Barrowby CE Primary School

Design and Technology Curriculum

Vision:
At Barrowby CE Primary School our aim is to facilitate and provide a wide range of learning opportunities for children in Design and Technology. Children will be taught relevant vocabulary, joining and fixing techniques and skills using various tools. These will progress each year and build on previous learning so we can equip them with the DT skills and knowledge to take into their next steps in education when they leave our school.

Intent:
In order to prepare children to deal with tomorrows rapidly changing world, we will encourage them to become independent, creative problem solvers and thinkers. Children will use their creativity and imagination in Design and Technology, to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values.

We aim to, wherever possible, link work to other disciplines such as mathematics, science, computing and art. The children are also given opportunities to reflect upon and evaluate past and present design technology, its uses and its effectiveness and are encouraged to become innovators and risk-takers.

Implementation :
We aim for all children across the school to become confident in Cooking and Nutrition and in Technical Knowledge. Lessons will enable pupils to meet the end of key stage attainment targets in the national curriculum and with those in the national curriculum.

In Early Years Foundation Stage (EYFS) our Reception children will follow the EYFS statutory framework, which sets out the seven areas of learning, communication and language.

- **personal, social and emotional development** will be nurtured through communication skills being utilised and developed in the design, making and evaluation process every time a new piece of work is undertaken.
- **physical development** is enriched and used when products are in the making stage. Fine and gross motor skills will be taught and practised when they are making their product or preparing and cooking a dish.
- **Literacy** is used for children to communicate their ideas through simple labelling of a design to verbally explaining ideas as they develop.
- **Mathematics** is used in the making of each product or food dish. This is also through drawing designs and measuring materials or food quantities.
- **understanding the world** will be further developed by learning about products they are to design and make and how they are used in the world. It will encourage them to begin to think of an audience for their products, which will be important in DT as they move into key stage two.
- **expressive arts and design** will enable children to begin to develop their imagination and fine motor skills necessary to generate products and enhance

their curiosity of what they can build, make and create. They will become familiar with the product they are to make before the design stage. Once they know the product they are to make, they will be able to design and then make it using simple fixing and joining techniques. The final stage of the process will see children evaluating their product against the original design and assessing the cutting (where appropriate for EYFS) and fixing. They will have the opportunity to consider improvements in design and make stages and what they would do differently in the future in the evaluation. This will also nurture children to be self-evaluating and to give them valuable learning experiences to draw on in subsequent years.

At Barrowby School, we deliver Design and Technology through the recommendations from the National Curriculum for Key Stage One and Key Stage Two.

In Key Stage One and Two children learn to:

- Evaluate current products and thinking about how they want to produce their own product
- Design purposeful products for themselves, based on particular criteria
- Generate ideas through talking and drawing
- Select from a range of tools, equipment and materials
- Build structures, thinking about how they can be made stronger and more stable
- Explore mechanisms (levers, sliders, wheels)
- Evaluate their finished product against the design criteria.

For pupils with SEND, their personal targets will inform Design and Technology planning and teaching to identify areas where they may need more support, practice and consolidation. Pupil's strengths will be focussed upon to ensure all pupils, regardless of their SEN or disability, have the opportunity to develop all the concepts within our curriculum. The approach to these concepts may need to be tailored to SEND children and their needs. Therefore, the learning may have to be done differently with different pupils.

Impact:

From clear steps of learning coupled with vocabulary, all practitioners will be confident in the content they are delivering. As a result, children will have clear enjoyment and confidence in Design and Technology that they will then apply to other areas of the curriculum. Through carefully planned and implemented learning activities the pupils develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world. They gain a firm foundation of knowledge and skills to see them equipped to take on further learning after Primary School.

Assessment will take place at the end of each unit. Teachers will make a formative judgement based upon pupils work in the current unit. At the end of the year, these

judgements will inform teacher assessment in Design and Technology for each pupil. These judgements will be communicated to the class teacher for the following year to ensure pupils continue to progress.

The Design and Technology Curriculum for Reception (Cycle A)

	Autumn Term		Spring Term	Summer Term
Unit	**Looking After Ourselves**		**Extinct and Endangered** (Technical Knowledge)	**Homes and Habitats** (Technical Knowledge)
	Technical Knowledge	Food and nutrition		
	By the end of this unit: - Select from a wide range of materials to make and evaluate a product using weaving skills and techniques - Use their dominant hand, with increasing control to complete activities, such as drawing, writing and painting (and weaving) - Create increasingly detailed drawings to create a model of their choice (design and make)	By the end of this unit: - Explore cutting techniques (gripping of a dinner knife to cut into soft ingredients). - Hold a knife correctly and cut food with it (with adult support) - Scooping fruit out of a bowl with a spoon to make a fruit salad - Combine by mixing small amounts of cold ingredients in bowl (fruit salad ingredients)	By the end of this unit: - Design and make a model, using reclaimed materials and different joining techniques. e.g. - Use their dominant hand to hold scissors - cut materials using scissor - join materials using various fixing techniques and materials - 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, according to their characteristics	By the end of this unit: - Children will use simple movement components, such as levers to make a moving picture with sliding part. - Select from a wide range of materials to make and evaluate a product - Use their dominant hand, with increasing control to complete activities, such as drawing, writing, painting, cutting and joining - Create increasingly detailed drawings to create a model of their choice - build structures, exploring how they can be made stronger, stiffer and more stable - explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products - design purposeful, functional, appealing products for themselves and other users based on design criteria
Key Vocab	Fabric, Weave, Felt, Scissors, Sew, Button, thread, needle	Build, Make, Diet, Fruit, Vegetables, Cutting, Chopping, Tasting, Sensory, Method, Ingredients, Measure, spoons, Peeler, Recipe, chopping board, mix	Model, Scissors, cut, join, fix, moving, finishing, component, material	

