



**Design and technology
Medium-term Plan (Year 1)**

Equipping Children for a World of Possibilities

<u>Year Group</u> Year 1	<u>Term</u> Autumn 1- Superheros	<u>Unit of Learning</u> Cookery- Smoothie
<u>Prior Learning</u> In Reception Use simple tools and techniques competently and appropriately (40-60) Manipulates materials to achieve a planned effect (40-60) Use simple tools and techniques competently and appropriately (40-60) DT ELG Statements Physical Development- Fine Motor Skills Use a range of small tools, including scissors, paintbrushes and cutlery.	<u>Vocabulary</u> Peel, grate, chop, food, tools, peelers, core, opinions, test tasting, existing, range, variety, fruit, sweet, sour, designing, discussion, design, evaluate, likes, dislike, improve, sharp, jiggered, bridge, techniques, hold, safety,	<u>Resources</u> Range of fruit, ingredients, ingredients for smoothie, peelers, chopping boards, child knives, adults, videos on correct techniques, blender
<u>Assessment (By the end of this unit the children will be able to...)</u> They can use the right tools to peel, grate and chop (food) They can say what they like and don't like about existing products (evaluate)		
<u>Learning Objective</u>	<u>Possible teaching Activities</u>	<u>Learning Outcomes</u>
They can say what they like and don't like about existing products (evaluate)	Children will taste a range of different fruits, food to go into their salad, they will complete a taste opinion sheet on what they liked/disliked. This could be blindfolded in order to allow children to try new foods (if they feel comfortable to do so.) Children look at 5 a day plate and create there own.	Children will have discussed opinions on their likes and dislikes, A completed evaluation sheet.
Design They can create a drawing of their idea and templates for their design. (Design)	Using their design sheet, the children will design their smoothie with their selected ingredients.	Children will create a design of the fruit that will go in the smoothie.
Learning the correct techniques and tools to peel, grate, blend.	Children will learn how to use peel using the correct grips, Chop using the bridge technique Grate using a grater blending using a blender	Children will know how to use the different techniques to peel, grate, chop, blend etc.

<p>They can use the right tools to peel, grate, blend and chop (food)</p>	<p>Children will prepare their ingredients for their smoothie from their design. Assess that children are using the correct techniques and support where necessary Children can eat their smoothie and discuss their opinions</p>	<p>Complete assessment on using tools safely and correctly</p>
<p>Evaluate their design and creation</p>	<p>Children will discuss what they liked about their product, What they disliked? What they would change next time?</p>	<p>Complete their evaluation sheets.</p>

<u>Year Group</u> Year 1	<u>Term</u> Autumn 2- homes and houses	<u>Unit of Learning</u> Construction- pop up christmas cards
<u>Prior Learning</u> In Reception Use simple tools and techniques competently and appropriately (40-60) Manipulates materials to achieve a planned effect (40-60) Use simple tools and techniques competently and appropriately (40-60) DT ELG Statements Physical Development- Fine Motor Skills Use a range of small tools, including scissors, paintbrushes and cutlery.	<u>Vocabulary</u> Join, attach, glue, create, cut, scissors, pop up, motion movement, 3D.	<u>Resources</u> wool, card, split pins, string, paper plates, a range of different scissors to support cutting, PVA glue, tape. Move part toys (in DT box)
<u>Assessment (By the end of this unit the children will be able to...)</u> <i>Key stage 1: Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].</i> <i>When designing and making, pupils should be taught to:</i> Design- 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. Make- 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. Evaluate- explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria Technical knowledge. 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. They can roll, fold, tear and cut paper and cards.(make) They can tell someone about their design ideas. (Design) They can create a drawing of their idea and templates for their design. (Design) They can cut along straight lines, curved lines and shapes marked out by a template. (Make) They can say what they like and don't like about existing products (evaluate)		
<u>Learning Objective</u>	<u>Possible teaching Activities</u>	<u>Learning Outcomes</u>

