Bonneygrove and Millbrook Federation Curriculum Guidance

Design and Technology

At Bonneygrove & Millbrook Federation Primary schools, we believe that our Design and Technology curriculum prepares children to participate in the development of tomorrow's rapidly changing world. Our curriculum promotes high expectations and has been developed and made specific to the learners at Bonneygrove & Millbrook Federation Primary schools. Cultural capital is developed through experiential learning such as preparing and making a range of foods, including bread, salads and global foods, using tools to design and build products for a purpose, use research to inform and develop detailed design criteria. By evaluating past and present design and technology, they critically understand its impact on daily life and the wider world. Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, children design and make products that solve real and relevant problems within various contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on mathematics, science, engineering, computing, and art and apply them in their design and technology learning. Pupils learn how to take risks, becoming resourceful, innovative, enterprising, and capable citizens. Children will become autonomous and creative problem-solvers as part of a team or as individuals.

"In DT I like learning about Italian foods as we are learning about Italy in geography as well. "

Jacob – Year Five

IMPLEMENTATION

Skills and knowledge are carefully mapped across the school from Early Years to Year Six. In all year groups, children revisit previous learning and continue to build from that point. They have many carefully planned opportunities to recall and apply key information consolidating their learning at each stage. Children design products with a purpose in mind and an intended user of the products with knowledge drivers, focusing on the learning journey. Food technology is taught across the school, and children understand where food comes from, the importance of a varied and healthy diet, and preparing the food. Children are taught through real-life experiences, outdoor learning, visits, and our 50 things to do before leaving Bonneygrove show children the wider world. Cross-curricular activities are planned for linking the curriculum through mathematics, science, English and art. Outdoor learning activities and having whole school DT days and Ethics create real-life experiences for our children. These experiences allow knowledge to be built upon as the children journey through school, deepening their understanding.

SEND

At Bonneygrove & Millbrook Federation Primary schools, we make reasonable adjustments for all our children (including those with SEND). In our school, we ensure that all our children registered as SEND are not at a substantial disadvantage compared with their peers.
At Bonneygrove & Millbrook Federation Primary schools, we are guided by the SEND Code of Practice - Right Support, Right Place, Right Time March 2023. We recognise that each child has a specific need, including:

- Communication and interaction
- Cognition and learning
- Social, emotional, and health difficulties

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- Sensory and/or physical needs

The above needs will be addressed through quality first teaching, effective differentiation, use of resources (primary and secondary), individual interventions, small group interventions, specialist provision and other supporting agencies.

At Bonneygrove & Millbrook Federation Primary schools, we ensure children with SEND have every opportunity to succeed and recognise that additional support may be required to ensure they progress and attain in line with their peers. We do this by utilising various strategies- e.g.

SEND area of need	Barrier to learning	Strategies
- Hearing Impairment	- Difficulty in hearing instructions from teacher/peers - Filtering noise to hear what is important - Low self esteem - Difficulty with vocabulary	- Pictorial representations - Video - Vocab lists and explanations - Position within the class - Vocabulary lists - Check hearing aids and mini mic - Pre and post teaching
Visual Impairment	- May struggle with contrasting colours on the board	- Enlarged resources - Knowledge/graphic organisers - Technology - Training for staff
Dyspraxia (fine/ gross motor)	- Difficulty in recording in writing and diagrams - Cutting out and sticking in	- Knowledge/graphic organisers - Alternative ways of recording - Simplification of diagrams
Memory/ processing	- Difficulty recalling instructions - Difficulty recalling prior learning (long and short term) - Noise and movement – overstimulating - Sharing space and equipment with others - Understanding cause and effect - May struggle with empathy	- Knowledge/graphic organisers - Dual coding - Pre and reteaching

ASC	• Noise and movement – overstimulating • Sharing space and equipment with others • Understanding cause and effect • May struggle with empathy	• Visual representation • Knowledge/graphic organisers • Ear defenders if needed • Teaching explicit recognition of feelings • Matching pictures of feelings • Use of social stories
ADHD	• Waiting + frustration • Fairness • Organisation of resources • Maintaining attention	• Knowledge/graphic organisers • Step by step instructions • Dual coding
Cognition	• difficulty in understanding cause and effect • difficulty recording in a way which supports learning and retrieval	• Knowledge/graphic organisers • Dual coding • Word banks • Alternative methods of recording
SEMH	• Motivation • Participation • Team/partner work • Sharing materials and "air-time"	• Clear end points • Clear expectations • Modelling and explanations clarity • Be sensitive with certain subjects

"It is a very good subject; it is always fun and never boring. My favourite lesson in DT was making smores and pasta salads. I have also like making plushies."
Year Six

EAL

Supporting children with EAL
Children with English as an additional language need to hear English spoken by the adults in the setting in as many different contexts as possible. When the context has meaning for the child, they are more able to learn spoken English from the adult.

