Oak Meadow Primary School

Ryan Avenue, Ashmore Park, Wolverhampton, WV11 2QQ, 01902 558517, oakmeadowprimaryschool@wolverhampton.gov.uk

Policy: Design and Technology

From tiny acorns mighty oaks grow.

Approval Date:	
Signature:	
Review Date:	

Policy Name: Design and Technology

Policy Author: S.Dean

Creation Date: 03/11/19

Review Date: 03/11/21

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Curriculum Statement – Design and Technology

Intent

At Oak Meadow, we believe that the teaching and learning of Design and Technology is essential to prepare our pupils for the modern world. Children are encouraged to develop a greater understanding and knowledge of design and technology, as well as their safe use of tools and equipment. The Design and Technology curriculum at Oak Meadow enables children to develop their creativity and imagination as pupils design, make and evaluate products in a variety of contexts that complement, where appropriate, our bespoke curriculum. They will also acquire subject knowledge and skills that draw upon other areas of their learning such as mathematics, science, engineering, computing and art. Children at Oak Meadow will be encouraged to take risks and become resourceful, innovative, enterprising and capable pupils. Through the teaching of Design and Technology, we will show children the best inventions both past and present, and encourage them to develop a critical understanding of the impact of such inventions.

Implementation

Design and Technology at Oak Meadow is taught throughout the year as part of termly topics through a variety of creative and practical activities. Key skills and knowledge are mapped across each Year Group to ensure appropriate skills progression. Our children are taught to design, make, evaluate and develop their technical knowledge. Cross-curricular outcomes in Design and Technology are specifically planned for and strong links are made with Maths, Science and the Computing curriculum in order to contextualise the learning for children to achieve a deep understanding. Outcomes of pupils' work are evidenced within year group folders on our CloudW site and in each year group's floor book; the progress and attainment of all children is updated at the end of each unit of work via a foundation subject assessment tracker.

Impact

At Oak Meadow, our children will:

- Be able to test, critique and evaluate their products and ideas as well as those of others.
- Understand and apply the principles of nutrition and learn how to cook.
- Develop a good knowledge, understanding and appreciation of a range of materials and how they have multi-purpose uses.
- Build and apply a repertoire of knowledge, understanding and skills in order to design and make products for a wide range of users.
- Have a clear enjoyment and confidence in Design and Technology that they will then apply to other areas of the curriculum.

Skills Progression

The curriculum is intended to focus on essential core subject knowledge and skills. As a school, we have worked hard to ensure there is a detailed progression of skills for each subject from Early Years to Upper Key Stage 2. Our Skills Progression documents show the Year Group expectations in every subject and set out what will be taught in each Year Group based on the 2014 National Curriculum. Please refer to Appendix 1 for the skills progression for Design and Technology.

Assessment

Assessment for learning is continuous throughout the planning, teaching and learning cycle. Key technical knowledge is taught to enable and promote the development of children's Design and Technology skills. Assessment is supported by use of the following strategies:

- Observing children at work, individually, in pairs, in a group and in class during whole class teaching.
- Using differentiated, open-ended questions that require children to explain and unpick their understanding.
- Providing effective feedback both written and verbal.
- Moderation and monitoring of outcomes of work, to evaluate the range and balance of work and to ensure that tasks meet the needs of different learners, with the acquisition of the skills for each topic being clearly evidenced.

At the end of each topic, the acquisition of skills are evidenced by the class teacher on a foundation subject tracker. Each child's attainment and progress is formally reported to parents annually in the child's end of year report.

Early Years

In the Early Years Foundation Stage, Design and Technology is taught through the areas of learning referred to as Physical Development (PD), Understanding the World (UTW) and Expressive Arts and Design (EAD). We follow the Development Matters Early Years Curriculum which supports children in acquiring a succession of stepping stones that will enable them to achieve their Early Learning Goals.

Cross – Curricular Links

Design and Technology is a subject that touches on many other areas taught in schools, from Mathematics to Art. For example, a link may be made to compliment both Design and Technology and maths lessons to teach measurement/ quantities etc. Cross-curricular outcomes are identified prior to teaching.

