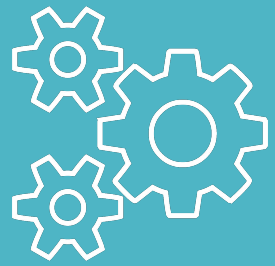
# Design and technology

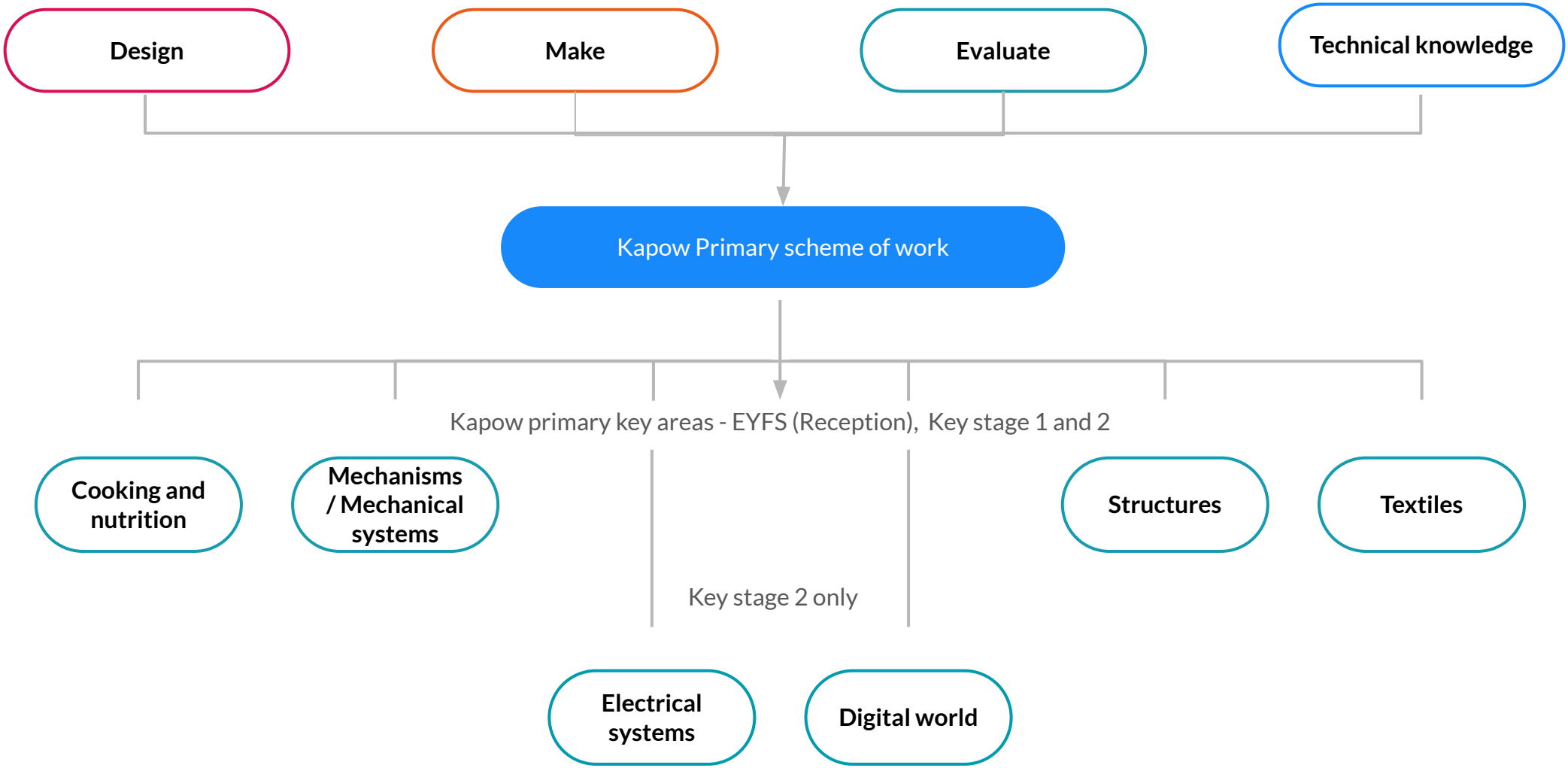


Kapow Primary™

## National curriculum coverage

# Introduction

Kapow Primary offers full coverage of the KS1 and KS2 Design and technology curriculum and we have categorised our content into six areas, with four strands that run throughout:



