

## **Banks Lane Infant & Nursery Design & Technology Curriculum**



### **Intention**

Design and Technology gives children the opportunity to create products they can see, touch and taste for themselves. It inspires children to use creativity and imagination to design and make products that solve real and relevant problems within a variety of contexts. It helps develop children's skills through collaborative learning, problem-solving, and knowledge in design, materials, structures and mechanisms. Children are encouraged to be creative and innovative, and are actively encouraged to think about important issues such as sustainability and enterprise. Children learn how to take risks to becoming resourceful, innovative, enterprising and capable citizens, contributing towards our values:

**Collaboration | Effort | Excellence | Respect  
And that we can make a difference**

### **Design & Technology Experiences & Opportunities (Cultural Capital)**

Health Month – designing a healthy meal at home

Mrs Hines and Mrs Worthington sewing

Growing club

World Environment Day

Lego City

Reception					
Educational Programme-EYFS Framework					
The development of children’s artistic and cultural awareness supports their imagination and creativity. It is important that children have regular opportunities to engage with the arts, enabling them to explore and play with a wide range of media and materials. The quality and variety of what children see, hear and participate in is crucial for developing their understanding, self-expression, vocabulary and ability to communicate through the arts. The frequency, repetition and depth of their experiences are fundamental to their progress in interpreting and appreciating what they hear, respond to and observe.					
Development Matters		Our School-Progression in Skills		Early Learning Goals	
<ul style="list-style-type: none"> <li>Return to and build on their previous learning, refining ideas and developing their ability to represent them.</li> <li>Create collaboratively sharing ideas, resources and skills.</li> <li>Develop storylines in their pretend play.</li> </ul>		<ul style="list-style-type: none"> <li>Talk about ideas, describing key design elements.</li> <li>Use a range of small tools with increasing control and accuracy.</li> <li>Explore ways to cut, join and combine materials and components safely.</li> <li>Talk about existing products and their own creations.</li> <li>Begin to build structures from a range of materials.</li> <li>Explore the properties of different fabrics using all their senses.</li> <li>To choose and use a variety of materials and tools in their independent play.</li> <li>Make links between health and food choices.</li> <li>Know that food can be grown.</li> <li>Use cutlery to prepare and eat food.</li> </ul>		<p><b>Creating with Materials</b></p> <ul style="list-style-type: none"> <li>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</li> <li>Share their creations, explaining the process they have used.</li> <li>Make use of props and materials when role playing characters in narratives and stories.</li> </ul>	
Autumn 1 Text: Jack and the Flum Flum Tree	Autumn 2 Text: Stickman	Spring 1 Text: The Naughty Bus	Spring 2 Text: The Day the Crayons Quit	Summer 1 Text: The Night Pirates	Summer 2 Text: The Way Back Home
<p><b>Daily Access to the Den and Quad;</b> large and small tools, variety of materials, real life tools (e.g. screwdrivers), fixings (e.g. glue, tape, string), construction and modelling toys</p> <ul style="list-style-type: none"> <li>Return to and build on their previous learning, refining ideas and developing their ability to represent them.</li> <li>Create collaboratively sharing ideas, resources and skills.</li> <li>Develop storylines in their pretend play.</li> <li>To choose and use a variety of materials and tools in their independent play.</li> </ul>					
<ul style="list-style-type: none"> <li>Use a range of small tools with increasing control and accuracy.</li> <li>Explore ways to cut, join and combine materials and components safely.</li> <li>Begin to build structures from a range of materials.</li> <li>Make links between health and food choices.</li> <li>Know that food can be grown.</li> <li>Use cutlery to prepare and eat food.</li> </ul>	<ul style="list-style-type: none"> <li>Know that food can be grown.</li> <li>Use a range of small tools with increasing control and accuracy.</li> <li>Explore ways to cut, join and combine materials and components safely.</li> <li>Talk about existing products and their own creations.</li> <li>Begin to build structures from a range of materials.</li> </ul>	<ul style="list-style-type: none"> <li>Talk about ideas, describing key design elements.</li> <li>Use a range of small tools with increasing control and accuracy.</li> <li>Explore ways to cut, join and combine materials and components safely.</li> <li>Talk about existing products and their own creations</li> </ul>	<ul style="list-style-type: none"> <li>Begin to build structures from a range of materials.</li> <li>Explore the properties of different fabrics using all their senses.</li> <li>Explore ways to cut, join and combine materials and components safely.</li> <li>Talk about existing products and their own creations.</li> </ul>	<ul style="list-style-type: none"> <li>Talk about ideas, describing key design elements.</li> <li>Use a range of small tools with increasing control and accuracy.</li> <li>Explore ways to cut, join and combine materials and components safely.</li> </ul>	<ul style="list-style-type: none"> <li>Make links between health and food choices.</li> <li>Know that food can be grown.</li> <li>Use cutlery to prepare and eat food.</li> </ul>

