Kindness Teamwork Curiosity

At Bushfield Road Infant School, our Design and Technology curriculum is designed to inspire creativity, problem-solving, and practical skills in all pupils. We aim to provide a broad and balanced curriculum that encourages pupils to design, make, and evaluate products that solve real and relevant problems, preparing them for future learning and life.

Our curriculum intent is closely connected to our core values:

- **Kindness:** Pupils learn to consider the needs, wants, and values of themselves and others when designing and making products. This empathy fosters kindness, encouraging pupils to create solutions that are thoughtful, inclusive, and beneficial to the wider community.
- **Teamwork:** Design and Technology activities promote collaboration and communication. Pupils work together to share ideas, plan, and create, developing essential teamwork skills that reflect the cooperative nature of real-world design and manufacturing processes.
- **Curiosity:** We encourage pupils to be curious and inquisitive, exploring materials, tools, and techniques through hands-on experimentation. Pupils are motivated to ask questions, take risks, and innovate, developing a deep understanding of how things work and how they can be improved.

Through this curriculum, pupils build confidence and competence in practical skills such as cutting, joining, shaping, and evaluating. They learn to apply knowledge from other subjects, including mathematics, science, and computing, to design and make high-quality products.

Our intent is to nurture pupils who are not only skilled and creative designers and makers but who also embody Kindness, Teamwork, and Curiosity in their approach to learning and problem-solving.

Progression from Nursery to Year 2 – Research, Design, Make & Evaluate

Research

Nursery	EYFS	Year 1	Year 2
Explore materials and objects through play. Show curiosity about how things work. Talk about familiar products.	Be aware of similar existing products.	Research similar existing products.	Use knowledge of existing products to develop ideas. Begin to use IT for research.
Children must explore materials and objects through play and talk about what they can see and how things work in simple terms. Children should notice similarities and differences between familiar products and begin to ask simple questions about them. Children could show curiosity by explaining what they think an object does and suggesting simple reasons why.	Children must recognise that some products are similar and talk about what they are used for. Children should compare familiar products and identify simple features linked to their use. Children could explore a range of products and begin to explain why one might be better for a purpose than another.	Children must investigate and describe existing products, identifying their purpose and who they are for. Children should carry out simple research, comparing products and explaining how they work. Children could use their research to suggest ideas for their own designs based on what they have found out.	Children must use knowledge of existing products to help develop their own ideas and understand a simple design brief. Children should research products, including using simple IT, considering user and purpose. Children could independently gather information from different sources and use it to refine and improve their design ideas.
look, find, same, different, object, thing, how, what, why	product, material, object, similar, different, explore, use	product, existing, design, purpose, user, investigate	design brief, design criteria, research, user, purpose, evaluate, improve

Design			
Nursery	**EYFS**	**Year 1**	**Year 2**
Explore materials and begin to choose for a purpose. Share ideas through talk and actions. Combine materials to represent ideas.	Select appropriate resources Use gestures, talking and arrangements of materials and components to show design Use contexts set by the teacher and myself Use language of designing and making (join, build, shape, longer, shorter, heavier etc.)	Have own ideas Explain what i want to do Explain what my product is for, and how it will work Use pictures and words to plan, begin to use models Design a product for myself following design criteria	Have own ideas and plan what to do next Explain what i want to do and describe how i may do it Explain purpose of product, how it will work and how it will be suitable for the user

			Describe design using pictures, words, models, diagrams, begin to use ICT Design products for myself and others following design criteria Choose best tools and materials, and explain choices
Children must explore materials and choose items to create simple representations of their ideas. Children should share ideas through talk and actions and begin to combine materials for a purpose. Children could experiment with different materials and refine their ideas as they work.	Children must select appropriate resources and use talk or gestures to communicate their ideas. Children should plan simple designs using given contexts and describe actions such as joining, building, and shaping. Children could adapt their designs as they work and use a wider range of vocabulary to explain their choices.	Children must create simple designs for a purpose and explain what they want to make. Children should use drawings, words, or models to plan and describe how their product will work. Children could develop more detailed plans that follow design criteria and consider the needs of the user.	Children must design a product for a purpose, explaining how it will work and who it is for. Children should plan with increasing detail using diagrams, models, or ICT and select suitable materials and tools. Children could independently develop and refine designs based on criteria and justify their choices clearly.
make, build, idea, choose, try, put together	design, plan, idea, choose, change, build, join	design, plan, model, draw, label, idea, purpose	design, plan, diagram, model, product, user, function, criteria