Suggested support for children with additional needs	• Instructions are given clearly and reinforced visually, where necessary • video presentations have subtitles for deaf or hearing-impaired pupils and those with communication difficulties, where required. • • Remember that pupils with an autistic spectrum disorder (ASD) may have low awareness of danger. • Use tools and equipment 'with help where needed', as without this support they may not be able to achieve • Instructions are given clearly and reinforced visually, where necessary • Break down the designing and making stages into small manageable steps, and incorporate designing into 'mini making' tasks with specific targets. • Use a tick list or wallchart so that pupils are clear about what they are working towards and how far they have got in relation to completing the project		• Instructions are given clearly and reinforced visually, where necessary • Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view. • Tripod pencil grips available • time to think about questions before being required to respond • time to explain, and respect for their responses to questions and contributions to discussions labelled clearly to encourage • Use tools and equipment 'with help where needed', as without this support they may not be able to achieve • Make sure that pupils , judge their own work against the design specification rather than against the work of other pupils • Pupils could contribute to product evaluation, where appropriate, using simple choice cards with words and/or symbols, eg for like/dislike, simple ranking or recording sheets. • Clear and easy access to resources	• Instructions are given clearly and reinforced visually, where necessary. • Use tools and equipment 'with help where needed', as without this support they may not be able to achieve • Instructions are given clearly and reinforced visually, where necessary • Break down the designing and making stages into small manageable steps, and incorporate designing into 'mini making' tasks with specific targets. • Use a tick list or wallchart so that pupils are clear about what they are working towards and how far they have got in relation to completing the project • video presentations have subtitles for deaf or hearing-impaired pupils and those with communication difficulties, where required. • Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view
1	Explore: - Discover what a weaving loom is and what it makes. Explore the materials used on a weaving loom and what a piece of weaved fabric looks like.	Research: - Identify and name different fruits and vegetables. - Taste test fruit.	Research/ explore: - display examples of models build with reclaimed and/or recyclable materials. - have different reclaimed items and materials for children to examine and consider what to use and how to use it.	Research: - look at various books with sliding mechanisms. - examine sliding mechanisms in books. - Investigate and analyse how sliding mechanisms work - Explore making a simple sliding mechanism with a character/animal drawn on the slider and a backdrop/landscape behind. - Investigate how it moves and discuss the possible movements that they could create.
2	Design: - A pattern / design to create by weaving. - Develop increasingly detailed drawings to create weaving of their choice (design and make).	Design: - Draw simple pictures, using a range of mark making materials, e.g. pencils, crayons, paintbrush to draw a food dish (fruit salad) to be prepared from given ingredients. - name the ingredients to be used	Design: - Talk in detail about what they are going to do and what materials and items they will need. - draw the dinosaur the plan to make. Verbally explain the items they will use. - children describe how they think the items can be fixed together to make the model	Design: - begin to design the slider by illustrating the castle/character and backdrop on a design sheet. - Explain (verbal) how the slider will work (will the character move up and down or side to side?) Which medium will they use to add colour? (pencils, paint etc)
3	Make:	Make:	Make:	Make – cut the character and slider out and illustrate.

	- Designed pattern by weaving. - Confidently share their models/designs and explain some of their choices and processes -	- Combine ingredients to be used. Cut any soft ingredients with a dinner knife. (Hard fruit cut by adult) - Mix in a bowl - scoop out the ingredients with a tablespoon into a bowl	- Fix model together using various joining techniques. E.g. gluing, taping, (adults may need to assist cutting the thicker materials) - Refer to design - adapt design where needed	Draw the landscape marking where the slider will be inserted through a small slit.
4	Evaluate: - Share their creations, explaining the process they have used. - Finished product accurate to design - Look of product. - Quality of the finished weaving	Evaluate: - Be rightfully proud of their creations and enjoy sharing them with their peers and adults. - Say what they like/dislike about the food.	Evaluate: - Say “I have made…” “I used…”. - Be proud of their creations and enjoy sharing them with their peers and adults. - Say what they like/dislike - What could they do differently next time - Which part did they enjoy making the most? - did they need to adapt the design? Why?	Evaluate: - Share their creations, explaining the process they have used. - Finished product accurate to design - Look of product. Quality of the finished product.

The Design and Technology Curriculum for Reception (Cycle B)

	Autumn Term		Spring Term	Summer Term
Unit	**Commotion in the Ocean**		**Wagons Roll**	**Open Our Eyes**
	Technical Knowledge	Food and Nutrition	Technical Knowledge	Technical Knowledge
	By the end of this unit: - Design a lighthouse that will be assembled using simple fixing techniques (e.g. tape, glue). - Make the light house then evaluate end product.	By the end of this unit: - make a food dish requiring the skills below. (e.g. sandwich) - scooping (e.g. jam) - spreading (e.g. butter and/or jam) cutting (e.g. sandwich) - Link to the learning. E.g. The Lighthouse Keepers Lunch story - Hold a knife and fork/spoon correctly, with adult support.	By the end of this unit: - Use simple movement components, such as wheels and axels - Make (using pre-cut axels) moving vehicle. - Evaluate vehicle and construction - 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	By the end of this unit: - Select from a wide range of materials to make and evaluate a product using weaving skills and techniques - Use their dominant hand, with increasing control to complete activities, such as drawing, writing and painting (and weaving) - Create increasingly detailed drawings to create a model of their choice (design and make)
Key Vocab	Sellotape, Glue Stick, Masking Tape, Paper Clip, Plasticine, Ruler, Straws, Join, 2-D, 3-D, Cut, Fold, Join, Fix, 2-D, 3-D, Cut, Fold, Join, Fix,	Build, Make, Diet, Fruit, Vegetables, Cutting, Chopping, Tasting, Sensory, Method, Ingredients, Measure, spoons, Peeler, Recipe, chopping board	Build, Make, Sellotape, Glue Stick, Masking Tape, Paper Clip, Plasticine, Ruler, Straws, Join	Fabric, Weave, Felt, Scissors, Sew, Button, Zip
Suggested support for children with additional needs	• talking about what they have done easier than talking about what they plan to do • Adult help with cutting and fixing • lists of key words, posters, etc can help pupils to recognise and spell the names of important pieces of equipment.	• Instructions are given clearly and reinforced visually, where necessary • Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view. There is room for pupils with • mobility difficulties to obtain their own resources and equipment	• look at a limited range of products at one time • time to think about questions before being required to respond • time to explain, and • respect for their responses to questions and contributions to discussions labelled clearly to encourage • Use tools and equipment 'with help where needed', as without this support they may not be able to achieve Make sure that pupils, judge their own work against the design specification rather than against the work of other pupils	• Instructions are given clearly and reinforced visually, where necessary • video presentations have subtitles for deaf or hearing-impaired pupils and those with communication difficulties, where required. • • Remember that pupils with an autistic spectrum disorder (ASD) may have low awareness of danger. • Use tools and equipment 'with help where needed', as without this support they may not be able to achieve • Instructions are given clearly and reinforced visually, where necessary

	• look at a limited range of products at one time • Instructions are given clearly and reinforced visually, where necessary • Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view. There is room for pupils with generic aids − eg jumbo pencils, non-slip mats to hold papers, books and equipment in place, BluTac to hold small items or as a temporary fixing (eg for rulers when drawing)	• talking about what they have done easier than talking about what they plan to do lists of key words, posters, etc can help pupils to recognise and spell the names of important pieces of equipment. • time plans or design prompts with graphics may also be helpful. look at a limited range of products at one time		• Break down the designing and making stages into small manageable steps, and incorporate designing into 'mini making' tasks with specific targets. Use a tick list or wallchart so that pupils are clear about what they are working towards and how far they have got in relation to completing the project
Step				
1	Explore: - Look at different lighthouses from around the UK and the world.	Design: - Drawing showing filling. (e.g. jam, butter, bread) - Draw simple pictures, using a range of mark making materials, e.g. pencils, crayons, paintbrush.	Explore: Explore existing toy vehicles with moving axels. How do they work? How do the wheels need to be fixed on? (e.g. glue and wheels don't move on axel, the axel moves)	Explore: - Discover what a weaving loom is and what it makes. Explore the materials used on a weaving loom and what a piece of weaved fabric looks like.
2	Design: - draw design considering stability, strength and aesthetics - label with name of material / item used for model. (e.g. kitchen roll tube, tea light, scrunched paper (for rocks))	Make: - Put bread on plate/ chopping board - Using a dinner knife/ butter knife to spread butter - Scoop the filling (e.g. jam) with a teaspoon onto the bread. Spread with dinner knife - Cut sandwich with dinner knife. -	Design: - Draw the model that they intend to make. - Indicate what the different parts are called (verbal/written) - Indicate what will the parts be made from	Design: - A pattern / design to create on the weaving loom. Create increasingly detailed drawings to create weaving of their choice (design and make).
3	Make: - build lighthouse following design. Focus on cutting technique and accuracy of joining.	Evaluate: - Say if they liked the sandwich - What was good/bad about the sandwich	Make: - Use new joining techniques with increasing accuracy, such as using PVA glue, masking tape, cutting slits in cardboard tubes to join other materials.	Make: - Designed pattern on the weaving loom. - Confidently share their models/designs and explain some of their choices and processes