Year 1	Moving Mechanisms	Structures	Textiles	Food and Nutrition	Vocabulary
<p><b>1:1</b>  <b>Big Question:</b> A World Without Trees?  <b>Topic:</b> Into the Woods  <b>Theme:</b> Outdoors  <b>Book:</b> The Tree The Gruffalo</p>					
<p><b>1:2</b>  <b>Big Question:</b> How did the dinosaurs leave their mark on the world?  <b>Topic:</b> The Land Before Time  <b>Theme:</b> Forever Changing  <b>Book:</b> Giganotosaurus</p>	<p><b>Sliders and Levers</b> To design, make and evaluate a <b>moving dinosaur</b>, for <b>[user]</b> for/to <b>[purpose]</b>  <b>IEA:</b> looking at pop-up books, exploring mechanisms What? Who for? What for?  <b>FPT:</b> experimenting with different sliders and levers</p>				<p>Slider, lever, pivot, slot, bridge/guide, mechanism                      Card, masking tape, paper fastener, join                      Pull, push, up, down, straight, curve, forwards, backwards                      Design, make, evaluate, user, purpose, ideas, design criteria, product, function</p>
<p><b>2:1</b>  <b>Big Question:</b> Are mistakes a good or bad thing?  <b>Topic:</b> London's Burning</p>		<p><b>Freestanding Structures</b>                      To design, make and evaluate a <b>bridge</b>, for <b>[user]</b> for/to <b>[purpose]</b>.  <b>IEA:</b> looking at pictures of bridges – label parts of a bridge structure.</p>			<p>Cut, fold, join, fix                      Structure, wall, tower, weak, strong, base, top, underneath, side edge, surface, thinner, thicker, corner, straight, curved freestanding structures, stability</p>

<p><b>Theme:</b> Learning from the past <b>Book:</b> Vlad and the Great Fire of London</p>		<p><b>FPT:</b> joining different materials for strength and stability, use of construction kits, spaghetti and midget gems</p>			<p>Design, make, evaluate, user, purpose, ideas, design criteria, product, function</p>
<p><b>2:2</b> <b>Big Question:</b> What can we learn from fairy tales? <b>Topic:</b> Once Upon A Time <b>Theme:</b> Actions/consequences/right and wrong <b>Book:</b> Selection of fairy tales</p>			<p><b>Templates and Joining Techniques</b> To design, make and evaluate a <b>hand puppet</b>, for <b>[user]</b> for/to <b>[purpose]</b>. <b>IEA:</b> looking at different hand puppets – how are they joined together? What materials are used? Draw and label existing products – fabrics, fastening and techniques. <b>FPT:</b> experimenting with different joining techniques (glue, sellotape, staples etc.), explore different fabrics</p>		<p>Tools, fabrics, components Template, join, decorate, finish, applique, sew Features, suitable, design criteria, make, evaluate, user, purpose, function, design</p>
<p><b>3.1</b> <b>Big Question:</b> Can doing something small make a big change?</p>				<p><b>Preparing Fruit and Vegetables</b> To design, make and evaluate a <b>soup</b>, for <b>[user]</b> for/to <b>[purpose]</b> using food we have grown.</p>	<p>Fruit and vegetable names, names of equipment and utensils Sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard</p>

<p><b>Topic:</b> What a Wonderful World!  <b>Theme:</b> Responsibility  <b>Book:</b> Bog Baby</p>				<p><b>IEA:</b> examine range of vegetables – handle, smell and taste. Focus on likes / dislikes and why (texture, taste etc.)  <b>FPT:</b> food hygiene, using simple utensils for food processing e.g. using a knife and chopping board.</p>	<p>Skin, seed, pip, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients, planning, tasting, design, evaluate, criteria, pith, salad</p>
<p><b>3:2</b>  <b>Big Question:</b> What is beyond the horizon?  <b>Topic:</b> Out Of This World  <b>Theme:</b> The world and beyond: where do we belong?  <b>Book:</b> Whatever Next?</p>					

## Banks Lane Infant & Nursery School | Year 1 Design & Technology End Points

Year 1	Design	Make	Evaluate	Technical Knowledge	Cooking and Nutrition
	<ul style="list-style-type: none"> <li>➤ Use models, pictures and words to describe what I want to do.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Show that I can create products for a use and purpose using my practical ideas.</li> <li>➤ Use tools and manipulate materials with help where needed.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Talk about mine and other people's work in simple terms and describe how a product works.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Explain what I am making and which tools I am using.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Beginning to understand where food comes from.</li> <li>➤ Beginning to know what a healthy diet is.</li> <li>➤ Prepare simple dishes.</li> </ul>

