



Design and Technology Progression Overview

EYFS

- Use one-handed tools and equipment, for example, making snips in paper with scissors.
- Explore different materials freely, in order to develop their ideas about how to use them and what to make.
- Develop their own ideas and then decide which materials to use to express them.
- Create closed shapes with continuous lines, and begin to use these shapes to represent objects.
- Use a range of small tools, including scissors, paintbrushes and cutlery.
- Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen or one which is suggested to them.
- Use large-muscle movements to wave flags and streamers, paint and make marks.
- Choose the right resources to carry

- Develop their small motor skills so that they can use a range of tools competently, safely and confidently.
- Use a range of small tools, including scissors, paintbrushes and cutlery.
- Progress towards a more fluent style of moving, with developing control
- Choose the right resources to carry out their own plan.
- Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor.
- Create collaboratively, sharing ideas, resources and skills.



- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
- Share their creations, explaining the process they have used.
- Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park.



out their own plan.

- Progress towards a more fluent style of moving, with developing control
- Explore how things work.



Aim of the unit: (From the National Curriculum) – KS1

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.

Cooking and Nutrition

- Use the basic principles of a healthy and varied diet to prepare dishes
- Understand where food comes from.

One	Construction and Textiles	Cooking and Nutrition	Mechanisms
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Animal Masks / Christmas decorations



- Use pictures and words to convey what they want to design / make.
- Explore ideas by rearranging materials.
- Select pictures to help develop ideas.
- Use mock-ups e.g. recycled material trial models to try out their ideas.
- Select materials from a limited range.
- Explain what they are making.
- Name the tools they are using.
- Start to use technical vocabulary.
- Cut out shapes which have been created by drawing round a template.
- Join materials in a variety of ways.
- Decorate using a variety of techniques.
- Know some ways of making structures stronger.
- Show how to stiffen some materials.
- Know how to make a simple structure more stable.

Fruit Kebabs



- Group familiar food products e.g. fruit and vegetables.
- Cut and chop a range of ingredients.
- Work safely and hygienically.
- Know about the need for a variety of foods in a diet.

Car for 3 bears



Goldilocks and the 3 bears

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- Start to use technical vocabulary.
- Cut out shapes which have been created by drawing round a template.
- Join materials in a variety of ways.
- Decorate using a variety of techniques.
- Know some ways of making structures stronger.
- Show how to stiffen some materials.
- Know how to make a simple structure more stable.
- Attach wheels to a chassis using an axle.
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EVALUATE

- Explore existing products and investigate how they have been made (including teacher-made examples).

- Talk about their design as they develop and identify good and bad points.
- Say what they like and do not like about items they have made and attempt to say why.

Vocabulary • Plan • Prepare • Design • Materials • Ideas • Use • Template • Fast • Slow • Faster • Slower • Up • Down • Turn • Wind up • Draw • Tools • Fix • Glue • Attach • Features • Cloth • Foam • Felt • Paper • Tissue • Newspaper • Cardboard • String • Wool • Scissors • Tape • Cut • Stick • Decorate • Healthy • Unhealthy • Fruit • Vegetables • Clean • Safe • Dirty • Unsafe • Amount • Ingredients • Dietary requirements • Prefer •

