BENGEWORTH CE ACADEMY

DESIGN TECHNOLOGY POLICY 2022-2023

Bengeworth
Multi Academy Trust

Brilliant People · Better Schools · Bright Futures

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Statement of intent

Curriculum Intent

At Bengeworth CE Academy, we provide a broad and balanced curriculum which is underpinned by our values and core beliefs and aims. Our intent and vision is to provide inspirational learning experiences that will ignite sparks within the children and enable them to develop as confident, articulate and happy individuals who achieve academic excellence, prepared for the wider world ahead of them.

We have taken great care to design our curriculum to achieve our vision and ensure that our values underpin it. We aim to ensure that the curriculum is exciting and challenging and reflects and nurtures children's interests and needs and celebrates the many successes of our children. Links between subjects are made to ensure there is an engaging and relevant context within which to learn and topics are used as the driving forces for each half term/term's focus. We strive to create and provide opportunities for the children to develop their creativity and imagination; promoting new interests and an awareness of the wider world. We are fully committed to teaching the vital life skills children need in order to be safe and happy in and out of school.

Subject Intent

Design Technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality Design Technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

The national curriculum for Design 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 cook.

There are four sub strands within our DT curriculum:
- Design
- Make
- Evaluate
- Technical knowledge

Cooking and Nutrition:
As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

The specifics for what each sub strand entails are detailed in the BAD (Basic, Advanced, Deep understanding) grids specific to each year group.

Legal framework

This policy has due regard to statutory legislation, including, but not limited to, the following:

- DfE 'Statutory framework for the early years foundation stage' 2021
- DfE 'Art' and 'Design Technology'' programmes of study: Key Stages 1 and 2' 2013

IMPLEMENTATION

All children will be taught the skills and principles of Design Technology as outlined in the programmes of study in the National Curriculum for Design Technology. Attainment targets to improve upon are indicated in the co-coordinators file under assessments. In Reception the children follow guidelines for creative development as set out in the Early Learning Goals. At Key Stage One and Two design technology is often rotated or sometimes combined with art and design depending on the relevant links with the class' current learning journey. Additionally, creativity should be encouraged in all subjects. Teachers ensure that investigating and making includes exploring and developing ideas and evaluating and developing work. Knowledge and understanding informs this process. Every opportunity is taken for the four key aspects of Design Technology to be integrated into learning; Design, Make, Evaluate, Technical Knowledge By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programmes of study, taken from the National Curriculum.

ELG Expressive Arts and Design

Expressive Arts and Design is one of the 4 key areas of the EYFS framework. It involves supporting children to explore and play with a wide range of media and materials, as well as providing opportunities and encouragement for sharing their thoughts, ideas, and feelings through a variety of activities in art, music, movement, dance, role-play, and design and technology.

Key Stage 1

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts (for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment).

When designing and making, pupils should be taught to:

Design: Design purposeful, functional, appealing products for themselves and other users based on design criteria generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.

Make: Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

Evaluate: Explore and evaluate a range of existing products, evaluate their ideas and products against design criteria.

Technical knowledge: Build structures, explore how they can be made stronger, stiffer and more stable, explore and use mechanisms [for example, levers, sliders, wheels and axles] in their products.

- Increasing their knowledge, skills and understanding of materials and processes.
- Pupils' experiences at this stage enable them to understand the diverse functions of art in the wider world.
- Pupils learn to improve their use of tools and become confident in using a variety of techniques.
- Pupils increase their awareness of the purposes of art from historical periods
- Pupils begin to ask themselves about the purpose, creation, materials, and significance of a variety of art works.

Key Stage 2

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].

When designing and making, pupils should be taught to:

Design:
- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

Make:
- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.

Evaluate:
- investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work understand how key events and individuals in design and technology have helped shape the world.

Technical knowledge:
- apply their understanding of how to strengthen, stiffen and reinforce more complex structures understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] apply their understanding of computing to program, monitor and control their products.

Roles and responsibilities

The subject leader is responsible for:

- Preparing policy documents, curriculum plans and schemes of work for the subjects.
- Reviewing changes to the national curriculum and advising teachers on their implementation.
- Monitoring the learning and teaching of Design Technology providing support for staff where necessary.
- Ensuring the continuity and progression from year group to year group.
- Encouraging staff to provide effective learning opportunities for pupils.
- Helping develop colleagues' expertise in the subject.
- Organising the deployment of resources and carrying out an annual audit of all related resources.
- Liaising with teachers across all phases.
- Communicating developments in the subjects to all teaching staff and the senior leadership team (SLT), as appropriate.
- Providing staff members with appropriate training.
- Organising, providing and monitoring CPD opportunities in the subject.
- Ensuring common standards are met for recording and assessing pupil performance.

