**Design & Technology Intent**

At Bedford Drive Primary School, we have constructed an ambitious curriculum that follows the content of the EYFS statutory framework and the National Curriculum. We use DATA’s ‘Projects on a Page’ to support our planning.

The Design and Technology curriculum feeds into the whole school curriculum structure of ‘Self’ ‘Society’ and ‘Global’. It builds upon prior knowledge, development and understanding. Our Design and Technology curriculum is a knowledge-engaged one, meaning that children learn skills alongside knowledge, ensuring that both are explicitly developed.

Values are a crucial element of our curriculum and are woven into Design and Technology, along with our UNICEF Rights Respecting School status. We provide opportunities for children to discuss opinions about their own work and the work of others; to respect and value the opinion of others as well as working collaboratively on projects. Children learn how to respectful towards each other’s ideas and abilities.

We have planned a range of experiences for pupils to enhance the Design and Technology curriculum. These experiences such as participating in workshops or engaging with visitors, such as the ‘Fun Food Chef’ are opportunities which children may not normally have access to, outside of school. Our curriculum has a ‘STEMterprise’ project where children use a budget to design, make, market and sell a product. This project develops the confidence of our pupils; they work in teams, present their ideas and have an end project, which we then share with our school community. It allows children to see DT in a real life context. The range of experience and learning opportunities we offer ensures that our children benefit from a variety of spiritual, moral, social and cultural activities.

We provide an inclusive curriculum, ensuring those who have special educational needs and/or disabilities and those who are disadvantaged can all receive the same opportunities as their peers in Design Technology. Expectations are high for every pupil with appropriate levels of challenge and support. The schemes of work, which we have created at Bedford Drive are ambitious; they help children, many of whom start at Bedford Drive below age related expectations, to quickly gain knowledge and skills. We want our children to know more, understand more and remember more about Design and Technology.

Using Projects on a Page, within our planning, we have built in opportunities for repetition and practise of essential knowledge, skills and understanding. This ensures that children are able to revisit previous learning and help them to transfer this learning into the long term memory. We aim to build schemas to help our children make meaningful connections, develop higher thinking orders and deeper understanding.

Within the Design and Technology curriculum, we have identified clear end points for each Key Stage and ‘sticky knowledge’ for each year group. We are ambitious for all of our pupils and expect them to work towards and achieve these end points in Design and Technology.

**EYFS End Point:**

By the end of Foundation 2, pupils will have safely explored and used a variety of tools, techniques and materials. They will have learnt about how to use and combine media and materials and represented their own thoughts, feelings and ideas through discussions, drawings and models. This will prepare children to readily access the KS1 curriculum.

**KS1 End Point:**

By the end of Key Stage 1, pupils will be taught the knowledge, understanding and skills needed to support them through the process of designing and making. Pupils will be taught about design criteria and show that they can design for themselves and an intended user, based on a specification. In KS1, pupils will communicate their thoughts and ideas through discussions, drawings, labels and models. They will safely select and use a range of tools and equipment and have opportunities to evaluate existing products, as well as their own work.

**KS2 End Point:**

By the end of KS2, pupils will be taught the knowledge, understanding and skills needed to engage in the design process for a range of relevant contexts. They will learn about great designers and engineers and how they have helped to shape the world in which we live.

Pupils will use research to inform design criteria and design ideas. They will design and make appealing products that are fit for purpose, using a design specification. Pupils will communicate their ideas through discussions, annotated sketches, cross-section drawings, exploded diagrams, prototypes, pattern pieces and computer-aided design. Pupils will safely select and use a wide range of tools and equipment to perform practical tasks and make decisions about materials based on functional properties.

We have carefully analysed and discussed our pupil’s backgrounds, life experiences and cultures, which has helped us to design a Design and Technology curriculum which is ambitious. It will ensure that our children can successfully meet the challenges in the next stage of their education and lives. It will. Crucially, empower them to feel that their Design and Technology education had purpose and value. They will develop experiences which can then be of service to the community and wider world.

Oracy is a key element of the curriculum and the development of vocabulary is paramount. For Design and Technology, we have clearly identified vocabulary that builds up progressively. Children also get opportunities to develop oracy skills through talking about and appreciating the work and viewpoints of themselves, as well as others. They have opportunities to present and talk about their work explaining what has gone well and how they would adapt and improve their work.

Through Design and Technology, we intend that the children should become:

**Self - Successful learners** – we want our children to be knowledgeable, articulate and curious, having a sense of achievement in Design and Technology. We provide opportunities and experiences for our children to see possibilities available for their future and for their world.

**Self - Confident individuals** – we want our children to enjoy coming into school and have constructed a curriculum to promote and develop a love of learning and encourage curiosity; whilst ensuring they live safe, happy, healthy and fulfilling lives.

**Society - Responsible citizens** – we aim to offer experiences which help them become resourceful learners who use their initiative, and make a positive contribution to society; using creativity and imagination to solve real and relevant problems within a variety of contexts.

**Global -** Cultural capital is a key feature within our schemes of work; children are exposed to a range of great artists, craft makers and designers who have made an impact upon daily life and the wider world; those who have shaped our history and have contributed to the culture, creativity and wealth of our nation, as well as some of the greatest achievements of mankind.