		- say what went well - which part they liked the most - What they found difficult - How they might do it differently next time	- Use a spatula to spread PVA glue to join a range of materials. Cut around shapes and objects with increasing control to fill a template (collage) and/or their own drawing.	
4	Evaluate: - Overall taste - distribution of toppings - toppings – how well they have been cut and size - positive and negative points.		Evaluate: - Be rightfully proud of their creations and enjoy sharing them with their peers and adults.	Evaluate: - Share their creations, explaining the process they have used. - Finished product accurate to design - Look of product. Quality of the finished weaving

The Design and Technology Curriculum for Year 1 (Cycle A)

	Autumn Term 11 hours		Spring Term 10 hours	Summer Term 8 hours
Unit	**Looking After Ourselves** (Technical Knowledge)	**Looking After Ourselves** (Cooking and nutrition)	**Extinct and Endangered** (Technical Knowledge)	**Homes and Habitats** (Technical Knowledge)
	By the end of this unit: • Design and make a seasonal tree, • Join materials and components using a running stitch. • Measure, mark out, cut and shape a range of materials • Explore using tools (e.g. scissors and a hole punch) safely. • Verbally plan their ideas and intention with adults and their peers. • Hold scissors +correctly, using their dominant hand to cut.	By the end of this unit: • Children will explore cutting techniques (bridge & claw cutting technique) to cut soft fruit. (for fruit salad) • Children will identify, name and describe fruits and vegetables and prepare them to be eaten.	By the end of this unit: - Design and make a model, using reclaimed materials and different joining techniques. e.g. - Use their dominant hand to hold scissors - cut materials using scissor - join materials using various fixing techniques and materials - 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.	By the end of this unit: - Children will use simple movement components, such as levers to make a model with moving part. E.g. castle battle moving picture or moving part of a Great Fire of London model (e.g. a Tudor house) - Select from a wide range of materials to make and evaluate a product - Use their dominant hand, with increasing control to complete activities, such as drawing, writing, painting, cutting and joining - Create increasingly detailed drawings to create a model of their choice - build structures, exploring how they can be made stronger, stiffer and more stable • explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products
Key Vocab	Design, Make, Join, fix, running stitch, shape, design, evaluate, finishing, Names for all tools and equipment used.	Build, Make, Diet, Fruit, Vegetables, Cutting, chopping, Tasting, Sensory, Method, Ingredients, Measure, spoons, Peeler, Recipe, chopping board, Names for all equipment used.	Design, Make, Evaluate, Investigating, User, Product, Purpose, Design criteria, Function, Names for all tools and equipment used. Model, Scissors, cut, join, fix, moving, finishing, component, material	
Suggested support for	• talking about what they have done easier than talking about what they plan to do • Have their own shaker to avoid sharing issues		• Instructions are given clearly and reinforced visually, where necessary • Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view.	• Instructions are given clearly and reinforced visually, where necessary. • Use tools and equipment 'with help where needed', as without this support they may not be able to achieve

	• lists of key words, posters, etc can help pupils to recognise and spell the names of important pieces of equipment. • Instructions are given clearly and reinforced visually, where necessary • Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view. There is room for pupils with • mobility difficulties to obtain their own resources, equipment and generic aids − eg jumbo pencils, non-slip mats to hold papers, books and equipment in place, BluTac to hold small items or as a temporary fixing (eg for rulers when drawing)		• Tripod pencil grips available • generic aids − eg jumbo pencils if hand control is weak, non-slip mats (dycem) to hold papers, books and equipment in place, BluTac to hold small items or as a temporary fixing (eg for rulers when drawing) • Pupils could contribute to product evaluation, where appropriate, using simple choice cards with words and/or symbols, eg for like/dislike, simple ranking or recording sheets.	• Instructions are given clearly and reinforced visually, where necessary • Break down the designing and making stages into small manageable steps, and incorporate designing into 'mini making' tasks with specific targets. • Use a tick list or wallchart so that pupils are clear about what they are working towards and how far they have got in relation to completing the project • video presentations have subtitles for deaf or hearing-impaired pupils and those with communication difficulties, where required. Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view
Step				
1	Research: explore seasonal tree design through hands on and a range of media (e.g. printed pictures and on IWB)	Research / explore: - Identify and name different fruits - Taste test fruit and evaluate which to use for best combination - written comments about each fruit.	Research/ explore: - display examples of models build with reclaimed and/or recyclable materials. - have different reclaimed items and materials for children to examine and explore so they can consider what to use and how to use it.	Research: Examine sliders from different mechanisms.
2	- Design a seasonal tree considering how it will look like those seen in step 1 and adding their own personal design. - Verbally plan their ideas and intention with adults and their peers when seasonal tree making.	Design: - draw planned fruit salad labelling the fruit. - List equipment needed - write simple method/steps	Design: - Talk in detail about what they are going to do and what materials and items they will need. Draw basic plan/drawing. Some may write labels of parts, or some may verbally explain the parts and materials used. - children describe how they think the items can be fixed together to make the model	Design: - begin to design the slider by illustrating the backdrop on a design sheet. - Explain (written or verbal) how the slider will work (will the moving part move up and down or side to side?) - Which medium will they use to add colour? (pencils, paint etc)
3	Make: - follow design as closely as possible. - Use scissors to cut material (some may need adult assistance). - Fixing using running stitch.	Make: - follow design - cut fruit with dinner knife (harder fruit cut by adult with child input on size of the pieces cut etc.) - Mix in a bowl with spoon or fork to combine ingredients used.	Make: - Fix model together using various joining techniques. E.g. gluing, taping, (adults may need to assist cutting the thicker materials) - Refer to design - adapt design where needed	Make: - Cut the out the slider out and illustrate, staying as faithful as possible to design. - Draw the landscape marking where the slider will be inserted through a small slit. - encourage evaluation during making process. Are they having to make changes?

		- scoop ingredients, with a small spoon, transferring it to a bowl to serve.		
4	Evaluate: (verbal with adult scribe) - What they like about the seasonal tree - What could they do differently next time - Which part did they enjoy making the most?	Evaluate considering: - written evaluation detailing what they like/dislike about the food. - What was easy and difficult? - would they change anything for next time?	Evaluate: - Say "I have made…" "I used…". - Share finished products with their peers and adults explaining about the design and materials used. - Say what they like/dislike - What could they do differently next time - Which part did they enjoy making the most? - did they need to adapt the design? Why?	Evaluate: - Share their creations, explaining the process they have used. - Finished product accurate to design - Look of product. - Quality of the finished product.