# Overview

| | Cooking and nutrition | Mechanisms | Structures | Textiles | Electrical systems | Digital world |
|---|---|---|---|---|---|---|
| | Aside from Electrical systems and Digital world, which are taught in KS2 only, each of these acts as the focus for a unit within each year group | | | | | |
| **EYFS (Reception)** | Soup | | Boats<br>Junk modelling | Bookmarks | | |
| **Year 1** | Smoothies | Option 1: Matching slider game<br>Option 2: Moving storybook<br>Wheels and axles | Option 1: Stable structures<br>Option 2: Constructing a windmill | Puppets | | |
| **Year 2** | Balanced diet | Making a moving monster<br>Fairground wheel | Baby bear's chair | Pouches | | |
| **Year 3** | Eating seasonally | Pneumatic toys | Castles | Cross stitch and appliqué | Electric poster | Wearable technology |
| **Year 4** | Adapting a recipe | Option 1: Mechanical cars<br>Option 2: Making a slingshot car | Option 1: Helmets<br>Option 2: Pavilions | Fastenings | Torches | Mindful moments timer |
| **Year 5** | Developing a recipe | Option 1: Gears and pulleys<br>Option 2: Pop-up book | Bridges | Stuffed toys | Option 1: Wobble bots<br>Option 2: Doodlers | Monitoring devices |
| **Year 6** | Come dine with me | Automata toys | Playgrounds | Option 1: Bags<br>Option 2: Waistcoats | Steady hand game | Navigating the world |
| | The four strands (below) of the Design and technology curriculum run through each unit; with Cooking and nutrition as the focus of one Food unit per year | | | | | |

D Design | M Make | E Evaluate | TK Technical knowledge

# Early years outcomes in Kapow Primary's units

| Early Years Foundation Stage (Reception)<br><br>Kapow Primary's units | Early years outcomes: Prime Areas<br><br>**Development Matters 2021 statements**<br>Early Learning Goals | Early years outcomes: Specific Areas<br><br>**Development Matters 2021 statements**<br>Early Learning Goals | Characteristics of effective learning |
|---|---|---|---|
| Structures: Junk modelling | **Physical development**<br><br>-Develop small motor skills so that they can use a range of tools competently, safely and confidently.<br>-ELG: Fine Motor Skills> Use a range of small tools, including scissors, paint brushes and cutlery. | **Expressive Arts and Design**<br><br>-Explore, use and refine a variety of artistic effects to express ideas and feelings.<br>-Return to and build on their previous learning, refining ideas and developing their ability to represent them.<br>-Create collaboratively, sharing ideas, resources and skills.<br>-ELG: Creating with materials> Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.<br>-ELG: Creating with materials> Share their creations, explaining the process they have used. | ✓ Playing and exploring<br>✓ Active learning<br>✓ Creating and thinking critically |
| Food: Soup | **Communication and language**<br><br>-Learn new vocabulary.<br>-Use new vocabulary throughout the day.<br>-ELG: Speaking> Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary.<br><br>**Personal, social and emotional development**<br><br>-Know and talk about the different factors that support their overall health and wellbeing: healthy eating.<br>-ELG: Managing self> Manage their own basic hygiene and personal needs, including… understanding the importance of healthy food choices.<br><br>**Physical development**<br><br>-Develop small motor skills so that they can use a range of tools competently, safely and confidently.<br>-ELG: Use a range of small tools, including scissors, paint brushes and cutlery. | **Understanding the world**<br><br>-Explore the natural world around them.<br>-ELG: The Natural World>Explore the natural world around them, making observations and drawing pictures of animals and plants.<br><br>**Expressive Arts and Design**<br><br>-Explore, use and refine a variety of artistic effects to express ideas and feelings.<br>-ELG: Creating with materials> Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. | ✓ Playing and exploring<br>✓ Active learning |