Make			
Nursery	**EYFS**	**Year 1**	**Year 2**
Use simple tools with support. Join and combine materials.	Construct with a purpose, using a variety of resources	Explain what I'm making and why Consider what I need to do next	Explain what I am making and why it fits the purpose

Build simple structures.	Use simple tools and techniques Build / construct with a wide range of objects Select and suggest appropriate tools & techniques to shape, assemble and join Replicate structures with materials / components Discuss how to make an activity safe and hygienic Record experiences by drawing, writing, voice recording Understand different media can be combined for a purpose	Select tools/equipment to cut, shape, join, finish and explain choices Measure, mark out, cut and shape, with support Choose suitable materials and explain choices Try to use finishing techniques to make product look good Work in a safe and hygienic manner	Make suggestions as to what I need to do next. Join materials/components together in different ways Measure, mark out, cut and shape materials and components, with support. Describe which tools I'm using and why Choose suitable materials and explain choices depending on characteristics. Use finishing techniques to make product look good Work safely and hygienically
Children must use simple tools with support and join materials to build basic structures. Children should begin to combine materials in different ways to create simple products. Children could experiment with tools and materials to improve how their models are built.	Children must construct products for a purpose using a range of materials and simple tools. Children should select appropriate tools and techniques to shape, assemble, and join materials safely. Children could replicate simple structures and explain how they made them.	Children must use tools to cut, shape, and join materials with support to make a product. Children should select suitable materials and begin to measure and finish their product with some accuracy. Children could improve the appearance and function of their product using different techniques and explain their choices.	Children must make products that meet a purpose by measuring, cutting, and joining materials with support. Children should work safely and select appropriate tools and materials based on their characteristics. Children could confidently use a range of techniques, adapt their approach, and improve the quality of their finished product.

cut, stick, glue, join, build, push, pull	cut, join, fix, shape, tool, material, build	cut, join, measure, shape, tool, equipment, assemble	measure, join, assemble, construct, shape, finish, technique

Evaluate			
Nursery	**EYFS**	**Year 1**	**Year 2**
Talk about what they have made. Express likes and dislikes. Notice how things work and make simple changes.	Adapt work if necessary Dismantle, examine, talk about existing objects/structures Consider and manage some risks Practise some appropriate safety measures independently Talk about how things work Look at similarities and differences between existing objects / materials / tools Show an interest in technological toys Describe textures	Talk about my work, linking it to what I was asked to do Talk about existing products considering: use, materials, how they work, audience, where they might be used Talk about existing products, and say what is and isn't good Talk about things that other people have made Begin to talk about what could make product better	Describe what went well, thinking about design criteria Talk about existing products considering: use, materials, how they work, audience, where they might be used; express personal opinion Evaluate how good existing products are Talk about what I would do differently if I were to do it again and why
Children must talk about what they have made and say what they like or dislike. Children should notice how things work and suggest simple changes. Children could explain why they	Children must talk about how things work and describe similarities and differences between products. Children should evaluate their work and make simple adaptations to improve it. Children could discuss safety, explain textures, and show interest in how products are designed.	Children must talk about their work and say how it meets the given task. Children should evaluate products by considering use, materials, and how well they work. Children could suggest improvements and explain what could make a product better.	Children must evaluate their product against design criteria and describe what went well. Children should consider how products work, their purpose, and give opinions on their effectiveness. Children could explain what they would change

like something and suggest how it could be improved.			and why, suggesting improvements for future designs.
like, don't like, good, change	like, dislike, change, improve, works	evaluate, good, bad, improve, better	evaluate, criteria, improve, design, successful, function

Progression from Nursery to Year 2 – Technical knowledge & skills to be covered through each DT aspect

Technical knowledge – Materials/structures			
Nursery	**EYFS**	**Year 1**	**Year 2**
Explore building with a range of materials. Combine and balance to make simple structures.	Use a range of construction kits to build free standing structures eg. Lego, mecano	Begin to measure and join materials, with some support Describe differences in materials Suggest ways to make material/product stronger	Measure materials Describe some different characteristics of materials Join materials in different ways Use joining, rolling or folding to make it stronger Use own ideas to try to make product stronger
Children must build simple structures using a range of materials and explore balance. Children should combine materials and notice when structures are strong or fall. Children could adjust their structures to improve stability.	Children must use construction kits to build simple free-standing structures. Children should recognise materials and describe simple properties such as strong or weak. Children could test and adapt structures to make them more stable.	Children must join materials and begin measuring with support. Children should describe differences in materials and suggest simple ways to make structures stronger. Children could apply simple techniques to improve stability.	Children must measure and join materials using different techniques. Children should describe material properties and use methods to strengthen structures. Children could independently apply techniques such as reinforcing to improve strength and stability.
build, stack, block, strong, fall, balance	material, wood, plastic, strong, weak, structure	structure, join, fix, strong, weak, stable	structure, stable, unstable, strengthen, reinforce, framework