The classroom teacher(s) is/are responsible for:

- Acting in accordance with this policy.
- Ensuring progression of pupils' Design Technology skills, with due regard to the national curriculum.
- Planning lessons effectively, ensuring a range of teaching methods are used to cover the content of the national curriculum.
- Liaising with the subject leader about key topics, resources and support for individual pupils.
- Monitoring the progress of pupils in their class and reporting this to parents on an annual basis.
- Reporting any concerns regarding the teaching of the subjects to the subject leader or a member of the SLT.
- Undertaking any training that is necessary in order to effectively teach the subjects.

IMPACT

Design Technology feedback is given verbally by teachers, support professionals and sometimes by peers. Some pieces of Design Technology evidence will have written feedback in the form of next steps to challenge and progress learning where appropriate. Assessment judgements are based on whether a child has met the Snake progression ladder statement or not. Assessments will be made by class teachers after each project and these will be used to support an end of year assessment judgement for effort and attainment. The subject leader will assess sketchbooks termly.

Achievements are celebrated in classrooms and corridor displays, by building in increasing connections with local galleries and artists in residence we aim to develop our future artists and their appreciation of the art around them. A further impact of this is that the school will achieve the ArtsMark Award (please see appendices) and children's artwork will be displayed at the yearly Voices and Visions events.

Design Technology lessons will follow a similar structure across school:
1. Researching and looking at focus designers / focus inspiration
2. Technical practice of design and construction skills linked to work taken from the focus designer/ inspiration focus
3. Practice ideas in sketchbooks or challenge skills books
4. Final piece building
5. Self / peer evaluation of the final piece

Equal Opportunities

- We are an inclusive school that ensures all pupils are provided with equal learning opportunities, regardless of social class, gender, culture, race, disability or learning difficulties.
- Teachers ensure that all children are able to access the curriculum through planned and differentiated lessons and resources.
- Teachers ensure that all children are able to access the Design Technology curriculum and support is provided through differentiated resources and focus activities where need is identified to both support and challenge students within their work.
- We ensure that all of our children have the opportunity to engage with arts and culture outside of school, we do this by providing opportunities linked with our Artmark award.

Teaching and Learning

At Bengeworth Academy, it is our aim to teach children to learn through their experiences. Therefore we aim to give children a wide range of opportunities to learn about Design Technology. These opportunities include;

- teacher prepared materials, practical and purposeful demonstrations,
- working with artists in residence and valuable and educational trips.

The teaching of Design Technology should be used as a tool to raise children's confidence and self-esteem and to allow them to express themselves. Lessons will be planned and organised in such a way that through guidance and modelling, children can work independently or in small groups to create a piece of work which is individual to them and expresses their own thoughts and feelings towards the task. Through modelling again, children will learn to evaluate their own and others work using informed comments and respond using the correct vocabulary.

Planning

Curriculum Maps are used to outline the learning journey of each year group over the year which identifies key texts, topics, learning objectives, enterprise opportunities, trips and visits and shows how skills and knowledge will be built upon from the previous year whilst providing an engaging and broad curriculum for the year.

Medium-term planning gives clear guidance on the skills and knowledge that we are developing within each topic/subject, showing progression from the previous year. Regular reviews take place every term.

Short term weekly planning journals are then used to map the journey within each week of the children's learning outlining key learning objectives, activities and opportunities.

Progression 'snakes' and B.A.D Grids can be used to evaluate progression within year groups and also between year groups building on knowledge and skills year on year.

Assessment and Reporting

- Pupils will be assessed and their progression recorded in line with the school's Assessment Policy.
- Assessments will be generally on an informal basis with teachers noting children's achievements and progression;;
- Evidence will be collected by each year group and handed to the coordinator at the end of the year, this can be physically or digitally. This will be used to check that appropriate skills have been taught and that progression is evident across all years.
- Assessment will be reported to parents annually in July as part of the end of year report.

Resources and Equipment

At Bengeworth we have a range of Design Technology resources. They can be found in the resource cupboard located in the corridor in the Year 2/Year 3 end or outside the Year 4 classrooms. In addition, a range of paper and card can be found in the reprographics room. Should we be running low on a resource, please inform the Arts Subject Lead, Mrs K Norden or fill out an order form.

Monitoring and review

- This policy will be reviewed annually by the subject leader and the Headteacher
- Any changes made to this policy will be communicated to all members of staff.
- All members of staff directly involved with the teaching of Design Technology are required to familiarise themselves with this policy.