SMSC Development

Spiritual Development is nurtured through the process of creative thinking and innovation which inspires our pupils to bring out undiscovered talents; this builds self-confidence and a belief in their unique abilities. We also seek to develop a sense of 'moral conscience', through thinking about the moral dilemmas raised in designing and making new products and the wider impact this may have on the environment as a result of the materials used. Design and Technology supports social development by providing opportunities for our children to work as a team, recognising others' strengths and sharing equipment safely when designing and making new products in order to maintain a safe, secure, learning environment. Design and Technology supports cultural development by encouraging children to research and reflect on ingenious products and inventions. Children look at the

diversity of materials and ways in which design technology has improved our quality of life in the past and present, and how it will most certainly benefit us in the future.

Diversity

Design and Technology investigates how different cultures have contributed to technology. It reflects on products and inventions, the diversity of materials and ways in which design can improve the quality of our lives. Design and Technology promotes equality of opportunity and provides an awareness of areas that have gender issues e.g. encouraging girls to use equipment that has been traditionally male dominated.

Planning and Resources

Design and Technology resources are stored centrally in the Design and Technology Resource Area. Our school library contains Design and Technology topic books to support children's individual research. In addition to this, each class has a 'floor book' to evidence some of the work created in lessons. Planning is achieved collaboratively with parallel-class teachers and plans are saved electronically for ease of access. Teachers identify the key knowledge and vocabulary that is to be taught, as well as the skills that are to be developed across each topic. These are detailed on each topic medium term plan, which makes explicit links to the National Curriculum 2014.

Subject Essentials

Each term children will have completed all Design and Technology objectives set out in their medium term plan. Work will be differentiated to ensure support and challenge for all pupils. Lessons will be evidenced in 'floor books' which may include a variety of recording methods such as written work, photographs, QR codes etc. Children will be expected to spell key Design and Technology vocabulary accurately and produce work in Design and Technology to the same quality as that presented in core curriculum lessons.

Role of the Subject Leader

The subject leader's responsibilities are:

- To ensure a high profile of the subject.
- To ensure a full range of relevant and effective resources are available to enhance and support learning.
- To ensure the progression of key knowledge and skills at the end of each age phase.
- To monitor Design and Technology across the school and ensure that key knowledge and skills are evidenced in learning outcomes.
- To monitor planning and oversee the teaching of Design and Technology, supporting teachers where necessary.
- To lead INSET to ensure further improvement and development of the subject.
- To ensure that the Design and Technology curriculum has a positive effect on all pupils, including those who are disadvantaged or have low attainment.
- To ensure that approaches are in line with current identified good practice and pedagogy.

Equal Opportunities

At Oak Meadow, we are committed to providing a teaching environment which ensures all children are provided with the same learning opportunities regardless of social class, gender, culture, race, special educational need or disability. Support for specific individuals is well considered and planned for, with consideration also given to how greater depth and further challenge can be implemented.

Inclusion

All pupils are entitled to access the Design and Technology curriculum at a level appropriate to their needs. Independent tasks, as well as teaching, are carefully adapted to ensure full accessibility, as well as to provide appropriate support and challenge for different groups of learners. The school manages peer relationships and makes full use of additional adults who are deployed effectively to ensure that identified children are able to make progress and achieve their full potential. Teaching takes account of children's own interests to ensure topic relevance. Opportunities for enrichment are also considered, to ensure a fully inclusive and engaging Design and Technology curriculum.

Role of the Governors

Governors are responsible for ensuring the effective delivery of Design and Technology. The subject leader will ensure that the Governing Body is kept up to date with initiatives that are relevant to the subject; action plans are shared with governors and the governors meet with subject leads and provide link governor reports to the governing body annually.

Health and Safety

The curriculum will be delivered in a safe and healthy manner and every effort will be taken to identify risks associated with a curriculum subject/activity (such as harmful equipment and materials) and the appropriate control measures will be implemented. Pupils will be educated about health and safety issues as and when the opportunity arises throughout the course of normal teaching.