Two	<p style="text-align: center;"><u>Construction and Textiles</u> <u>LS Lowry Village /Gingerbread Christmas</u></p> <p style="text-align: center;"><u>Decorations</u></p> <div style="display: flex; justify-content: space-around;">   </div> <ul style="list-style-type: none"> ● Propose more than one idea for their product. ● Use ICT to communicate ideas. ● Use drawings to record ideas as they are developed. ● Add notes to drawings to help explanations. ● Discuss their work as it progresses. ● Select and name the tools needed to work the materials. ● Explain which materials they are using and why. ● Start to use technical vocabulary. ● Cut out shapes which have been created by drawing round a template. ● Join materials in a variety of ways. ● Decorate using a variety of techniques. ● Know some ways of making structures stronger. ● Show how to stiffen some 	<p style="text-align: center;"><u>Cooking and Nutrition</u> <u>Fruit Smoothies</u></p>  <ul style="list-style-type: none"> ● Cut, peel, grate, chop a range of ingredients. ● Work safely and hygienically. ● Know about the Eatwell Plate. ● Understand where food comes from. 	<p style="text-align: center;"><u>Mechanisms</u> <u>Moving on a 2D plane</u></p>  <ul style="list-style-type: none"> ● Propose more than one idea for their product. ● Use ICT to communicate ideas. ● Use drawings to record ideas as they are developed. ● Add notes to drawings to help explanations. ● Discuss their work as it progresses. ● Select and name the tools needed to work the materials. ● Explain which materials they are using and why. ● Start to use technical vocabulary. ● Cut out shapes which have been created by drawing round a template. ● Join materials in a variety of ways. ● Decorate using a variety of techniques. ● Know some ways of making structures stronger. ● Show how to stiffen some materials. ● Know how to make a simple structure more stable.
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	<p>materials.</p> <ul style="list-style-type: none"> • Know how to make a simple structure more stable. • Attach wheels to a chassis using an axle. • Know some different ways of making things move in a 2-D plane. 		<ul style="list-style-type: none"> • Know some different ways of making things move in a 2-D plane.
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	<p>EVALUATE</p> <ul style="list-style-type: none"> • Decide how existing products do / do not achieve their purpose. • Discuss how closely their finished product meets their own design criteria. 		
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Vocabulary	<ul style="list-style-type: none"> • Plan • Prepare • Design • Materials • Ideas • Use • Model • Development • Market Research • Survey • Template • Fast • Slow • Faster • Slower • Up • Down • Turn • Wind up • Draw • Sketch • Tools • Fix • Attach • Features • Brick • Wood • Stone • Cloth • Metal • Foam • Felt • Paper • Tissue • Newspaper • Cardboard • String • Wool • Clay • Scissors • Glue • Tape • Cut • Stick • Decorate • Healthy • Unhealthy • Source • Fruit • Vegetables • Clean • Safe • Dirty • Unsafe • Amount • Ingredients • Recipe • Weight • Nutrients • Vegetarian • Dietary requirements • Change • Improve • Prefer • Useful • Unsuccessful • Future • Progress • modify 		
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Aim of the unit: (From the National Curriculum) – KS2

Design

- Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
- Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make

- Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

Evaluate

- Investigate and analyse a range of existing products
- Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- Understand how key events and individuals in design and technology have helped shape the world

Technical knowledge

- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
- Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]

- Apply their understanding of computing to program, monitor and control their products.

Cooking and Nutrition

- Understand and apply the principles of a healthy and varied diet
- Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
- Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Three

Constructions and Textiles **Round houses/Christmas Decorations**



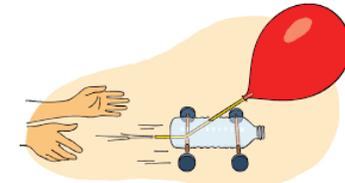
- Develop more than one design or adaptation of an initial design.
- Plan a sequence of actions to make a product.
- Think ahead about the order of their work and decide upon tools and materials.
- Propose realistic suggestions as to how they can achieve their design ideas.
- Select from a range of tools for cutting, shaping, joining and finishing.
- Use tools with accuracy.
- Select from materials according to their functional properties.
- Use appropriate finishing techniques.
- Use an increasingly appropriate technical vocabulary for tools materials and their properties.

Cooking and Nutrition **Thai Green Curry**

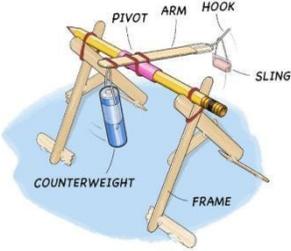


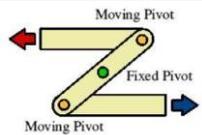
- Follow instructions / recipes.
- Join and combine a range of ingredients.
- Begin to understand the food groups on the Eatwell Plate.