The Design and Technology Curriculum for Year 1 (Cycle B)				
	Autumn Term **11 hours**		**Spring Term** **8 hours**	**Summer Term** **10 hours**
Unit	**Light and Sound** (Textiles) 8 hours	**Light and Sound** (Cooking and Nutrition) 3 hours	**Wagons Roll** (Technical Knowledge, structures) 8 hours	**Weaving Textiles** (Technical Knowledge, textiles) 10 hours

	By the end of this unit: - Design, make and evaluate making a textile creature. Explore materials and techniques to create a textile bug	By the end of this unit: - make a food dish requiring the skills below. (e.g. sandwich) - scooping (e.g. jam) - spreading (e.g. butter and/or jam)cutting (e.g. sandwich) - Link to the learning. E.g. The Lighthouse Keepers Lunch - Hold a knife and fork/spoon correctly, with adult support.	By the end of this unit: - Use movement components, such as wheels and axels - Make moving vehicle using pre-cut axels. - Evaluate vehicle and construction finish. - 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	By the end of this unit: - create an applique on felt - use a needle and thread - use stitching techniques to fix felt. - use the running stitch
Key vocab	Design, Make, Evaluate, Investigating, User, Product, Purpose, Design criteria, Function, Names for all tools and equipment used.			
Key Vocab	Design, Make, Join, fix, running stitch, shape, design, evaluate, finishing, Names for all tools and equipment used.	Build, Make, Diet, Fruit, Vegetables, Cutting, Chopping, Tasting, Sensory, Method, Ingredients, Measure, spoons, Peeler, Recipe, chopping board	Sellotape, Glue Stick, Masking Tape, Paper Clip, Plasticine, Ruler, Straws, Join, 2-D, 3-D, Cut, Fold, Join, fix 2-D, 3-D, Cut, Fold, Join, Fix, Slider, lever, Pivot, Slot, Materials, moving, mechanism	Fabric, Template, Pattern, pieces, Mark out, Decorate, Suitable, Quality, Needle, Pin, Stitch, Thread
Suggested support for children with additional needs	• talking about what they have done easier than talking about what they plan to do • lists of key words, posters, etc can help pupils to recognise and spell the names of important pieces of equipment. • look at a limited range of products at one time • Instructions are given clearly and reinforced visually, where necessary • Demonstration area it is clearly laid out,	• Instructions are given clearly and reinforced visually, where necessary • Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view. There is room for pupils with • mobility difficulties to obtain their own resources and equipment • talking about what they have done easier than talking about what they plan to do lists of key words, posters, etc can help pupils to recognise and spell the names of	• time to think about questions before being required to respond • time to explain, and • respect for their responses to questions and contributions to discussions labelled clearly to encourage • Use tools and equipment 'with help where needed', as without this support they may not be able to achieve • Make sure that pupils, particularly those with BESD, judge their own work against the design specification rather than against the work of other pupils	• Instructions are given clearly and reinforced visually, where necessary • Use tools and equipment 'with help where needed', as without this support they may not be able to achieve • Instructions are given clearly and reinforced visually, where necessary • Break down the designing and making stages into small manageable steps, and incorporate designing into 'mini making' tasks with specific targets. • Use a tick list or wallchart so that pupils are clear about what they are working towards and how far they have got in relation to completing the project • video presentations have • subtitles for deaf or hearing-impaired pupils and those with communication difficulties, where required. • Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view

	uncluttered and gives all pupils a clear view. There is room for pupils with	important pieces of equipment. • time plans or design prompts with graphics may also be helpful. look at a limited range of products at one time		• look at a limited range of products at one time
Step				
1	Research: explore textile bug design through hands on and a range of media (e.g. printed pictures and on IWB)	Design: - Drawing showing filling. (e.g. jam, butter, bread) - Draw labelled pictures.	Research: simple working of components and movements such as wheels and axels. e.g. Look at different size and types of wheel and ways to fix to axel. How does the axel fix / fit to chassis?	Explore: examples of appliques and discuss what they like about the designs. Show running stitch and explain they will be using this stitch. Show examples of the stitch.
2	- Design a textile bug considering how it will look like those seen in step 1 and adding their own personal design. - Verbally plan their ideas and intention with adults and their peers when textile bug making.	Make: - Put bread on plate/ chopping board - Using a dinner knife/ butter knife to spread butter - Scoop the filling (e.g. jam) with a teaspoon onto the bread. Spread with dinner knife - Cut sandwich with dinner knife.	Plan: Labelled drawing of wagon (wheels, axel, chassis etc.) Children consider how they will stay faithful to the design when making their wagon.	Design and draw their intended applique design. Design to be labelled 'running stitch' as well as colour of thread.
3	Make: - follow design as closely as possible. - Use scissors to cut material (some may need adult assistance). - Fixing using running stitch.	Evaluate: - Write whether they liked the sandwich - What was good/bad about the sandwich - say what went well - which part they liked making the most - What they found difficult - How they might do it differently next time	Make: Construct wagon following plan. How closely can they follow the design? Encourage evaluation as they are making with questions about their wagon.	Make applique using running stitch. With adult supervision, some may also include back stitch to extend and challenge.

4	Evaluate: (verbal with adult scribe) - What they like about the textile bug - What could they do differently next time? Which part did they enjoy making the most?		Evaluate wagon - construction of vehicle, axel and wheels - Is the finished wagon like the design? Yes / no. Why? / why not?	Evaluate: - accuracy to their design - quality of the joining and stitching

The Design and Technology Curriculum for Year 2 (Cycle A)			
	Autumn Term **11 hours**	**Spring Term** **10 hours**	**Summer Term** **8 hours**

Unit	**Looking After Ourselves** (Cooking and Nutrition) 8 hours 3 hours		**Extinct and Endangered** (Technical Knowledge)	**Construction** (Technical knowledge) 10 hours
	By the end of this unit: • Design and make a seasonal tree. • Independently join materials and components using a running stitch *and* back stich. • Measure, mark out, cut, and shape a range of materials. • Explore using tools (e.g. scissors and a hole punch) safely and accurately. • Discuss their ideas and intention with adults and their peers writing key points. • Use scissors correctly, using their dominant hand to cut accurately.	By the end of this unit: • Children will explore cutting techniques (bridge & claw cutting technique) to cut soft fruit independently (with adult supervision). (for fruit salad) • Children will identify, name and describe fruits and vegetables and prepare them to be eaten. • Use a spoon to mix and scoop fruit from a bowl to serve.	By the end of this unit: - Design and make a model, using reclaimed materials and different joining techniques. e.g. - Use their dominant hand to hold scissors - cut materials using scissor - join materials using various fixing techniques and materials - 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.	By the end of this unit: - Children will use simple movement components, such as levers to make a model with moving part. E.g. castle battle moving picture or moving part of a Great Fire of London model (e.g. a Tudor house) - Select from a wide range of materials to make and evaluate a product - Use their dominant hand, with increasing control to complete activities, such as drawing, writing, painting, cutting and joining - Create increasingly detailed drawings to create a model of their choice - build structures, exploring how they can be made stronger, stiffer and more stable explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products
Key vocab	Design, Make, Evaluate, Investigating, User, Product, Purpose, Design criteria, Function, Names for all tools and equipment used. Model, Scissors, cut, join, fix, moving, finishing, component, material.			
Key Vocab	Design, Make, Join, fix, running stitch, back stitch, shape, design, evaluate, finishing, Names for all tools and equipment used.	Build, Make, Diet, Fruit, Vegetables, Cutting, chopping, Tasting, Sensory, Method, Ingredients, Measure, spoons, Peeler, Recipe, chopping board, Names for all equipment used.	Design, Make, Evaluate, Investigating, User, Product, Purpose, Design criteria, Function,	Sellotape, Glue Stick, Masking Tape, Paper Clip, Ruler, Straws, Join, 2-D, 3-D, Cut, Fold, paint, slider
Suggested support for children with	• Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view • lists of key words, posters, etc can help pupils to recognise and spell the names of important pieces of equipment.		• Instructions are given clearly and reinforced visually, where necessary • Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view. • Equipment easily available and close by	• Instructions are given clearly and reinforced visually, where necessary. • Use tools and equipment 'with help where needed', as without this support they may not be able to achieve