# Early years outcomes in Kapow Primary's units

| Early Years Foundation Stage (Reception)<br><br>Kapow Primary's units | Early years outcomes: Prime Areas<br><br>**Development Matters 2021 statements**<br>Early Learning Goals | Early years outcomes: Specific Areas<br><br>**Development Matters 2021 statements**<br>Early Learning Goals | Characteristics of effective learning |
|---|---|---|---|
| Textiles: Bookmarks | **Physical development**<br><br>-Develop small motor skills so that they can use a range of tools competently, safely and confidently.<br>-ELG: Fine Motor Skills> Use a range of small tools, including scissors, paint brushes and cutlery. | **Expressive Arts and Design**<br><br>-Explore, use and refine a variety of artistic effects to express ideas and feelings.<br>-Return to and build on their previous learning, refining ideas and developing their ability to represent them.<br>-ELG: Creating with materials> Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.<br>-ELG: Creating with materials> Share their creations, explaining the process they have used. | ✓ Playing and exploring<br>✓ Active learning<br>✓ Creating and thinking critically |
| Structures: Boats | **Communication and language**<br><br>-Articulate their ideas and thoughts in well-formed sentences.<br>-Connect one idea or action to another using a range of connectives.<br>-Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen.<br><br>-ELG: Speaking> Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary.<br>-ELG: Speaking> Offer explanations for why things might happen. | **Understanding the world**<br>-Explore the natural world around them.<br>-ELG: The Natural World>Explore the natural world around them, making observations and drawing pictures of animals and plants.<br><br>**Expressive Arts and Design**<br><br>-Explore, use and refine a variety of artistic effects to express ideas and feelings.<br>-ELG: Creating with materials> Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.<br>-ELG: Creating with materials> Share their creations, explaining the process they have used. | ✓ Playing and exploring<br>✓ Active learning<br>✓ Creating and thinking critically |

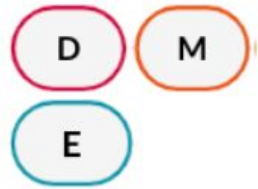
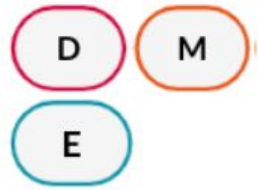
| Key Stage 1 - National curriculum Design and technology content | Kapow Primary's Design and technology strands | Kapow Primary topics<br>Key stage 1 - **Year 1** | | | | |
|---|---|---|---|---|---|---|
| | | *Option 1: Matching slider game<br>*Option 2: Moving story books | *Option 1: Stable structures<br>*Option 2: Constructing a windmill | *Puppets | *Option 1: *New* Wheels and axles<br>*Option 2: Wheels and axles | *Smoothies |
| Design purposeful, functional, appealing products for themselves and other users based on design criteria. | **Design** | ✔ | ✔ | ✔ | ✔ | ✔ |
| Generate, develop, model and communicate their ideas through talking, drawing, templates, mock- ups and, where appropriate, information and communication technology. | **Design** | ✔ | ✔ | ✔ | ✔ | ✔ |
| Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. | **Make** | ✔ | ✔ | ✔ | ✔ | ✔ |
| Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. | **Make** | ✔ | ✔ | ✔ | ✔ | ✔ |
| Explore and evaluate a range of existing products. | **Evaluate** | ✔ | ✔ | | ✔ | |
| Evaluate their ideas and products against design criteria.<br>***Units that are included in the condensed curriculum** | **Evaluate** | ✔ | ✔ | ✔ | ✔ | ✔ |

| Key Stage 1 - National curriculum Design and technology content | Kapow Primary's Design and technology strands | Kapow Primary topics Key stage 1 - **Year 1** | | | | |
|---|---|---|---|---|---|---|
| | | *Option 1: Matching slider game *Option 2: Moving story books | *Option 1: Stable structures *Option 2: Constructing a windmill | *Puppets | *Option 1: *New* Wheels and axles *Option 2: Wheels and axles | *Smoothies |
| Build structures, exploring how they can be made stronger, stiffer and more stable. | Technical knowledge | | ✔ | | | |
| Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. | Technical knowledge | ✔ | | | ✔ | |
| Use basic principles of a healthy and varied diet to prepare dishes. | D M E | | | | | ✔ |
| Understand where food comes from. | D M E | | | | | ✔ |

*Units that are included in the condensed curriculum

| Key Stage 1 - National curriculum Design and technology content | Kapow Primary's Design and technology strands | Kapow Primary topics<br>Key stage 1 - Year 2 | | | | |
|---|---|---|---|---|---|---|
| | | *Moving monsters | *Baby bear's chair | *Pouches | *Fairground wheel | *Balanced diet |
| Design purposeful, functional, appealing products for themselves and other users based on design criteria. | Design | ✔ | ✔ | ✔ | ✔ | ✔ |
| Generate, develop, model and communicate their ideas through talking, drawing, templates, mock- ups and, where appropriate, information and communication technology. | Design | ✔ | ✔ | ✔ | ✔ | ✔ |
| Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. | Make | ✔ | ✔ | ✔ | ✔ | ✔ |
| Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. | Make | ✔ | ✔ | ✔ | ✔ | ✔ |
| Explore and evaluate a range of existing products. | Evaluate | ✔ | | ✔ | ✔ | ✔ |
| Evaluate their ideas and products against design criteria. | Evaluate | ✔ | ✔ | ✔ | ✔ | ✔ |