Mechanisms **Moving Monsters**



- Develop more than one design or adaptation of an initial design.
- Plan a sequence of actions to make a product.
- Think ahead about the order of their work and decide upon tools and materials.
- Propose realistic suggestions as to how they can achieve their design ideas.
- Select from a range of tools for cutting, shaping, joining and finishing.
- Use tools with accuracy.
- Select from materials according to their functional properties.
- Use appropriate finishing techniques.
- Use an increasingly appropriate technical vocabulary for tools materials and their properties.
- Understand seam allowance.
- Prototype a product.
- Sew on buttons and make loops.
- Strengthen frames with diagonal struts.
- Measure and mark square section, strip and dowel accurately to 1cm.

	<ul style="list-style-type: none"> ● Prototype a product. ● Strengthen frames with diagonal struts. ● Measure and mark square section, strip and dowel accurately to 1cm. 		<ul style="list-style-type: none"> ● Use linkages to make movement larger or more varied.
	<p>EVALUATE</p> <ul style="list-style-type: none"> ● Investigate similar products to the one to be made to give starting points for a design. ● Research needs of user. ● Decide which design idea to develop. ● Consider and explain how the finished product could be improved. ● Discuss how well the finished product meets the user's design criteria. ● Investigate key events and individuals in design and technology. 		
<p>Vocabulary</p>	<p>Plan • Organise • Initial ideas • Prototype Criteria • Diagrams • Labels • Annotate • Brief • Product • Purpose • Application • Constraints • Materials • Mould • Form • Shape • Adhesive • Presentation • Machine made • Dimensions • Durable • Healthy • Unhealthy • Balanced • Vitamins • Nutrition • Healthy eating • Hygiene • Diet • Cross contamination • Storage • Presentation • Taste • Flavour • Assess • Edit • Improve • Alter • Develop • Test • Analyse • Effective • Fit for purpose • Design criteria • Alternatives • Models • Quality • Function • Functionality</p>		
<p>Four</p>	<p>Construction and textiles / Christmas Decorations</p>  <ul style="list-style-type: none"> ● Record the plan by drawing using annotated sketches. ● Use prototypes to develop and share ideas. ● Consider aesthetic qualities of materials chosen. ● Prepare pattern pieces as templates for their design. 	<p>Cooking and Nutrition <u>Chicken Fajitas</u></p>  <ul style="list-style-type: none"> ● Make healthy eating choices – use the Eatwell plate. ● Understand seasonality. ● Know where and how ingredients are reared and caught. ● Prepare and cook using different cooking techniques 	<p>Mechanisms <u>Trebuchet</u></p>  <ul style="list-style-type: none"> ● Record the plan by drawing using annotated sketches. ● Use prototypes to develop and share ideas. ● Consider aesthetic qualities of materials chosen. ● Prepare pattern pieces as templates for their design.

	<ul style="list-style-type: none"> ● Select from techniques for different parts of the process. ● Use an increasingly appropriate technical vocabulary for tools materials and their properties. ● Understand seam allowance. ● Prototype a product. ● Sew on buttons and make loops. ● 		<ul style="list-style-type: none"> ● Select from techniques for different parts of the process. ● Use an increasingly appropriate technical vocabulary for tools materials and their properties. ● Prototype a product. ● Strengthen frames with diagonal struts. ● Measure and mark square section, strip and dowel accurately to 1cm. ● Use linkages to make movement larger or more varied. ● Use CAD where appropriate. ● Measure and mark square section, strip and dowel accurately to 1cm. ● Strengthen frames with diagonal struts. ● Use ICT to control products. ● Use linkages to make movement larger or more varied.
	<p>Evaluate</p> <ul style="list-style-type: none"> ● Draw / sketch existing products in order to analyse and understand how products are made. ● Identify the strengths and weaknesses of their design ideas in relation to purpose / user. ● Consider and explain how the finished product could be improved. ● Investigate key events and individuals in design and technology. 		
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<p>Five</p>	<p>Construction and Textiles <u>Boats / Christmas Decorations</u></p> 	<p>Cooking and Nutrition <u>Chocolate Truffles</u></p>	<p>Mechanisms <u>Pulleys and Levers</u></p> 