	• Flow diagrams of key processes, time plans or design prompts with graphics may also be helpful. • look at a limited range of products at one time • Use a tick list or wallchart in relation to completing the project • Adult my need to cut ingredients		• time to think about questions before being required to respond • time to explain, and • respect for their responses to questions and contributions to discussions labelled clearly to encourage • Use tools and equipment 'with help where needed', as without this support they may not be able to achieve • Make sure that pupils, particularly those with BESD, judge their own work against the design specification rather than against the work of other pupils • look at a limited range of products at one time • Break down the designing and making stages into small manageable steps, and incorporate designing into 'mini making' tasks with specific targets.	• Instructions are given clearly and reinforced visually, where necessary • Break down the designing and making stages into small manageable steps, and incorporate designing into 'mini making' tasks with specific targets. • Use a tick list or wallchart so that pupils are clear about what they are working towards and how far they have got in relation to completing the project • video presentations have subtitles for deaf or hearing-impaired pupils and those with communication difficulties, where required. Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view
Step				
1	Research: explore seasonal tree design through hands on and a range of media (e.g., printed pictures and on IWB)	Research / explore: - Identify and name different fruits - Taste test fruit and evaluate which to use for best combination - written comments about each fruit. Discuss where fruit fits into food groups: • Fruit and vegetables • Carbohydrates • Proteins • Dairy Fats and Oils	Research/ explore: - display examples of models build with reclaimed and/or recyclable materials. - have different reclaimed items and materials for children to examine and consider what to use and how to use it.	Research: look at examples of sliding mechanisms. e.g. sliders in books (pop-up book), toys etc. Examine how they are made and how they work.
2	- Design a seasonal tree considering how it will look like those seen in step 1 and adding their own personal design. - Simple drawings of their planned design with labels of material used in each element and stitch type.	Design: - draw planned fruit salad labelling the fruit. - List equipment needed - write simple method/steps	Design: - Write and talk about what they are going to do and what materials and items they will need. Label design with materials to use. - draw the dinosaur the plan to make. Detail, in writing, the items they will use. - describe how items can be fixed together to make the model and fixing techniques. E.g. tape, glue	Design: - begin to design the slider by illustrating the desired image on a design sheet. Label the design with arrows indicating slider direction. - Explain (written) how the slider will work (will the moving part move up and down or side to side?) Which medium will they use to add colour? (pencils, paint etc)
3	Make:	Make: - follow design	Make:	Make:

	- follow design as closely as possible. - Use scissors to cut material (some may need adult assistance). - Fixing using running stitch *and* back stitch.	- cut fruit with dinner knife (harder fruit may need adult help /supervision.) - Mix in a bowl with spoon or fork to combine ingredients used. - scoop ingredients, with a small spoon, transferring it to a bowl to serve.	- Fix model together using various joining techniques. E.g. gluing, taping, (adults may need to assist cutting the thicker materials) - Refer to design - adapt design where needed	- Cut the out the slider out and illustrate, staying as faithful as possible to design. - Draw the landscape marking where the slider will be inserted through a small slit. - encourage evaluation during making process. Are they having to make changes? - Independently mark and cut shape for slider.
4	Written evaluate: - What they like about the seasonal tree - What was successful? - What could they do differently next time?	Evaluate considering: - written evaluation detailing what they like/dislike about the food. - What was easy and difficult? - would they change anything for next time?	Evaluate: - Written evaluation reflecting on model and referring to their design. - Be proud of their creations and enjoy sharing them with their peers and adults. - Say what they like/dislike - What could they do differently next time/how would they improve the model? Their design? - Which part did they enjoy making the most? - What did they find challenging? Why?	Evaluate: - Share their creations, explaining the process they have used. - Finished product accurate to design - Look of product. - Quality of the finished product.
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The Design and Technology Curriculum for Year 2 (Cycle B)

	Autumn Term 11 hours		Spring Term 8 hours	Summer Term 10 hours
Unit	**Light and Sound** (Textiles) 8 hours	**Light and Sound** (Cooking and Nutrition) 3 hours	**Wagons Roll** (Technical knowledge) 8 hours	**Open Your Eyes** (Technical knowledge) 10 hours
	By the end of this unit: - Design, make and evaluate – Explore materials and techniques to create a model. e.g. model boat (linked to The Lighthouse Keepers Lunch).	By the end of this unit: - make a food dish requiring the skills below. (e.g. sandwich) - scooping (e.g. jam) - spreading (e.g. butter and/or jam) cutting (e.g. sandwich) - Link to the learning. E.g. The Lighthouse Keepers Lunch - Hold a knife and fork/spoon correctly, with adult support.	By the end of this unit: - Use movement components, such as wheels and axels. - Make moving vehicle using pre-cut axels. - Evaluate vehicle and construction finish. - 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	By the end of this unit: - create an applique on felt - use a needle and thread - use stitching techniques to fix felt. - use the running stitch, back stitch, cross stitch and French knot.
Key vocab	Design, Make, Evaluate, Investigating, User, Product, Purpose, Design criteria, Function, Names for all tools and equipment used.			
Key Vocab	Sellotape, Glue Stick, Masking Tape, Paper Clip, Plasticine, Ruler, Straws, Join, 2-D, 3-D,	Build, Make, Diet, Fruit, Vegetables, Cutting, Chopping, Tasting, Sensory, Method,	Sellotape, Glue Stick, Masking Tape, Paper Clip, Plasticine, Ruler, Straws, Join, 2-D, 3-D, Cut, Fold, Fix, Slider, lever, Pivot, Slot, Materials, moving, mechanism	Fabric, Template, Pattern, pieces, Mark out, Decorate, Suitable, Quality, Needle, Pin,

