

Bushfield Road Infant School



Design & Technology Policy

Updated Autumn 2021

This policy will be reviewed annually, each autumn term, or earlier in the event of any updates.

Updates will be brought to the attention of all staff and governors at the earliest opportunity.

The National Curriculum

'Design and 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 and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.' (National Curriculum 2014)

The national curriculum for design and 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.

1. Curriculum Intent

Design Technology is an inspiring, rigorous and practical subject that should provide children with a real life context for learning. At Bushfield Road Infant School, Design and Technology will allow children to solve real life and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. Children will learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens.

By the end of KS1, our children will have developed the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world. They will be able to critique, evaluate and test their ideas and the work of others.

2. Implementation

At Bushfield Road Infant School, Design Technology will be taught in all year groups through at least one topic per term, which includes one topic relating to food. Design Technology projects are often made cross curricular - linking to other subjects taught.

Design and Technology is organised into 5 main strands.

- **Design** - children are encouraged to develop purposeful, appealing products for themselves and others based upon a given design criteria. They are encouraged to present their designs through drawings, labels, writing and where appropriate ICT.
- **Making** - children will have the opportunity to use a wide variety of materials, resources and ingredients and will gain experience at using different tools and equipment.
- **Evaluating** - children will evaluate existing products and their own made products to identify their strengths and areas for development.
- **Technical knowledge** - children will build structures investigating what makes them stronger, stiffer and more stable. They are also encouraged to explore and use mechanisms (levers, sliders, wheels and axles) in their products.
- **Cooking and Nutrition** - children will use the basic principles of a healthy and varied diet to prepare dishes and develop an understanding of where food comes from.

Throughout Year 1 children will get the chance to design, make and evaluate...

- A moving picture (using the mechanism of a lever or slider)
- A healthy food product (e.g. a salad or a smoothie)
- A textile product

Throughout Year 2 children will get the chance to design, make and evaluate...

- A moving vehicle (using wheels and axles)
- A healthy food product (a sandwich snack)
- A textile product (using sewing e.g. a tree decoration)

3. Impact

Design and technology is loved by teachers and pupils across school. Children will design and make a range of products with a good quality finish. Foundation Stage children will recognise that a range of technology is used in places such as homes and schools and will be able to select and use technology for particular purposes. Teachers have higher expectations and more quality evidence can be presented in a variety of ways. All children use technical vocabulary accurately and pupils are expected to know, apply and understand the matters, skills and processes specified. Children improve their enquiry skills and inquisitiveness about the world around them, and their impact through design and technology. Children will become more confident in analysing their work and giving their opinion on their own and others products. Children show competences in improving their resilience and perseverance by continually evaluating and improving their work. All children in school can speak confidently about their design and technology work and their skills.

4. Teaching and Learning

We recognise the fact that we have children of differing ability in all our classes and so we provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies:

- Setting common tasks that are open-ended and can have a variety of responses
- Setting tasks of increasing difficulty which builds on prior learning
- Grouping children by ability and setting differentiated tasks for each group
- Using additional adults to support the work of individual children or small groups
- Providing a range of activities with different resources

5. The Foundation Stage

The Statutory framework for the early years foundation stage 2021 states that children at the expected level of development will:-

ELG: Creating with Materials

- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;
- Share their creations, explaining the process they have used;
- Make use of props and materials when role playing characters in narratives and stories.

These early experiences include asking questions about how things work, investigating and using a variety of construction kits, materials, tools and products, developing making skills and handling appropriate tools and construction materials safely and with increasing control.

We provide a range of experiences that encourage exploration, observation, problem solving, critical thinking and discussion. This forms the foundations for later learning in design and technology.

6. SEND

We teach design and technology to all children, whatever their ability. Design and technology also forms part of our school curriculum policy to provide a broad and balanced education to all children. Teachers provide learning opportunities that are matched to the needs of children with learning difficulties. Work in design and technology takes into account the targets set for individual children in their Individual Learning Plans (ILPs)

7. Assessment and Recording

It is the responsibility of the class teachers to monitor and assess children's progress. We assess the children's work in design and technology whilst observing them working during lessons and by evaluating the work they produce. The children's work is assessed against the learning objectives for the lesson and is recorded in the outcome column of the teacher's short term plans.

Children's work is displayed around the school. We keep evidence of the children's work in DT to demonstrate the level of achievement.

8. Resources

Pupils have access to a wide range of resources to support the teaching and learning of DT. Specialised equipment is held centrally in the main stock cupboard and is only accessible to members of staff. Resources are organised into project boxes (food, structures and mechanisms, textiles) for each year group. They include appropriate tools and materials for each design project. The general requirement for health and safety applies in this subject. Children are taught how to follow proper procedures for food safety and hygiene. See Appendix 1 for specific risk assessments.

9. Monitoring and Review

The monitoring of the standards of children's work in the arts is the responsibility of all teaching staff. The work of the subject leader also involves supporting colleagues in the teaching of design and technology, being informed about current developments in the subject and providing a strategic lead and direction for the subject in the school.