<p>Look at existing products with moving parts (children could bring in toys with moving parts for children to explore)</p> <p>Compare the different moving parts and talk about the different movements.</p>	<p>Complete an evaluation on some of the products saying what they like and don't like about them to inform them for their own design.</p> <p>Evaluation sheets on 2 or more products based on the joins used in the products A range of different joins in books using 2 pieces of paper to join.</p>	<p>Understanding different joins- fixed/moving. Children to explore different joining materials- Is a staple and fixed or moving join? Which joins are best for moving? Which provides a strong fixed join?</p>
<p>Children research moving cards and label the different parts. Which part of the card (santa in the chimney) needs to move and which parts need to be fixed.</p>	<p>Children create a drawing of their idea and label the fixed or moving joins and how the join is going to be made. Children talk with their talk partner about their ideas or in small groups.</p>	<p>They can create a drawing of their idea and templates for their design. (Design) They can tell someone about their design ideas. (Design)</p>
<p>A complete design of their cards with labels to show the different joins.</p>	<p>They can roll, fold, tear and cut paper and card.(make) They can use tape and glue to create temporary joins, fixed joins and moving joins.(Make)</p>	<p>They can roll, fold, tear and cut paper and card.(make) They can use tape and glue to create temporary joins, fixed joins and moving joins.(Make)</p>
<p>Children make their model following their design.</p>	<p>Through exploring and assembly they can find ways to make their card have one moving part. E.g up and down, spring image, overlapping joints. (Make)</p>	<p>Children make their model following their design. Adapting if needed to make their structures more stable.</p>
<p>A christmas card with a moving part.</p>	<p>Evaluate They can say what they like and don't like about existing products (evaluate) Evaluate a friends model</p>	<p>Complete an evaluation sheet based on their friend's model. Was it stable? Was the structure strong? Did the moving parts move? What do they like about the model? What could be improved?</p>

Year Group 1	Term Spring 1- Paddington around the UK.	Unit of Learning Textiles
About the unit Children are learning about Paddington adventure in London and changes of seasons.		Where the unit fits in Children are learning about paddington the bear and looking at how clothing is made?
Prior Learning In Reception Use simple tools and techniques competently and appropriately (40-60) Manipulates materials to achieve a planned effect (40-60) Use simple tools and techniques competently and appropriately (40-60)	Vocabulary Cut, fold, tear, stick, glue, attach, join, Techniques, rolling, tools, design, evaluate, create, make, ideas, discuss, textiles, buttons, bead, sequins, ribbons ,template, manipulate, materials, plan, achieve, existing, products, opinions	Resources Fabric, sequins, scissors, glue, glitter, buttons, existing superhero costumes and scarf, scarf templates, design sheets, evaluation sheets, split pins, treasure tags.
<p>Assessment (By the end of this unit the children will be able to...)</p> <p><i>Key stage 1 Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].</i></p> <p><i>When designing and making, pupils should be taught to:</i></p> <p>Design- 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.</p> <p>Make- 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.</p> <p>Evaluate- explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria Technical knowledge. 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.</p> <p>They can roll, fold, tear and cut paper and card.(make) They can tell someone about their design ideas. (Design)</p> <p>They can create a drawing of their idea and templates for their design. (Design) They can cut along straight lines, curved lines and shapes marked out by a template. (Make) They decorate textiles using buttons and beads, sequins, braids, ribbons. (make)</p>		

They can say what they like and don't like about existing products (evaluate)		
Learning Objective	Possible teaching Activities	Learning Outcomes
<p>They can tell someone about their design ideas. (Design)</p> <p>They can create a drawing of their idea and templates for their design. (Design)</p> <p>They can say what they like and don't like about existing products (evaluate)</p>	<p>Children will have been introduced to Paddington around the UK topic. They will be looking at Paddington's clothes and relating it to the season winter and coming up with a scarf for him to wear. Show some ideas of some scarfs costumes. Discuss what they like, don't like.</p> <p>Children will then draw their design for a scarf and tell a partner what they have designed</p>	<p>Opinions on what they like from existing products</p> <p>Children will have a scarf design.</p>
<p>They can cut along straight lines, curved lines and shapes marked out by a template. (Make)</p> <p>They can roll, fold, tear and cut paper and card.(make)</p> <p>They decorate textiles using buttons and beads, sequins, braids, ribbons. (make)</p> <p>They can cut along straight lines, curved lines and shapes marked out by a template. (Make)</p>	<p>Children will practise cutting out different shaped lines. They will experiment sticking different types of material on to their template scarf to see what they like and what sticks well.</p>	<p>A range of different cutting techniques and a range of different materials experimented with.</p> <p>Partner discussions to discuss their opinions</p> <p>Children draw a plan of their scarf and the materials and joining methods they are going to use.</p>
<p>They can roll, fold, tear and cut paper and card.(make)</p> <p>They decorate textiles using buttons and beads, sequins, braids, ribbons. (make)</p> <p>They can cut along straight lines, curved lines and shapes marked out by a template. (Make)</p>	<p>Children will make their own scarf- sticking on sequins, jewels etc from their design and experiment.</p>	<p>Children will have a completed scarf using the skills and techniques they have learnt.</p>
<p>They can say what they like and don't like about existing products (evaluate)</p>	<p>Children will evaluate their scarf, did they like or dislike-talk about what they would do next time</p>	<p>Evaluation</p>