	Cut, Fold, Join, Fix, 2-D, 3-D, Cut, Fold, Join, Fix	Ingredients, Measure, spoons, Peeler, Recipe, chopping board		Stitch, Thread Children will create applique on felt by using a needle, thread and stitching techniques.
Suggested support for children with additional needs	• talking about what they have done easier than talking about what they plan to do • lists of key words, posters, etc can help pupils to recognise and spell the names of important pieces of equipment. • look at a limited range of products at one time • Instructions are given clearly and reinforced visually, where necessary • Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view. There is room for pupils with mobility difficulties to obtain their own resources, equipment and • Tripod pencil grips available • Ask pupils open-ended questions at first, to elicit original ideas and get a feel for their level of experience. Have real examples ready.	• Instructions are given clearly and reinforced visually, where necessary • Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view. There is room for pupils with • mobility difficulties to obtain their own resources and equipment • talking about what they have done easier than talking about what they plan to do lists of key words, posters, etc can help pupils to recognise and spell the names of important pieces of equipment. • time plans or design prompts with graphics may also be helpful. look at a limited range of products at one time	• Use tools and equipment 'with help where needed', as without this support they may not be able to achieve • Make sure that pupils, particularly those with BESD, judge their own work against the design specification rather than against the work of other pupils • Instructions are given clearly and reinforced visually, where necessary • Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view. • Tripod pencil grips available • Adult help with cutting or adult may need to cut ingredients • Pupils could contribute to product evaluation, where appropriate, using simple choice cards with words and/or symbols, eg for like/dislike, simple ranking or recording sheets.	• Instructions are given clearly and reinforced visually, where necessary • Remember that pupils with an autistic spectrum disorder (ASD) may have low awareness of danger. • Use tools and equipment 'with help where needed', as without this support they may not be able to achieve • Instructions are given clearly and reinforced visually, where necessary • Break down the designing and making stages into small manageable steps, and incorporate designing into 'mini making' tasks with specific targets. Use a tick list or wallchart so that pupils are clear about what they are working towards and how far they have got in relation to completing the project
Step				
1	Explore: different pictures of models. e.g boats – link to Lighthouse Keepers Lunch. Written or verbal outcome. Discuss and Research:	Design: - Drawing showing filling. (e.g. jam, butter, bread) - Draw labelled pictures.	Research: simple working of components and movements such as wheels and axels.	Explore: examples of and name the different stiches they can use – running, back, cross. Show cross stitch and French knot as some may attempt these with adult guidance.

	how we could make the model out of reclaimed materials. Stick pictures of favourite model in books. Annotate pictures highlighting key reasons and features for selection.			
2	Design: - label drawing including material to be used.	Make: - Put bread on plate/ chopping board - Using a dinner knife/ butter knife to spread butter - Scoop the filling (e.g. jam) with a teaspoon onto the bread. Spread with dinner knife - Cut sandwich with dinner knife.	Plan: Labelled drawing of wagon (wheels, axel etc.) Detail how the axel and wheels will be fixed (e.g. glue)	Design and draw their intended applique design. Design to be labelled with the stitching they will use as well as colour or threads.
3	Make: Focus on cutting independently with scissors and joining independently with glue or tape. Thet decide on best for their model. Paint models selecting suitable brush and colours, mixing where necessary and staying faithful to the design.	Evaluate: - Write whether they liked the sandwich - What was good/bad about the sandwich - say what went well - which part they liked making the most - What they found difficult - How they might do it differently next time	Make: construct wagon following plan. If wooden axel is to be cut to size use saw and cutting guide with adult supervision. Fix elements together using glue. Adult supervision is glue gun used.	Make applique using different stitches: - running stitch - back stitch Some may also include: - cross stitch - French knot
4	Evaluate: - Quality of joining - Fixing – neat? Clean? Strong? could there be better ways? - Cutting – accurate? Clean cut?		Evaluate: - Cutting of materials – accurate? - Fixing of materials (e.g. gluing wheels and axel) - Construction of vehicle	Evaluate: - accurate to their design - quality of the joining and stitching - Areas of improvement what to do differently

	- Painting - true to design?				
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The Design and Technology Curriculum for Year 3				
	Autumn Term **8 hours**	**Spring Term** **10 hours**		**Summer Term** **5 hours**
Unit	**Stone Age** (Technical Knowledge**)** **8 hours**	**Monsters and Myths** (Technical Knowledge) 5 hours	**Monsters and Myths** (Cooking and Nutrition) 5 hours	**Egyptians** (Cooking and Nutrition) 5 hours
	By the end of this unit: • Children will have researched, designed, made (following annotated plans) and evaluated roundhouse models that they have constructed. • Skills covered - measuring, marking out, cutting and scoring.	By the end of this unit: • Use levers and linkages to create movements of a monster trap.	By the end of this unit: • Make a Greek salad using bridge and claw (to cut), draining, and shelling a hard-boiled egg.	By the end of this unit: • Use appropriate techniques to, separate an egg, cream, sugar and fat together and fold flour into a mixture to bake savoury products inclusive of a flavour • Research and follow traditional savoury Egyptian recipe. E.g. Meammar Rice

Key vocab	Design brief, Innovative, Inventor, Process, Accurate, Intention, Health and safety, Names for all tools and equipment used.			
Key Vocab	Shell structure, Scoring, Tabs, Adhesive, Assemble, Graphics, Prototype, Accurate	System, Attaching, Tabs Adhesive, Assemble, Graphics	Grams/Kilograms, Millilitre/Litre, Temperature, Celsius, Hygiene, Utensils, Texture, Appearance, Preference, Edible, Reared, Grown, Processed, Seasonal, Varied diet	Grams/Kilograms, Millilitre/Litre, Temperature, Celsius, Hygiene, Utensils, Texture, Appearance, Preference, Edible, Reared, Grown, Processed, Seasonal, Varied diet
Suggested support for children with additional needs	• time to think about questions before being required to respond • time to explain, and • respect for their responses to questions and contributions to discussions labelled clearly to encourage • Use tools and equipment 'with help where needed', as without this support they may not be able to achieve • Make sure that pupils, particularly those with BESD, judge their own work against the design specification rather than against the work of other pupils	• talking about what they have done easier than talking about what they plan to do • Adult help with cutting and fixing • lists of key words, posters, etc can help pupils to recognise and spell the names of important pieces of equipment. • Flow diagrams of key processes, time plans or design prompts with graphics may also be helpful. • look at a limited range of products at one time	• Instructions are given clearly and reinforced visually, where necessary • Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view. • Tripod pencil grips available • Adult help with cutting or adult may need to cut ingredients • Pupils could contribute to product evaluation, where appropriate, using simple choice cards with words and/or symbols, eg for like/dislike, simple ranking or recording sheets.	• Instructions are given clearly and reinforced visually, where necessary • Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view. • Tripod pencil grips available • Adult help with cutting and fixing or adult may need to cut ingredients • Pupils could contribute to product evaluation, where appropriate, using simple choice cards with words and/or symbols, eg for like/dislike, simple ranking or recording sheets.
Step				
1	Research and explore: Explore examples of roundhouse models and the materials used.	Explore and research: levers, linkages and traps.	Explore: Greek salad ingredients. Taste test. Investigate and analyse a range of existing products	Explore and research: Investigate and analyse a range of existing products. Traditional Egyptian recipes. Choose one to create and use ingredients required.
2	Design: draw and annotate sketches.	Design: annotated drawings noting levers and linkages and how they operate in design.	Design: annotated drawing of salad ingredients.	Design: Detailed labelled drawing of the chosen recipe Written instructions,
3	Make: produce roundhouse using appropriate fixing.	Make:	Make:	Make: chosen recipe. Cutting techniques – claw, bridge.

	e.g. glue Cut with scissors (paper/card) or saw (with guide) for wood. Add detail and paint models.	construct trap using fixings. e.g.: tape, glue, split pins	Greek salad following the design/recipe. Cutting techniques: claw, bridge.	mixing, scooping, spreading skills.
4	Evaluate: - Accuracy to design - cutting - fixing - appearance - finish	Evaluate: - levers - linkages - fixing - appearance - operation (links etc.)	Evaluate: - Taste - size of cut ingredients - good mix of ingredients - appearance - positive points areas to improve next time	Evaluate: - Taste - size of cut ingredients - good mix of ingredients - appearance - positive points areas to improve next time