Our role is crucial in modelling the accurate use of English, noting the child's spoken vocabulary, and building on what the child already knows.

Some children go through a silent period. This can be for as long as 6 months. When they start to speak in English it will be more proficiently than you may expect, even in full sentences. The child will have been listening intently to adults and children in the setting and once they are confident with their initial speech, they will speak far more.

It is good for children with English as an additional language to be able to speak their home language in the setting and talk to providers who speak the same language if there are any. This will further aid them in learning English. Most children adapt to speaking more than one language. The security of knowing what resources will be available in each area, each day supports children's wellbeing and achievements in learning. Keep the provision consistent. Observing how the children respond will inform you when a change is needed. This may be to add something more, or a specific enrichment to extend the children's learning. Consider whether the home area, images displayed and books in the setting, reflect the child's home environment. Include books, songs and counting in home languages. Take sequences of photographs to show the child specific routines, such as, what happens at the snack table, how to tidy away the construction toys and a visual timetable of the session. Over time the setting becomes a secure place for the child, and they gain confidence in their play and interactions. Revisiting and re-proposing are beneficial for all children but especially for those acquiring English. Revisiting means you draw the child's attention to previous activities and learning where they have achieved. A prompt could be a photograph or video of them playing. It could be a sample of their mark making, a painting or a collage picture. The child can revisit by drawing over the top, and the adult sensitively describes their actions as they do this. In this way the child hears spoken language directly connected to their actions. Re-proposing is when you scribe a child's spoken dialogue and on the following day remind the child of their words. This is a launchpad for the child to either repeat what they said before or to extend what was said on the previous day. When exploring rhymes and songs make comparisons between words in English and in other languages. Older children who have grasped more than one language enjoy these opportunities. They love to play with words and translate from one language to another.

Helping children understand the setting.

Consider having:

- a visual timetable-introduced as it is happening
- feelings or emotions picture cards so children can label their own and others' emotions.
- photographs of areas, resources, peers and staff to support children to plan their session with an adult.
- story and song props used as often as possible.
- phonetically spelt key words in home languages to help you.

Using clear, concise English

When talking to children:

- be face to face.
- gain their attention first.
- demonstrate your meaning with actions.
- give thinking time without extra language input.

You can also use the 'say less and stress, go slow and show' approach. This means that you:

- say less: use short, simple sentences with proper grammar.
- stress what's important: make important words stand out with your voice.
- go slow: speak a bit slower and add pauses.
- show your meaning using non-verbal cues: use actions, gestures, objects, and pictures while speaking.

Using information technology

You may find it helpful to use:

- video clips and photos to share learning with group at review time.
- video clips and photos to share learning with parents and family.
- recordings of adults telling stories in the languages spoken by the children, including English

How this links to the other areas of learning

Real life experiences support children learning English because they hear spoken English in contexts that are increasingly familiar and meaningful to them. Children benefit from hearing well-loved songs, nursery rhymes, finger rhymes and stories as often as possible and with associated props. Exaggerate actions to give meaning to the words. Re-presenting core stories in as many ways as possible encourages children to re-enact stories in small world and drama role play. Eventually children will use the language from songs and stories in their own speech (communication and language and literacy). Visits to places and welcoming visitors into the setting are activities that support children in learning English (understanding the world). Books made using photographs of the child and their family support the child in feeling valued (personal, social and emotional development) as well encouraging the child to access books in the book area of the setting (literacy).

 "I like cooking and learning about how to make new recipes. As well as learn about food in different cultures."

Supporting pupil premium children

What is the most effective way to support disadvantaged pupils' achievement? Based on interviews with senior leaders, the NFER research found that schools which are more successful in promoting high attainment have a number of things in common. It identified seven building blocks of success.