Technical knowledge - Mechanisms			
Nursery	**EYFS**	**Year 1**	**Year 2**
Explore objects with moving parts. Notice push, pull and turn actions.	Show curiosity in products that use levers and sliders eg. Books, puppets	Begin to use levers or slides	Use levers or slides Begin to understand how to use wheels and axles
Children must explore objects with moving parts using push, pull, and turn actions. Children should recognise movement in everyday objects. Children could experiment with different ways to make objects move.	Children must explore simple mechanisms like sliders through play. Children should recognise how movement changes when parts are moved. Children could use simple mechanisms in their own creations.	Children must use simple mechanisms such as levers or sliders. Children should understand how these mechanisms create movement. Children could apply mechanisms in their own designs.	Children must use mechanisms such as levers, sliders, and begin using wheels and axles. Children should understand how these mechanisms work in products. Children could design products that effectively use these mechanisms for a purpose.
push, pull, move, turn	slider, move, push, pull	mechanism, slider, lever, move	mechanism, lever, pivot, slot, wheel, axle

Technical knowledge - Textiles			
Nursery	**EYFS**	**Year 1**	**Year 2**
Explore fabrics and textures. Join materials using simple techniques.	Measure, cut and join textiles to make a product, with support and/or in collaboration with others	Measure, cut and join textiles to make a product, with some support Choose suitable textiles	Measure textiles Join textiles together to make a product, and explain how i did it Carefully cut textiles to produce accurate pieces

			Explain choices of textile Understand that a 3d textile structure can be made from two identical fabric shapes.
Children must explore fabrics and join materials using simple techniques. Children should describe textures and how materials feel. Children could experiment with joining materials in different ways.	Children must measure, cut, and join textiles with support. Children should use simple techniques to create a product. Children could begin to follow simple patterns or designs.	Children must measure, cut, and join textiles with some support. Children should choose suitable textiles for their product. Children could use templates and simple stitching techniques.	Children must measure and cut textiles accurately and join them to create a product. Children should explain their choices and understand how 3D textile products are made. Children could use more advanced techniques and produce a higher-quality finish.
fabric, soft, cut, stick	fabric, material, join, pattern	fabric, stitch, design, join, template	fabric, stitch, seam, template, decorate, technique

Technical knowledge – Food and nutrition			
Nursery	**EYFS**	**Year 1**	**Year 2**
Explore food using senses. Use simple tools with support. Follow basic hygiene routines.	Begin to understand some food preparation tools, techniques and processes Practise stirring, mixing, pouring, blending	Describe textures Wash hands & clean surfaces Think of interesting ways to decorate food Say where some foods come from, (i.e. Plant or animal)	Explain hygiene and keep a hygienic kitchen Describe properties of ingredients and importance of varied diet Say where food comes from (animal, underground etc.)

	Discuss how to make an activity safe and hygienic Discuss use of senses Understand need for variety in food Begin to understand that eating well contributes to good health	Describe differences between some food groups (i.e. Sweet, vegetable etc.) Discuss how fruit and vegetables are healthy Cut, peel and grate safely, with support	Describe how food is farmed, home-grown, caught Draw eat well plate; explain there are groups of food Describe “five a day” Cut, peel and grate with increasing confidence
Children must explore food using their senses and follow basic hygiene routines. Children should use simple tools with support to prepare food. Children could talk about tastes and preferences.	Children must use simple preparation techniques such as mixing and stirring safely. Children should understand basic ideas about healthy eating and hygiene. Children could explain why some foods are healthy and describe ingredients.	Children must prepare food safely by cutting, peeling, and cleaning. Children should describe food groups and where food comes from. Children could explain why foods are healthy and suggest ways to present them.	Children must prepare food safely and explain hygiene rules. Children should describe a balanced diet and understand where food comes from. Children could plan and prepare simple dishes, explaining choices based on nutrition.
eat, food, mix, stir, taste	mix, stir, cut, healthy, ingredients	cut, peel, mix, ingredients, healthy, fruit, vegetable	ingredients, prepare, recipe, healthy diet, hygiene