The Design and Technology Curriculum for Year 4

	Autumn Term **6 hours** *Cooking experience with Roots to Food takes place early in the term. Year 4 skills and knowledge used during the experience.* (Cooking and Nutrition)		**Spring Term** **8 hours**	**Summer Term** **8 hours**
Unit	(Cooking and Nutrition) 6 hours	(Technical knowledge) 8 hours	(Technical knowledge) 8 hours	(Textiles) 8 hours
	By the end of this unit: • Follow a recipe • Assemble & cook Ingredients • controlling oven temperature • Know about a healthy diet • Know that to be active and healthy, food and drink is required • Use chopping, slicing, grating, mixing, spreading, kneading and baking	By the end of this unit: • Design and make a Roman Mosaic • Select tools and materials suitable to the task • explain their choices and assemble components to make Roman Mosaics.	By the end of this unit: • Use simple electrical systems to control levers and gears following making a prototype of a moving (e.g., lifting/raising) part of a model. • Identify construction methods of model. E.g., beam and arch bridges. • Measure and mark out accurately on material used. E.g., wood, card, cardboard • Identify stronger and weaker structures. • Find different ways to reinforce structures. • Make a model of a fairground ride.	By the end of this unit: • Create a Saxon purse selecting different materials and components relating to their functional properties (Textiles) • Use sewing stitches learnt in previous years (running, back) to join the purse together. • Add an attachment (e.g., a button) with thread to develop joining techniques
Key vocab	Design brief, Innovative, Inventor, Process, Accurate, Intention, Health and safety, Names for all tools and equipment used.			

Key Vocab	name of products, names of equipment, utensils, techniques and ingredients, texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet	Scoring, Tabs, Adhesive, Assemble, Graphics, Prototype, Technique, Component	Motor, Series circuit, Fault, Connection, Toggle, Switch, Insulator, Conductor, Control, Programme, Device, Battery, Battery Holder, Light Bulb, Bulb Holder, Buzzer	Technique, Component, Templates, Stiffening, Seam allowance, Annotated sketch, Prototype, Back stich, running stitch, Tacking, Binca, Cross stitch, Loom, Pinking Shears, Sewing machine
Suggested support for children with additional needs	• time to think about questions before being required to respond • time to explain, and • respect for their responses to questions and contributions to discussions labelled clearly to encourage • Use tools and equipment 'with help where needed', as without this support they may not be able to achieve • Make sure that pupils, particularly those with BESD, judge their own work against the design specification rather than against the work of other pupils		• talking about what they have done easier than talking about what they plan to do • Adult help with cutting and fixing • lists of key words, posters, etc can help pupils to recognise and spell the names of important pieces of equipment. • Flow diagrams of key processes, time plans or design prompts with graphics may also be helpful. • look at a limited range of products at one time	• talking about what they have done easier than talking about what they plan to do • Adult help with cutting and fixing • lists of key words, posters, etc can help pupils to recognise and spell the names of important pieces of equipment. • Flow diagrams of key processes, time plans or design prompts with graphics may also be helpful. • look at a limited range of products at one time
Step				
1	Explore: Possible link to Romans – Were the Romans healthy eaters? Know about a healthy diet. Know that to be active and healthy, food and drink is required.	Explore: Roman mosaics. Designs, materials used, reason for them being made – who were they for? Why were they made? where would they be found?	Explore: how to reinforce a structure to improve its strength. How different shapes in structures create strength. Create design criteria. Investigate and analyse a range of existing products.	Research: Saxon purses. What are they like and what material are they made from? Examine material, stitching, size and shape.
2	Explore: Roman bread – how it is made and what it looks like. Explore questions such as:	Developing technique: practise pattern and technique. E.g. use pieces of card to make a mock-up of a mosaic design.	Design: model to have moving part operated with lever or pully (e.g. drawbridge) driven by an electrical motor. Annotated sketches, labelled cross-sectional and/or exploded diagrams.	Explore: Practise stitching on sample pieces of fabric. (running, cross, back)

	Who would have eaten it? Was it different for the rich and poor? Look at recipe for Roman bread (ingredients and method). One can be found at Scholastic.co.uk (https://images.scholastic.co.uk/assets/a/13/f5/recipe-roman-bread-760037.pdf) also at Getty.edu (https://www.getty.edu/news/baking-bread-the-roman-way/)			
3	Make: Follow a recipe to make the bread. Skills: • Controlling an oven temperature • mixing • spreading • kneading • baking	Design: Mosaic including border.	Make: Construction using wood. Cut with wood saw and guide. Fix with glue gun (supervised by an adult).	Design: Clear annotated drawings of purse. Label stitches (running, cross, back) Include details of the attachment (e.g., button)
4	Evaluate: Finished bread for taste, texture, and overall appearance. Good points from process. Points to improve next time.	Make: Use mosaic kit - mosaic squares kit readily available online. E.g. tts-group.co.uk, Amazon	Evaluate: - Ride construction and fixing (gluing quality – strength) - accuracy to design - operation of moving part and mechanisms moving it - positive areas - areas for improvement	Make: Purse following design. Pin material Cutting – scissors fixing – stitching (running, cross, back)
5		Evaluate: - fixing of mosaic pieces (e.g. glue) - accurate to design - appearance positives - challenging areas		Evaluate: - stitching - accuracy to design - aesthetic appearance - finish of purse

The Design and Technology Curriculum for Year 5

	Autumn Term **6 hours** *Cooking experience with Roots to Food takes place early in the term. Year 5 skills and knowledge used during the experience*		Spring Term **8 hours**	Summer Term **5 hours**
Unit	**China** Cooking and Nutrition 5 hours	**Space** (Technical knowledge) 6 hours	**Vikings** (Technical knowledge) 8 hours	**Leisure and Entertainment** (Cooking and Nutrition) 5 hours
	By the end of this unit: Know that beef is the name of meat from cattle / cows. Know how beef is reared and processed Understand the ethical issues around the way in which cattle should be farmed Prepare and cook a nutritional meal. Make a Chinese dish with Roots to Food.	By the end of this unit: Children will make a stomp rocket by following a design criteria and draw cross-sectional diagrams as part of the design process.	By the end of this unit: Design and make an effective Viking shield. Correct joining of the material (wood) following the original design. Use suitable joining methods. E.g. glue	By the end of this unit: • research different global foods. • research food that could be cooked when camping (search 1960 BBQ. See www.vintagecookbooks.com, 1960's BBQ) • Design the dish from a chosen recipe and write up the method.
Key Vocab	Research, Specification, Analyse, Combine, Construct, Criteria, Evaluate, Requirements, Functionality, Diagram, Names for all tools and equipment used.			