1) Whole School ethos of attainment for all
2) Addressing behaviour and attendance
3) High quality teaching for all
4) Meeting individual learning needs
5) Deploying staff effectively
6) Data driven and responding to evidence
7) Clear, responsive leadership

Table 1: Support strategies for schools

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Small group additional teaching	
Less successful school	**More successful school**
Struggling pupils are taken out of English lessons to work on an online literacy programme, supervised by a TA who has received no specific training.	Pupils with similar needs are withdrawn from alternating non-core curriculum lessons for tailored support from a TA trained in literacy interventions.
Parental involvement	
Less successful school	**More successful school**
Staff provide pupils with homework books showing the day's assignments. Pupils take the books home. There is space for teachers and parents to leave comments about pupils' progress.	Higher level teaching assistants (HLTAs) visit community centres to talk to parents about the importance of learning. They show parents the curriculum pupils are covering and explain how parents can support their child to achieve.
Improving feedback between teachers and pupils	
Less successful school	**More successful school**
Teachers give pupils grades for their work.	The school has developed marking schemes which identify each pupil's strengths, areas to focus on and next steps. Pupils have time allotted during the lesson or tutor time to respond to the feedback and discuss it with teachers.

"It is fun, I like learning about cooking especially when we made apple crumble."

IMPACT

Our children will have gained knowledge and understanding of different skills and techniques required to problem solve by designing and creating various products using a safe approach through our design and Technology curriculum. Children will have an understanding of cross-curricular elements within the subject. They will also understand the importance of skills learnt in other areas of the curriculum and how they aid the design and making process, as well as how these techniques and skills will assist them not just at the next stage of their learning but in future life. The children will investigate and analyse a range of existing products and evaluate their ideas against their design criteria. They will consider the views of others to improve their work and understand how key events and individuals in design and technology have helped shape the world. Design and Technology Policy Role of the subject Leader The subject leader will monitor design and technology through curriculum walks. Standards of teaching and learning will be adjudged using work sampling, photographs of children at work and reporting findings to teachers of the curriculum walks and data review. The subject leader policy will be reviewed at this meeting. The subject leader will audit resources regularly and take responsibility for equipment and resources.

Role of the Subject Leader

The Subject Leader in collaboration with the Inclusion Coordinator will support the implementation of our new curriculum, monitoring across the school and providing relevant CPD.

The staff are responsible for:

- Delivering Design and Technology adhering to the DT policy and guidance
- Modelling positive attitudes to Design and Technology
- Monitoring progress
- Responding to the needs of individual pupils

Objectives

The following objectives derived from the above aims will form the basis of our decisions when planning a scheme of work. Assessment will also be related to these objectives:

• To develop pupils' enjoyment and interest in Design and Technology and appreciate its contribution to all aspects of everyday life.

• To develop technical understanding and making skills, learn about design methods and investigate their environment and materials.

• To encourage pupils to use their knowledge and understanding when developing ideas, planning, and making products and evaluating them.

• To develop a knowledge of the Design and Technology curriculum contained within the programmes of study of the National Curriculum. To build on pupils' curiosity and sense of awe of the natural world.

• To develop in pupils a general sense of enquiry, which encourages them to question and make suggestions and build upon their experiences of investigating objects around them.

• To encourage pupils to predict the likely outcome of their investigations and practical activities, identify what works well and what could be improved in their own and other people's designs. To draw on a developing repertoire of skills and knowledge in Design and Technology that will include:

• Developing, planning, and communicating ideas

• Gaining knowledge and understanding of materials and their components

• Carrying out focused, practical tasks that develop a range of techniques, skills, processes, and knowledge.

• Designing and making assignments using a range of materials, including electrical and mechanical components, food, mouldable materials, stiff and flexible sheet materials, and textiles

• Investigating and evaluating a range of familiar products, thinking about how they work, how they are used and the views of the people who use them.

• Allowing constructive conversation and language interaction between students

• Learning the importance of health and safety. To develop pupils' use of ICT in their Design and Technology studies.

• To give pupils opportunities to use ICT (video, digital camera, data logger) to record their work and store results for future retrieval throughout their Design and Technology studies.

• To give pupils the chance to obtain information using the internet.

Cultural Capital

DT is developed through our School Values and the following whole-school activities and events: Our children are exposed to the work of great designers, creating intrigue and curiosity around design. They develop a deeper understanding of the design process and what constitutes design.

