foundation Stage and Year 1 work is often topic related and covered through 'knowledge and understanding of the world' (FS) and the QCA skills (Y1). In Years 2 to 6 three units are taught throughout the year with each unit lasting for approximately half a term. Lessons often take place in an afternoon session once a week but occasionally a whole day may be spent on a specific project (with sewing skills, for example) in order to manage resources more effectively and consolidate understanding.

Children will be given the opportunity to learn about:

- **Mechanisms**
- **Structures**
- **Food**
- **Textiles**
- **Electricity**
- **Control**
- Artefacts, systems and environments
- Products and applications
- Materials and components
- Quality
- Health and safety

In line with National Curriculum requirements children will be given opportunities to develop their design and technology capability through:

- IDEAS (Investigative, Disassembly, Evaluative Activities) – where children look at existing 'real life' products
- FPTs (Focused Practical Tasks) – where children learn and practise the skills and techniques needed for the rest of the unit
- D&M assignments (Design and Make assignments) – where children design and make a product

- EVALUATION – where children use and evaluate their work in the unit

(NB These will not be in equal proportions nor necessarily delivered in this order!)

### **Assessment, recording, reporting**

Assessment procedures are in line with the school's assessment policy. One unit per year should be assessed using the Foundation Subject Assessment Document (Yellow folder). Nursery Learning Records and Foundation Stage profile scores are used in Reception and Nursery.

Teachers observe children at work and use photographs and anecdotal notes to log progress. Children's planning and drawings are kept as evidence and photographs are taken of selected pieces of work.

Teacher assessment concentrates on the aspects of capability in order to inform future teaching and learning. Recording of significant learning outcomes is informative but minimal.

Children's work will be monitored carefully, by looking at the quality of teaching and learning and by comparing standards of achievement within groups and against national standards.

Reporting is by a short written comment at the end of each unit, which is kept in teacher's planning files, and parents are given a brief summary of children's effort and progress in the end of year reports.

### **Skills**

Within design and technology, with gradual progression through all Key Stages, children should be actively involved in the following skills:

- |                                                                      |                                                 |
|----------------------------------------------------------------------|-------------------------------------------------|
| • Investigating                                                      | • Working with materials and equipment          |
| • Analysing                                                          | • Learning and developing practical skills      |
| • Identifying needs                                                  | • Using resources and tools                     |
| • Stating intentions                                                 | • Making                                        |
| • Exploring, offering, communicating, developing and recording ideas | • Evaluating                                    |
| • Planning                                                           | • Making changes in light of ongoing evaluation |

### **The learning environment and classroom management**

Classrooms are organised in such a way as to promote the development of independent learning. They must be well organised, safe and tidy with good working practises being modelled and encouraged. The learning environment should be lively and stimulating and examples of children's work should be displayed that exemplify the standards that they are aiming for.

## **Role of the co-ordinator**

The co-ordinator will:

- Monitor continuity and progression in the planned units, ensuring a common approach to learning, monitoring and evaluation;
- Keep up to date with current practices and inform staff of relevant information;
- Support staff where necessary with planning and carrying out of activities;
- Ensure that tools are in good working condition and readily available for whole class work;
- Order stock and ensure that resources are available for each lesson.

## **Resources**

General resources and equipment are stored in the Design and Technology areas (outside the staff room in Queens and in the DT area in Mandeville). Construction kits and some year group specific resources are kept in classrooms. We have a food technology area for cooking and for storage in Mandeville Building. Children are able to use the kitchen ovens in Queens Building under adult supervision, and in negotiation with the Kitchen Staff.

For some units, children will be asked to bring cooking resources in to school to use as a part of their lessons.

Resources should be clearly marked and labelled in order to allow actual or visual access for staff and children.

The staff have a responsibility to inform the co-ordinator when equipment and resources need replacing. The co-ordinator is responsible for keeping the resource areas tidy and ordering stock.

## **Funding**

Managing the funding for design and technology is the responsibility of the head teacher, the bursar and the DT co-ordinator.

Each year financial consideration will be given to:

- New equipment investment;
- Equipment renewal;
- The purchase of sufficient consumable materials to cover the breadth of design and technology;
- Workshops lead by outside agencies.

In some instances, children may be asked to contribute towards the cost of their models if they are going to take them home.

## **Health and safety**

In our school we have adopted the guidance laid out in 'Safety Guidelines for Key Stage 1 & 2 Design and Technology'. All teachers should be familiar with the policy and all adults who work with children in any way connected with Design and Technology will be made aware of relevant health and safety implications and will have access to the above guidelines. Copies of these are kept in the Design and Technology areas. All adults will be made aware of the school's First Aid Policy.

Children should be taught how to use tools correctly and made aware of safety every time that they are using them.

Classes or groups should be supervised at all times.

Where necessary, prior to food work being undertaken, class teachers will notify parents to ascertain any allergy problems or cultural differences. This information is also held by the inclusion team.

Risk assessments will be carried out and reviewed by the co-ordinator and class teachers on a needs basis.

## **ICT**

All teachers will include the use of ICT in their planning so that the children are given opportunities to use ICT at all stages of the designing process – designing, making and finishing techniques.

The CAD (Computer Aided Design) programme 'Primary Design' is available on class laptops.

Robolab online is available on the HGFL (Username: morgans, Password: herts361). This is to be used as an introduction to the Robolab Bricks.

A class set of Robolab bricks are available for use in the classroom.

## **Inclusion**

Throughout all Design and Technology work care will be taken to differentiate tasks and teaching styles in order to take into account the whole spectrum of needs. In line with the school's inclusion policy, each child will have an entitlement to all aspects of the Design and Technology curriculum.

Mrs A Hanham  
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To be reviewed Spring 2012