Key Vocab	Yeast, Dough, Bran, Seasonality, Source, Intolerance, Allergy, Varied, Gluten, Nutrition	Frame, Stiffen, Reinforce, Stability, Specification, System, Input, Output, Attaching, Syringe, Plunger, Pneumatic, Compression, Inflate, Deflate	Structure, Shell structure, Scoring, Tabs, Adhesive, Assemble, Graphics, Prototype	Yeast, Dough, Bran, Seasonality, Source, Intolerance, Allergy, Varied, Gluten, Nutrition
Suggested support for children with additional needs	• Instructions are given clearly and reinforced visually, where necessary • Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view. • Tripod pencil grips available • Adult help with cutting and fixing or adult may need to cut ingredients • Pupils could contribute to product evaluation, where appropriate, using simple choice cards with words and/or symbols, eg for like/dislike, simple ranking or recording sheets	• Instructions are given clearly and reinforced visually, where necessary • Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view • video presentations have subtitles for deaf or hearing-impaired pupils and those with communication difficulties, where required. • Use a tick list or wallchart so that pupils are clear about what they are working towards and how far they have got in relation to completing the project look at a limited range of products at one time	• talking about what they have done easier than talking about what they plan to do ○ Flow diagrams of key processes, time plans or design prompts with graphics may also be helpful. ○ Adult help with cutting and fixing ○ lists of key words, posters, etc can help pupils to recognise and spell the names of important pieces of equipment.	• Instructions are given clearly and reinforced visually, where necessary • Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view. • Tripod pencil grips available • Adult help with cutting and fixing or adult may need to cut ingredients • Pupils could contribute to product evaluation, where appropriate, using simple choice cards with words and/or symbols, eg for like/dislike, simple ranking or recording sheets
Step	Watch: 'Tesco – Burly Beef Farm to Fork' & 'RSPCA website – Beef welfare key issues'			
1	Explore: Where does food come from (farms, fields etc.)	Explore and research: What is a stomp rocket?	Research: different Viking artefacts.	Research: global food and what was eaten at a 1960s BBQ. Research ingredients of the dishes.
2	Research: Chinese food – what is healthy and what are the ingredients. Investigate and analyse a range of existing products	Design: Label with exploded cross-sectional diagrams.	Design: Viking shield with detailed labelled drawings. Annotate design – explaining materials used and fixing techniques (e.g. glue)	Design: Dishes / recipes based on 1960s BBQ food. Labelled drawings of proposed dish. Write up recipe instructions with quantities (Maths CC link)
3	Explore:	Make:	Make:	Make:

	Dishes to make and select.	Complete design and begin construction. Join to prevent air loss in system (fix joins with tape, where needed) Make suggestion for alternative design.	- Cut and join with accuracy to ensure a good-quality finish to the product	Prepare – cutting (bridge, claw) mix ingredients – using suitable mixing tool e.g. spoon. Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of BBQs
4	Make: Chinese dishes chosen by class/Roots to Food. Bridge and claw cutting techniques – dicing or cutting food evenly.	Launch and evaluate: - Construction - Design (accuracy to design - Changes to design - Appearance - Success of flight. Including possible reasons for performance	Evaluate: - accuracy to design - quality of cutting - quality of fixing - finish	Evaluate: - taste - size of cut ingredients - mixing of ingredients - appearance of food - positives and improvements
5	Evaluate: - taste of dish - cutting of ingredients - identify how to change a recipe to improve a dish - positive points - areas to improve	.		

The Design and Technology Curriculum for Year 6

	Autumn Term 8 hours	Spring Term 8 hours	Summer Term 6 hours
Unit	**WW2 Bunting** (Textiles) 8 hours	**Walk on the Wild Side** (Technical knowledge) 8 hours	**London** (Cooking and Nutrition) 6 hours
	By the end of this unit: • Learn/recap the sewing methods used to make bunting (e.g. running stitch) • Design and make bunting (for Christmas Fare)following their design. • Evaluate finished product	By the end of this unit: • Research bird box design • consider materials, joining techniques, equipment needed and design • Design bird box and include a blown-up cross-sectional labelled diagram • Make bird box from design using wood, cut to size with a saw, and joining techniques • Evaluate the bird box against the design criteria • apply their understanding of how to strengthen, stiffen and reinforce more complex structures	By the end of this unit: • Children will research and develop a menu for the Gala Dinner • Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed. • Peel, cut and prepare ingredients
Key Vocab all areas	Research, Specification, Analyse, Combine, Construct, Criteria, Evaluate, Requirements, Functionality, Diagram, Names for all tools and equipment used.		
Key Vocab	Structure, Shell structure, Scoring, Tabs, Adhesive, Assemble, Graphics, Prototype	Bird box, Structure, Frame, Stiffen, Reinforce, Triangulation, Stability, Temporary, Permeant, Specification, Saw, Join, Fix	Yeast, Dough, Bran, Seasonality, Source, Intolerance, Allergy, Varied, Gluten, Nutrition

Suggested support for children with additional needs	• look at a limited range of products at one time • Talking about what they have done might be easier than talking about what they plan to do • Adult help with cutting and fixing • lists of key words, posters, etc can help pupils to recognise and spell the names of important pieces of equipment. • Flow diagrams of key processes, time plans or design prompts with graphics may also be helpful. • Keep amount of instructions to a minimum • break down Into manageable steps	• Instructions are given clearly and reinforced visually, where necessary • Remember that pupils with an autistic spectrum disorder (ASD) may have low awareness of danger. • Use tools and equipment 'with help where needed', as without this support they may not be able to achieve • Break down the designing and making stages into small manageable steps, and incorporate designing into 'mini making' tasks with specific targets. • Use a tick list or wallchart so that pupils are clear about what they are working towards and how far they have got in relation to completing the project • Keep amount of instructions to a minimum • break down Into manageable steps	• Instructions are given clearly and reinforced visually, where necessary • Demonstration area it is clearly laid out, uncluttered and gives all pupils a clear view. • Tripod pencil grips available • Adult help with cutting or adult may need to cut ingredients • Pupils could contribute to product evaluation, where appropriate, using simple choice cards with words and/or symbols, eg for like/dislike, simple ranking or recording sheets. • Keep amount of instructions to a minimum • break down Into manageable steps
Step			
1	Research: designs for bunting including size, fabric and stitches used. Investigate and analyse a range of existing products.	Research: what a bird box is and the different designs.	Research: a three-course meal – Gala Dinner.
2	Design: annotated sketches, pattern pieces and computer-aided design.	Design: share ideas through discussion, annotate sketches, cross-sectional and/or exploded diagrams.	Explore: starter, main and dessert. Discuss options for dishes.
3	Make: Use prototype pieces to practice stitches (running, back, cross, French knot) and method of making.	Make: prototype bird box (e.g. using art straws, tape or other fixing technique and cardboard).	Design/plan: all elements of the Gala Dinner.
4	Make: stich together using proposed stitching (as in step 3).	Make – join prepared wood and assemble bird box following the design. Cutting – saw with guide fixing - gluing	Explore: how the ingredients get from farm to fork (See 'Tesco - Burly Beef Farm to Fork' 'RSPCA website - Beef welfare key issues')
5	Evaluate: - quality of joining / stitching - finish of product - accuracy to design - adapting to arising issues - positive points - areas to improve /change	Evaluate: - quality of joining / gluing - quality of cutting with saw - accuracy of measuring - finish of product - accuracy to design - adapting to arising issues	Gala Dinner. Prepare tables welcome guests serve food and take to tables serve drinks at tables clear tables between courses

		- positive points - areas to improve /change	