Cross-curricular skills and links

Design and technology permeate every aspect of our lives, and we will relate them to all areas of the curriculum. We will emphasise the positive effects of Design and Technology on the world and include problems which some human activities can produce. We will also ensure that pupils realise the positive contribution of both men and women to design and technology and those of other cultures.

Continuity and Progression at Bonneygrove & Millbrook Primary Federation

Children in EYFS learn how to construct objects through outside and inside play.

During Key Stage 1, the children learn to think imaginatively and talk about what they like and dislike when designing and making. They build on their early childhood experiences of investigating objects around them. They explore how familiar things work and talk about, draw and model their ideas. They learn how to design and make it safer and use ICT as part of their designing and making.

During Key Stage 2, children work on their own and as part of a team on a range of designing and making activities. They think about what products are used for and the needs of the people who use them. They plan what must be done and identify what works well and what could be improved in their own and other designs. They draw on knowledge and understanding from different curriculum areas and use computers in a range of ways.

Equality of Opportunity

All children have equal access to the Design and Technology curriculum and its associated practical activities. The SLT, Class Teachers and TAs at Bonneygrove & Millbrook Federation Primary schools are responsible for ensuring that all children, irrespective of gender, learning ability, physical disability, ethnicity and social circumstances, have access to the whole curriculum and make the greatest possible progress. Where appropriate, work will be adapted to meet pupils' needs and, if required, the extra support given. More able pupils will be given suitably challenging activities. Gender and cultural differences will be reflected positively in the teaching materials used. All children have equal access to the Design and Technology Curriculum, its teaching and learning, throughout any year and monitored by analysing pupil performance throughout the school to ensure no disparity between groups.

Health and safety

Children and staff will undertake appropriate hand washing and other hygiene-related activities to prepare food. Children and staff working with food must wear aprons designated for cooking. All jewellery should be removed, and hair tied back. Glue guns at Bonneygrove & Millbrook Federation Primary schools, low-temperature glue guns should only be used by an adult in Key Stage One and EYFS unless a child has one-to-one supervision. Key Stage two children should use low-temperature glue guns under supervision in a designated work area, wearing safety goggles. Craft knives - An adult/teacher should only use craft knives, quick cutters, and rotary cutters should only be used by an adult/teacher in Key Stage One and the EYFS. Key Stage two children may use cutting equipment under supervision, using a cutting mat and wear safety goggles. Sawing Bench hooks and clamps must be used when sawing any material. Safety goggles must be worn, and any loose items of clothing/hair must be tucked in.

Assessment for Learning, recording, and reporting.

Teachers will assess whether children are working at/above or below the expected level for their age based on their understanding and application of the content of the National Curriculum 2014. Progress and attainment is reported to parents through parents' evenings and end of year reports. Marking for Improvement Throughout the school, teachers will assess whether children are working at/above or below the expected level for their age - based on their understanding and application of the content of the National Curriculum 2014. Progress and attainment are reported to parents through parents' evenings and end of year reports. Marking for Improvement (see policy) Much of the work done in Design and Technology lessons are practical or oral, and, as such, recording will take many varied forms, thus making marking different. However, written work must be marked regularly and clearly to aid progression and celebrate achievement. When appropriate, pupils may be asked to self-assess or peer assess their own or others' work. Marking for improvement comments in a child's book must be relevant to the learning objective to help children better focus on future targets. Resourcing Specialist equipment and those posing a potential safety risk will be held centrally and staff access when required.

Marking for Improvement (see policy)

Much of the work done in DT lessons is of a practical or oral nature and, as such, recording will take many varied forms thus making marking different. It is, however, important that written work is marked regularly and clearly, as an aid to progression and to celebrate achievement. When appropriate, pupils may be asked to self-assess or peer assess their own or other's work. Marking for improvement comments in a child's book must be relevant to the learning objective to help children to better focus on future targets.

Resourcing

At Bonneygrove and Millbrook Federation School, we make reasonable adjustments for all our children (including those with SEND). In our school, we ensure that all our children registered as SEND, including the provision of auxiliary, are not at a substantial disadvantage compared with their peers. All specialised equipment needed to support the children, and their needs is purchased before to ensure every child is able to access the curriculum.