Written: September 2021

To be reviewed: September 2022

Appendix 1

RISK ASSESSMENT OF: Round-ended scissors		
LOCATION OF ACTIVITY: CLASSROOMS		
HAZARDS	CONTROL MEASURES	ADDITIONAL INFORMATION
Round-ended scissors	<ul style="list-style-type: none"> • Avoid injury by choosing tools appropriate to task and appropriate to the age and experience of the user. • Scissors to be used to cut paper and thin card. • Children to be made aware that the blades are sharp and could cause a pinching cut. • Left-handed scissors should be offered to left-handed children. • Children who are likely to cause injury to themselves or others are prohibited from using scissors. • All activities using scissors to be supervised. • Pupils to be taught how to carry scissors- blades closed and held in a gripped palm, never carried with blades pointing outwards. 	<ul style="list-style-type: none"> • Prior to use a member of staff should check the blades to ensure they are not damaged. • Some scissors should be kept solely for the use of fabrics to keep them sharp.
	<ul style="list-style-type: none"> • Pointed-ended scissors should be avoided. Only round-ended scissors should be used with pupils (one blade maybe round and the other pointed). • DO NOT USE scissors where both blades end in a point. 	<p>Children and staff to be read the risk assessment before using the round-ended scissors.</p> 

RISK ASSESSMENT PREPARED BY: Mrs K Turnbull

Date of Risk Assessment: September 2021

RISK ASSESSMENT OF: Fabric scissors

LOCATION OF ACTIVITY: CLASSROOMS.

HAZARDS	CONTROL MEASURES	ADDITIONAL INFORMATION
fabric scissor blades	<ul style="list-style-type: none">• Avoid injury by choosing tools appropriate to task and appropriate to the age and experience of the user.• Fabric scissors to be used to thin fabric such as cotton and felt.• Children to be made aware that the blades are sharp and could cause a pinching cut.• Left-handed fabric scissors should be offered to left-handed children.• Children who are likely to cause injury to themselves or others are prohibited from using scissors.• All activities using fabric scissors to be supervised.• Pupils to be taught how to carry scissors- blades closed and held in a gripped palm, never carried with blades pointing outwards.	<ul style="list-style-type: none">• Prior to use a member of staff should check the blades to ensure they are not damaged.• Fabric scissors should be kept solely for the use of fabrics to keep them sharp.
	<ul style="list-style-type: none">• Pointed-ended scissors should be avoided. Only round-ended scissors should be used with pupils (one blade maybe round and the other pointed).• DO NOT USE scissors where both blades end in a point.	Children and staff to be read the risk assessment before using the fabric scissors. 

RISK ASSESSMENT PREPARED BY: Mrs K Turnbull

Date of risk assessment: September 2021

RISK ASSESSMENT OF: ROUND-ENDED BLUNT KNIFE

LOCATION OF ACTIVITY: CLASSROOMS- to be used with adult supervision.

HAZARDS	CONTROL MEASURES	ADDITIONAL INFORMATION
Round ended blunt knife	<ul style="list-style-type: none">• The correct knife must be selected for the correct function. Blunt knives should only be used for spreading and slicing very soft foods such as a cutting a sandwich in half.• Blunt knives can cause serious injuries if trying to cut with them, so never try to chop with a blunt knife- always use a sharp one.• Staff to control the storage and use of knives.• Pupils taught correct techniques for use of knives and use under supervision.• Keep knife handles free of grease to prevent your hand from slipping, and wash knives thoroughly between uses.• When not using a knife, place it flat on the work surface with the sharp edge of the blade facing the board - never leave the knife standing up with the blade pointing upwards.• Wash separately do not leave in sink.	<ul style="list-style-type: none">• Prior to use a member of staff should check the blade for any damage.• Knives to be stored away from children's access.• If you have to carry a knife, then carry it at some distance from the body with the point facing down and the sharp edge facing backwards. Never carry a knife with the point facing forwards and never carry knives on chopping boards (this is often done when carrying dirty boards and knives to the sink and is a dangerous short-cut).
		

RISK ASSESSMENT PREPARED BY: Mrs K Turnbull

Date of risk assessment: September 2021

RISK ASSESSMENT OF: SHARP KNIFE

LOCATION OF ACTIVITY: CLASSROOMS- to be used with 1:1 adult supervision.