The scheduled review date for this policy is **September 2023.**

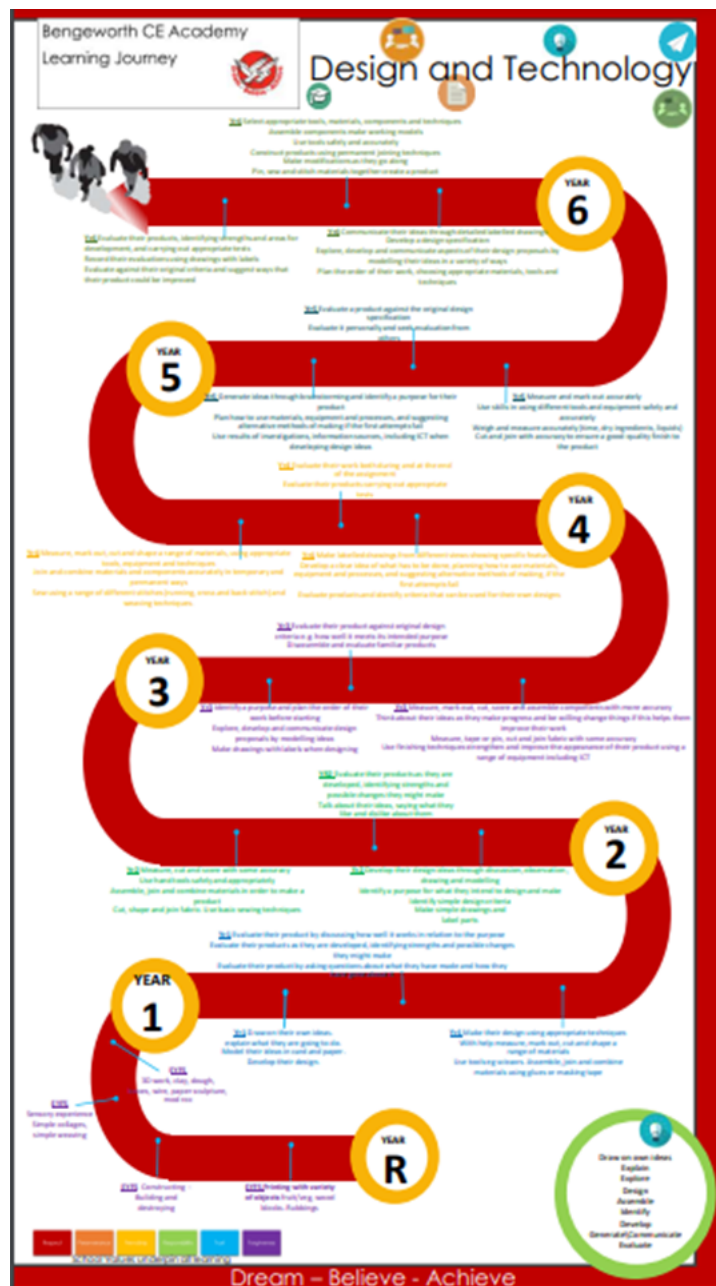# APPENDICES TO SUPPORT SUBJECT AREA INCLUDING RESOURCES

Appendix A - ArtsMark Award

Through our curriculum, and in an endeavour to secure the ArtsMark Award, the school aims to:
- engage with a variety of art forms, explore values, attitudes, feelings and meanings through the Arts Curriculum and also linked to our Global Theme approach.
- ensure all children and young people experience the richness of a broad arts curriculum
- provide every child and young person with opportunities to be inspired by the arts and achieve success through the arts
- allow children and young people to develop the ability to create, appreciate and make critical judgements about artworks.
- encourage children and young people to work independently and in teams, to share arts experiences and present artworks to others.
- support children and young people to develop an understanding of the role of the arts in society, including as a career.

- strengthen partnerships and build new partnerships which make the arts sustainable and bring benefit to children, young people and the wider community
- nurture artistic talent and develop children's young people's transferable life skills that arise from successful arts education, including the creative use of imagination and considered risk taking, co-operation, tenacity, flexibility and responsibility as well as leadership and entrepreneurial skills
- increase active and independent involvement in cultural opportunities

Appendix B – Curriculum snake

Appendix C – Example of BAD assessment grid

Art and Design Assessment

Years 3 (Millstone 2)

1. **To develop ideas – Key indicators**
   - Develop ideas from starting points throughout the curriculum.
   - Collect information, sketches and resources.
   - Adapt and refine ideas as the progress.
   - Comment on artworks using visual language.

Basic	Advancing	Deep
With Support;		*With growing confidence;*
• With support from a teacher, ideas are developed so that they lead to artworks. • When prompted, resources are collected to develop an idea. • With encouragement ideas are tried and sometimes refined. • There is some awareness of visual language.	• Ideas are developed so that they lead to artworks. • Resources are collected to develop an idea. • Ideas are tried and sometimes refined. • There is some awareness of visual language.	• Generally, a number of ideas are generated from a variety of starting points. • Generally, a good mix of sketches and other resources are collected to develop an idea. • Ideas are generally adapted and refined throughout the process of creating a piece. • Visual language is generally used correctly. • Ideas are effectively adapted and refined, and reasons for the changes explained throughout the process of creating a piece.

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