- Record ideas using annotated diagrams.
- Use models, kits and drawings to help formulate design ideas.
- Sketch and model alternative ideas.
- Decide which design idea to develop.
- Develop one idea in depth.
- Select from and use a wide range of tools.
- Cut accurately and safely to a marked line.
- Select from and use a wide range of materials.
- Use the correct vocabulary appropriate to the project.
- Join materials using appropriate methods.
- Create 3-D textile products using pattern pieces.
- Understand pattern layout with textiles.
- Cut strip wood, dowel, square section wood accurately to 1mm.
- Build frameworks to support mechanisms.
- Stiffen and reinforce complex structures.
- Use mechanical systems such as cams, pulleys and gears.
- Use electrical systems such as motors and switches.
- Program, monitor and control using ICT.



- Join and combine a widening range of ingredients.
- Select and prepare foods for a particular purpose.
- Know where and how ingredients are grown and processed.

- Record ideas using annotated diagrams.
- Use models, kits and drawings to help formulate design ideas.
- Sketch and model alternative ideas.
- Decide which design idea to develop.
- Develop one idea in depth.
- Select from and use a wide range of tools.
- Cut accurately and safely to a marked line.
- Select from and use a wide range of materials.
- Use the correct vocabulary appropriate to the project.
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- Use mechanical systems such as cams, pulleys and gears.
- Use electrical systems such as motors and switches.
- Program, monitor and control using ICT.

	<p>EVALUATE</p> <ul style="list-style-type: none"> • Research and evaluate existing products. • Consider user and purpose. • Consider and explain how the finished product could be improved related to design criteria. • Investigate key events and individuals in design and technology. 		
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<p>Six</p>	<p style="text-align: center;">Mechanisms <u>Christmas Decorations</u></p>  <ul style="list-style-type: none"> • Plan the sequence of work. • Devise step by step plans which can be read / followed by someone else. • Use exploded diagrams and cross-sectional diagrams to communicate ideas. • Make prototypes. • Use researched information to inform decisions. • Produce detailed lists of components / materials and tools. • Refine their product – review and rework / improve • Use the correct vocabulary appropriate to the project. 	<p style="text-align: center;">Cooking and Nutrition <u>Tapas</u></p>  <ul style="list-style-type: none"> • Understand and apply the principles of a healthy and varied diet. • Choose ingredients to support healthy eating choices when designing their food products. • Prepare and cook a variety of mostly savoury dishes using a range of cooking techniques. 	<p style="text-align: center;">Textiles <u>Legacy Bears</u></p>  <ul style="list-style-type: none"> • Plan the sequence of work. • Devise step by step plans which can be read / followed by someone else. • Use exploded diagrams and cross-sectional diagrams to communicate ideas. • Make prototypes. • Use researched information to inform decisions. • Produce detailed lists of ingredients / components / materials and tools. • Refine their product – review and rework / improve • Use the correct vocabulary appropriate to the project.

	<ul style="list-style-type: none"> ● Join materials using appropriate methods. ● Create 3-D textile products using pattern pieces. ● Understand pattern layout with textiles. ● Cut strip wood, dowel, square section wood accurately to 1mm. ● Build frameworks to support mechanisms. ● Stiffen and reinforce complex structures. ● Use mechanical systems such as cams, pulleys and gears. ● Use electrical systems such as motors and switches. ● Program, monitor and control using ICT. 		<ul style="list-style-type: none"> ● Join materials using appropriate methods. ● Create 3-D textile products using pattern pieces. ● Understand pattern layout with textiles. ● Cut strip wood, dowel, square section wood accurately to 1mm. ● Build frameworks to support mechanisms. ● Stiffen and reinforce complex structures. ● Use mechanical systems such as cams, pulleys and gears. ● Use electrical systems such as motors and switches. ● Program, monitor and control using ICT.
	<p>EVALUATE</p> <ul style="list-style-type: none"> ● Identify the strengths and weaknesses of their design ideas. ● Report using correct technical vocabulary. ● Discuss how well the finished product meets the design criteria having tested on/discussed outcomes with the user. ● Understand how key people have influenced design in a variety of contexts. ● Investigate key events and individuals in design and technology. 		
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