<u>Year Group</u> Year 1	<u>Term</u> Spring 2	<u>Unit of Learning</u> Construction
<u>About the unit</u> The children will using their construction project skills by building a model castle with moving parts		<u>Where the unit fits in</u> <u>Theme-</u> Turrets and castes The children will be learning about castles. From this they will be making a model castle with moving parts.
<u>Prior Learning</u> In reception the children will have explored with an arrangement of different materials and equipment by accessing junk modelling. They will also have had adult teaching making puppets and building on from their knowledge of making a house structure.	<u>Vocabulary</u> Mechanisms, movement, fixed, joins, tape, roll, fold, tear, overlap, structure, stable, model, base. Products, evaluate, existing, parts, Castle vocabulary needs to have been taught	<u>Resources</u> Card, paper, string, staplers,
<u>Assessment (By the end of this unit the children will be able to...)</u> They can say what they like and don't like about existing products (evaluate) They can use tape and glue to create temporary joins, fixed joins and moving joins.(Make) They can create a drawing of their idea and templates for their design. (Design) They can tell someone about their design ideas. (Design) Through exploring and assembly they can find ways to make their structures more stable so they are free standing. E.g The use of a base, overlapping joints. (Make) They can independently cut wood/ dowelling using a hacksaw and bench hook.(make)		
<u>Learning Objective</u>	<u>Possible teaching Activities</u>	<u>Learning Outcomes</u>
They can say what they like and don't like about existing products (evaluate)	Look at existing products with moving parts (children could bring in toys with moving parts for children to explore) Compare the different moving parts and talk about the different movements Complete an evaluation on some of the products saying what they like and don't like about them to inform them for their own design.	Evaluation sheets on 2 or more products based on the joins used in the products
Understanding different joins- fixed/moving	. Children to explore different joining materials- Is a staple and fixed or moving join? Which joins are best for moving? Which provide a strong fixed join?	A range of different joins in books using 2 pieces of paper to join.

<p>They can create a drawing of their idea and templates for their design. (Design) They can tell someone about their design ideas. (Design)</p>	<p>Children to research Castles and label the different parts. Which part of the castle needs to move and which parts need to be fixed.</p> <p>Children create a drawing of their idea and label the fixed or moving joints and how the join is going to be made. Children talk with their talk partner about their ideas or in small groups.</p>	<p>A complete design of their castle with labels to show the different joints</p>
<p>They can roll, fold, tear and cut paper and card.(make) They can use tape and glue to create temporary joints, fixed joints and moving joints.(Make) Through exploring and assembly they can find ways to make their structures more stable so they are free standing. E.g The use of a base, overlapping joints. (Make)</p>	<p>Children make their model following their design. Adapting if needed to make their structures more stable.</p>	<p>A stable structure of a castle will be made with fixed and moving parts.</p>
<p>Evaluate They can say what they like and don't like about existing products (evaluate)</p>	<p>Evaluate a friend's model</p>	<p>Complete an evaluation sheet based on their friend's model. Was it stable? Was the structure strong? Did the moving parts move? What do they like about the model? What could be improved?</p>
<p>Parents to be invited into support children with their creations.</p>		