HAZARDS	CONTROL MEASURES	ADDITIONAL INFORMATION
Blade on the sharp knife	<ul style="list-style-type: none"> • The correct knife must be selected for the correct function. • Knives must always be kept sharp. A blunt knife is dangerous because it requires more pressure and is more likely to slip and cause a cut. This is the most important reason to keep your knives sharp. • Most knife manufacturers leave the spines of their knives squared off. The edges of the spine can sometimes be sharper than the knife itself. That edge cutting into your finger can lead to blisters, calluses, reduced circulation, numbness and injury. • Staff to control the storage and use of knives. • Pupils taught correct techniques for use of knives and use under 1:1 supervision. • Ensure you've got a secure cutting surface. You can easily slip and cut yourself if the board moves suddenly. Placing a damp cloth under the board will give it a good grip. Heavy, solid boards are also less likely to move or wobble. • When not using a knife, place it flat on the work surface with the sharp edge of the blade facing the board - never leave the knife standing up with the blade pointing upwards. • Knives should NEVER be left to soak in a sink because someone could put their hands in the water without seeing the knife and cut their hand or arm badly. 	<ul style="list-style-type: none"> • Prior to use a member of staff should check the blade for any damage. • Knives to be stored away from children's access. • If you have to carry a knife, then carry it at some distance from the body with the point facing down and the sharp edge facing backwards. Never carry a knife with the point facing forwards and never carry knives on chopping boards (this is often done when carrying dirty boards and knives to the sink and is a dangerous short-cut). • Keep knife handles free of grease to prevent your hand from slipping, and wash knives thoroughly between uses. • Take care to keep your knife in sight and never allow it to get hidden under anything, especially food items. This can often occur when piles of vegetable trimmings accumulate or there's a lot of clutter on the work surface.
	Children and staff should be made aware of the risk assessment before using the sharp knives.	

RISK ASSESSMENT PREPARED BY: Mrs K Turnbull

Date of Risk assessment: September 2021

RISK ASSESSMENT OF: JUNIOR HACKSAWS

LOCATION OF ACTIVITY: CLASSROOMS. To be used at a workstation that is cordoned off.
Only 1 pupil in the area with an adult.

HAZARDS	CONTROL MEASURES	ADDITIONAL INFORMATION
Hacksaw blade	<ul style="list-style-type: none">• KS1 children should have the close supervision of an adult when using the hacksaw.• Only staff to replace worn blades by holding the hacksaw in a holding device whilst compressing the frame (replacement blades are replaced with the teeth pointing forwards.)• Teeth point forwards on the blades for ease of cutting- the cut will be on the push, not the pull.• Pupils who are likely to cause injury to themselves or others are prohibited from using hacksaws.	<ul style="list-style-type: none">• Prior to use a member of staff should check the security of the blade in the frame and that the blade has no broken teeth.• Where possible hacksaws to be stored away from children's access.• Where possible, the easier to hold plastic handled hacksaws are used in preference to the traditional type with a loop shaped handle.• A fined toothed (32 teeth per inch) blade is used to give a more fluent cutting action.• Pupils to be taught not to enter the workstation where the hacksaw is being used unless asked to do so by an adult.
	<ul style="list-style-type: none">• Pupils to be taught how to hold the hacksaw correctly.• Pupils to be taught to ensure they have sufficient personal space to use the saw.• The sawing of a piece of wood to be modelled to pupils, always using a bench hook and a G-clamp and not saw directly onto the table.• Pupils to be taught to draw the saw back a couple of times to make a starter notch before beginning sawing action.• Pupils to be made aware that the blade of the hacksaw is sharp and could cause cuts to the skin.	<ul style="list-style-type: none">• Children and staff to be read the risk assessment before using the hacksaw. 
Dust	<ul style="list-style-type: none">• There is a risk of inhalation of dust. Dust must not be blown away as this increases the risk.	<ul style="list-style-type: none">• Sawdust/waste materials to be cleaned up in a timely manner.• Hacksaws must not be used on expanded polystyrene.

RISK ASSESSMENT PREPARED BY: Mrs K Turnbull

Date of Risk Assessment: September 2021

RISK ASSESSMENT OF: FOOD PREPARATION

LOCATION OF ACTIVITY: CLASSROOMS. To be used in an area that is cordoned off. Only 1 pupil in the area with an adult.

HAZARDS	CONTROL MEASURES	ADDITIONAL INFORMATION
<p>Use of cooker/oven</p> <p>Hot surfaces and liquids</p>	<ul style="list-style-type: none"> • Portable ovens are placed away from hazards such as flammable materials, class displays, doorways, fire escape routes, etc. • Pupils supervised by adults at all times • Ovens are used for food preparation only • Fire blanket kept in the area • All ovens are PAT tested and checked termly • Adults to supervise all cooking • Adults to lift lids off pans • Adults to move kettles, hot baking trays and dishes • Adults to supervise boiling water in pans • Pan handles positioned safely away from the edge of the cooker 	<ul style="list-style-type: none"> • Remind pupils of the safety rules before every cooking lesson • Staff to read the risk assessment before using the cooker/oven
<p>Hygiene and safety rules</p>	<p>Children are taught the importance of storing, preparing and cooking food safely and hygienically.</p> <p>What do you need to do before you begin any work with food?</p> <p>Talk about hygiene rules which must be followed during food work.</p> <p>Children know what should be done after cooking is finished:</p> <ul style="list-style-type: none"> • Wash equipment in warm water and washing up liquid and dry it thoroughly; • Clean down surfaces; • Put ingredients or food away appropriately, e.g. wrap, seal, refrigerate. 	<p>There are hygiene and safety rules which need to be followed before, during and after cooking. Children will be briefed with hygiene rules and reminded. For example:</p> <ul style="list-style-type: none"> • Make sure the cooking area is tidy and clean; • Tie back long hair; • Remove jewellery; • Wash hands; • Put on an apron.

RISK ASSESSMENT PREPARED BY: Mrs K Turnbull

Date of Risk Assessment: September 2021