**Implementation**

At Bedford Drive Primary School, we are committed to supporting and training our staff. To help staff improve their Design and Technology subject knowledge, we are linked to local subject networks, have staff CPD sessions and are a member of the Design and Technology Association (DATA). ‘Projects on a Page’ planning documents also have a CDP section, to support staff with their delivery of Design and Technology. We receive a D&T Association magazine three times a year, which provides updated information about the subject and top tips for teachers. These are stored where they can be accessed by all staff when required.

We are determined that our children are taught by knowledgeable experts, all teachers are helped through planning meetings, shared teaching and courses to improve their subject knowledge.

We support and advise staff with how to demonstrate and explain Design and Technology concepts to children. Teachers use a range of resources such as tools, equipment, demonstration boards, books, websites and videos to help them develop pupils’ knowledge, skills and understanding. Children show their knowledge, skills and understanding through their work, discussions, oracy and presentation skills; Teachers demonstrate and explain key vocabulary and terminology which pupils need to access the lesson.

Common misconceptions are identified when planning Design and Technology lessons to avoid common errors when teaching, for example; scales when weighing and measuring or the names of tools and equipment.

We implement our Design and Technology schemes of work through well-structured lessons; ensuring that we revisit and revise prior learning using strategies such as quizzes, games, online learning and recapping previous lessons. This helps to develop memory and ensure knowledge, skills and understanding becomes part of the long-term memory.

Our ambitious and carefully sequenced Design and Technology curriculum and planning means that we have opportunities for repetition and practise of essential knowledge, skills and understanding within Design and Technology.

We use a ‘mastery’ approach’ with Design and Technology; this ensures that pupils are able to revisit previous learning and help them to remember in the long term, content taught and how to integrate new knowledge into larger concepts. For example, ‘mechanisms’ is taught four times; Y1 learn about sliders and leavers, Y2 learn about wheels and axels, Y4 learn about leavers and linkages and Y6 learn about pulleys and gears. This ensures that the children revisit prior knowledge, skills and understanding and build upon it.

We want to move our pupils’ thinking to a higher level in order to develop a deep understanding rather than just acquiring new facts and knowledge.

Teachers use assessment well; we use our school tracking system, ‘Insight’ to track the progress and attainment within Design and Technology. Using assessment for learning means that staff can be flexible and reshape a lesson if they identify a misconception or error, which can quickly and easily be addressed and corrected.

Key vocabulary is identified and used appropriately. As oracy is an important part of our curriculum, we ensure that pupils have opportunities in Design and Technology to discuss, debate and present their work, thoughts and opinions.

**Self - Successful learners** – we teach lessons that have opportunities for pupils to take risks, be creative, curious and to articulate their thinking, ideas and opinions.

**Self - Confident individuals** – we teach lessons that give opportunities for pupils to experiment and investigate; to find out how things work. Pupils express their thoughts, ideas and opinions, as well as taking into consideration the opinion and viewpoints of others.

**Society - Responsible citizens** – we teach pupils to be problem solvers and resourceful learners who use their initiative, and make a positive contribution to society.

**Global -** Cultural capital is a key feature within our schemes of work; pupils are exposed to a range of great artists, craft makers and designers made an impact upon daily life and the wider world; those who have shaped our history and have contributed to the culture, creativity and wealth of our nation, as well as some of the greatest achievements of mankind.

**Impact**

At Bedford Drive, we want our children to know more and remember more. Therefore, we use formative and summative assessment information to inform planning.

Our tracking system, Insight, allows staff to assess systematically what they children know as the unit of work progresses, which is then used to inform future planning. Staff can quickly see, which child or group of children need further support within their DT unit of work. These formative assessments, then inform our summative assessment judgements, in each subject.

As part of our monitoring cycle, SLT and Subject Leaders monitor all subjects over the academic year. Monitoring includes: books looks, learning walks/ observations, pupil voice and/or staff voice. Our Governors are also part of this process. Through this rigorous monitoring cycle, we have the opportunity to see the impact of our curriculum upon the children.

We believe that through the Design and Technology curriculum, we can impact on how a child is feeling about themselves so that they feel confident and competent; ready to tackle any challenge that they may face. We place high priority on ensuring children’s physical and mental well-being needs are being met, as well as building self-confidence and self- esteem through ensuring a sense of achievement and success. Our unique curriculum ensures that every child is given the opportunity to shine and flourish.

We will see:

**Successful learners** – as children confidently and passionately talk to us about Design and Technology. Children who have a wide vocabulary and a knowledge of craftspeople and designers. Basic skills taught will enable children to move to the next stage of their learning and knowledge will equip our children to be good citizens in a multi-cultural Britain.

**Confident individuals** – who enjoy coming into school and are invested with their learning, showing a resilient, can do attitude through problem-solving.

**Responsible citizens** – who confidently talk about a difference they can make for **themselves**; through learning about how to be a good learner and a kind friend; our **society** through projects such as ‘STEMTERPRISE’ where all children learn about designing, making and marketing a product in order to raise money to improve an aspect of local life; and **globally**, where all children learn about how great designs how improved and shape the world we live in today.