<u>Year Group</u> Year 1	<u>Term</u> Summer 1- Tree and plants	<u>Unit of Learning</u> Cookery- Fruit salad
<u>Prior Learning</u> In Reception Use simple tools and techniques competently and appropriately (40-60) Manipulates materials to achieve a planned effect (40-60) Use simple tools and techniques competently and appropriately (40-60) DT ELG Statements Physical Development- Fine Motor Skills Use a range of small tools, including scissors, paintbrushes and cutlery.	<u>Vocabulary</u> Peel, grate, chop, food, tools, peelers, core, opinions, test tasting, existing, range, variety, fruit, sweet, sour, designing, discussion, design, evaluate, likes, dislike, improve, sharp, jiggered, bridge, techniques, hold, safety,	<u>Resources</u> Range of fruit/ vegetables, ingredients, ingredients for salad, peelers, chopping boards, child knives, adults, videos on correct techniques,
<u>Assessment (By the end of this unit the children will be able to...)</u> They can use the right tools to peel, grate and chop (food) They can say what they like and don't like about existing products (evaluate)		
<u>Learning Objective</u>	<u>Possible teaching Activities</u>	<u>Learning Outcomes</u>
They can say what they like and don't like about existing products (evaluate)	Children will taste a range of different fruits/ vegetables, foods to go into their salad, they will complete a taste opinion sheet on what they liked/disliked. This could be blindfolded in order to allow children to try new foods (if they feel comfortable to do so.) recap to smoothie learning in Autumn term.	Children will have discussed opinions on their likes and dislikes, A completed evaluation sheet.
Design They can create a drawing of their idea and templates for their design. (Design)	Using their design sheet, the children will design their salad with their selected ingredients.	Children will create a design of the fruit/ vegetables that will go in the salad.
Learning the correct techniques and tools to peel, grate	Children will learn how to use peel using the correct grips, Chop using the bridge technique Grate using a grater	Children will know how to use the different techniques to peel, grate, chop etc.

<p>They can use the right tools to peel, grate and chop (food)</p>	<p>Children will prepare their ingredients for their salad from their design. Assess that children are using the correct techniques and support where necessary</p> <p>Children can eat their salad and discuss their opinions</p>	<p>Complete assessment on using tools safely and correctly</p>
<p>Evaluate their design and creation</p>	<p>Children will discuss what they liked about their product, What did they dislike? What would they change next time?</p>	<p>Complete their evaluation sheets.</p>

<u>Year Group</u> Year 1	<u>Term</u> Summer 1- plants and trees	<u>Unit of Learning</u> Construction- Wood
<u>Prior Learning</u> In Reception Use simple tools and techniques competently and appropriately (40-60) Manipulates materials to achieve a planned effect (40-60) Use simple tools and techniques competently and appropriately (40-60) Physical Development- Fine Motor Skills Use a range of small tools, including scissors, paintbrushes and cutlery.	<u>Vocabulary</u> Hacksaw, forwards, backwards, sharp, jagged, sharp, measure, accurate, safely, g clamp	<u>Resources</u> Hacksaw, g clamp, doweling, string,
<u>Assessment (By the end of this unit the children will be able to...)</u> They can independently cut wood/ dowelling using a hacksaw and bench hook (make)		
<u>Learning Objective</u>	<u>Possible teaching Activities</u>	<u>Learning Outcomes</u>
They can tell someone about their design ideas. (Design)	Children will be reading the book Oliver's vegetables or Percy the park keeper. They will be given a challenge that the birds keep either eating the vegetables/ bugs or messing up Percy the Park Keepers' lawn. Can they make some bug hotels using wood.	Children will design their own bug hotel.
To be taught how to safely saw wood using a hacksaw. Forest school session	Children will be shown or to use a hacksaw safely. This includes using a G clamp to hold the wood in position. They will pull the hacksaw backwards only (they don't pull it forwards and backwards like a usual saw) Ensuring their fingers are out of the way. Under close adult supervision children will have a turn using a hacksaw to saw wood.	Children will understand how to use a hacksaw safely and have had a chance to use one under close adult supervision.
They can independently drill holes using a hand drill and bench hook.(make)	Children will use their design to create their own bug hotel using a hacksaw to cut the wood.	Children will independently have sawn the wood to make their bug hotels.

<p>They can independently drill using a handsaw. (make)</p>	<p>Children will use their design to create their own bug hotel using a hand drill to make holes in the wood.</p>	<p>Children will independently have drilled holes to make their bug hotels.</p>
<p>Evaluate They can say what they like and don't like about existing products (evaluate)</p>	<p>Evaluate a friends model</p>	<p>Complete an evaluation sheet based on their friend's model. Was it stable? Was the structure strong? Did the moving parts move? What do they like about the model? What could be improved?</p>