Children working below ARE	Children exceeding ARE



Year 2	Moving Mechanisms	Structures	Textiles	Food and Nutrition	Vocabulary
<p><b>1:1</b>  <b>Big Question:</b>                      What makes a house a home?  <b>Topic:</b> There's No Place Like Home  <b>Theme:</b>                      Belonging/special places  <b>Book:</b> On the Way Home</p>		<p><b>Freestanding Structures</b>                      To design, make and evaluate a <b>lego house</b>, for <b>[user]</b> for/to <b>[purpose]</b> to ensure strength and stability.  <b>IEA:</b> looking at buildings – brick structure for strength / stability. Draw / label a building using brick structure.  <b>FPT:</b> construction kits, how to strengthen an existing product.</p>			<p>Join, fix, build                      Structure, wall, tower, framework, weak, strong, strength, stability, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, freestanding structure, frame structure, shell structure, components, buttress, brick bonding, mock-up                      Square, rectangle, cuboid, cube                      Design, make, evaluate, user, purpose, ideas, design criteria, product, function</p>
<p><b>1:2</b>  <b>Big Question:</b> A Victorian: more challenging than yours?  <b>Topic:</b> What the Dickens?  <b>Theme:</b>                      Differences and changes over time</p>	<p><b>Wheels and Axels</b>                      To design, make and evaluate a <b>Victorian toy</b>, for <b>[user]</b> for/to <b>[purpose]</b>.  <b>IEA:</b> explore existing wheeled toys – how many, size, position, how are they fixed? Wheels walk around school – record how wheels and</p>				<p>Vehicle, wheel, axle, axle holder, chassis, body, cab, dowel                      Assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism, friction                      Names of tools, equipment and materials used                      Design, make, evaluate, purpose, user, criteria, functional</p>



<p><b>Book:</b> Oliver Twist Chimney Charlie</p>	<p>axels are used in daily life. <b>FPT:</b> wheels and axels construction kits, fixed / free axels, holding, cutting and joining techniques.</p>				
<p><b>2:1 Big Question:</b> Should we forgive others? <b>Topic:</b> Where the Dragons Dance <b>Theme:</b> Culture/loss and forgiveness <b>Book:</b> The Willow Pattern</p>				<p><b>Preparing Fruit and Vegetables</b> To design, make and evaluate a <b>stir fry</b>, for <b>[user]</b> for/to <b>[purpose]</b>. <b>IEA:</b> examine a range of vegetables – handle, smell and taste. Search origin of vegetables – where do they come from, how do they grow? <b>FPT:</b> food hygiene practices, using simple utensils for food processing (knife, chopping board, grater, peeler). Discuss parts of the vegetables – do we use all of the vegetable, why / why not?</p>	<p>Fruit and vegetable names, names of equipment and utensils Sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard Flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients, planning, investigating tasting, arranging, popular, design, evaluate, criteria, nutrients, pith, salad, sensory evaluation</p>
<p><b>2:2 and 3:1 Big Question:</b> In the future, will wild animals</p>					

<p>only exist in picture books?  <b>Topic:</b> Into the Wild  <b>Theme:</b> Being respectful  <b>Book:</b> The Tiger Who Came to Tea/There's a Rang-Tan in my Bedroom</p>					
<p><b>3:2</b>  <b>Big Question:</b> Do good things come in small packages?  <b>Topic:</b> It's a Bug's Life  <b>Theme:</b> Transition  <b>Book:</b> The King Of Tiny Things</p>			<p><b>Templates and Joining Techniques</b>  To design, make and evaluate a <b>mini-beast soft toy</b>, for [user] for/to [purpose].  <b>IEA:</b> looking at different soft toys– how are they joined together? What materials are used? How are they finished? Draw and label existing products – fabrics, fastening and techniques.  <b>FPT:</b> experimenting with different joining techniques (running stitch including threading own needle), explore different fabrics, looking at</p>		<p>Names of existing products, joining and finishing techniques, tools, fabrics and components  Template, pattern pieces, mark out, join, decorate, finish, applique, embroider, fray, seam, sew  Features, suitable, quality mock-up, design brief, design criteria, make, evaluate, user, purpose, function, design, template</p>

			templates for finished products.		
--	--	--	----------------------------------	--	--

## Banks Lane Infant & Nursery School | Year 2 Design & Technology End Points

Year 2	Design	Make	Evaluate	Technical Knowledge	Cooking and Nutrition
	<ul style="list-style-type: none"> <li>➤ Design purposeful, functional, appealing products for myself and other users based on design criteria.</li> <li>➤ Generate, develop, model and communicate ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Select from and use a range of tools and equipment to perform practical skills (for example, cutting, shaping, joining and finishing.)</li> <li>➤ Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Explore and evaluate a range of existing products.</li> <li>➤ Evaluate my ideas and products against design criteria.</li> <li>➤ Recognise what I have done well and I can suggest what I can do better in the future.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Build structures, exploring how they can be made stronger, stiffer and more stable.</li> <li>➤ Explore and use mechanisms in my products.</li> <li>➤ Select appropriate tools, techniques and materials and explain my choice.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Use the basic principles of a healthy and varied diet to prepare dishes.</li> <li>➤ Understand where food comes from.</li> </ul>

Children working below ARE	Children exceeding ARE