*Units that are included in the condensed curriculum

| Key Stage 1 - National curriculum Design and technology content | Kapow Primary's Design and technology strands | Kapow Primary topics<br>Key stage 1 - Year 2 | | | | |
|---|---|---|---|---|---|---|
| | | *Moving monsters | *Baby bear's chair | *Pouches | *Fairground wheel | *Balanced diet |
| Build structures, exploring how they can be made stronger, stiffer and more stable. | Technical knowledge | | ✔ | | ✔ | |
| Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. | Technical knowledge | ✔ | | | ✔ | |
| Use basic principles of a healthy and varied diet to prepare dishes. |  | | | | | ✔ |
| Understand where food comes from. |  | | | | | ✔ |

*Units that are included in the condensed curriculum

| Key Stage 2 - National curriculum Design and technology content | Kapow Primary's Design and technology strands | Kapow Primary topics Lower key stage 2 - Year 3 | | | | | |
|---|---|---|---|---|---|---|---|
| | | *Eating seasonally | *Castles | *Cross stitch and appliqué | *Option 1: *New* Pneumatic toys *Option 2: Pneumatic toys | Electric poster | *Wearable technology |
| 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. | Design | | ✔ | ✔ | ✔ | ✔ | ✔ |
| Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design. | Design | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |
| Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. | Make | ✔ | ✔ | ✔ | ✔ | ✔ | |
| Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. | Make | ✔ | ✔ | ✔ | ✔ | ✔ | |
| Investigate and analyse a range of existing products. | Evaluate | | ✔ | | ✔ | | ✔ |
| Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. | Evaluate | | ✔ | ✔ | ✔ | ✔ | ✔ |

*Units that are included in the condensed curriculum

| Key Stage 2 - National curriculum Design and technology content | Kapow Primary's Design and technology strands | Kapow Primary topics Lower key stage 2 - Year 3 | | | | | |
|---|---|---|---|---|---|---|---|
| | | *Eating seasonally | *Castles | *Cross stitch and appliqué | *Option 1: *New* Pneumatic toys *Option 2: Pneumatic toys | Electric poster | *Wearable technology |
| Understand how key events and individuals in design and technology have helped shape the world. | Evaluate | | | | ✔ | | ✔ |
| Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. | Technical knowledge | | ✔ | | | | |
| Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]. | Technical knowledge | | | | ✔ | | |
| Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]. | Technical knowledge | | | | | ✔ | |
| Apply their understanding of computing to program, monitor and control their products. | Technical knowledge | | | | | | ✔ |
| Understand and apply principles of a healthy and varied diet. | D M E | ✔ | | | | | |
| Prepare and cook variety of predominantly savoury dishes using a range of cooking techniques. | D M E | ✔ | | | | | |
| Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. | D M E | ✔ | | *Units that are included in the condensed curriculum | | | |

| Key Stage 2 - National curriculum Design and technology content | Kapow Primary's Design and technology strands | Kapow Primary topics<br>Lower key stage 2 - **Year 4** | | | | | |
|---|---|---|---|---|---|---|---|
| | | *Option 1: Helmets<br>*Option 2: Pavilions | *Adapting a recipe | *Fastenings | *Option 1: Mechanical cars<br>*Option 2: Making a slingshot car | *Torches | Mindful moments timer |
| 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. | **Design** | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |
| Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. | **Design** | ✔ | ✔ | ✔ | ✔ | ✔ | |
| Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. | **Make** | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |
| Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. | **Make** | ✔ | ✔ | ✔ | ✔ | ✔ | |
| Investigate and analyse a range of existing products. | **Evaluate** | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |
| Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. | **Evaluate** | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |

*Units that are included in the condensed curriculum

| Key Stage 2 - National curriculum Design and technology content | Kapow Primary's Design and technology strands | Kapow Primary topics<br>Lower key stage 2 - **Year 4** | | | | | |
|---|---|---|---|---|---|---|---|
| | | *Option 1: Helmets<br>*Option 2: Pavilions | *Adapting a recipe | *Fastenings | *Option 1: Mechanical cars<br>*Option 2: Making a slingshot car | *Torches | Mindful moments timer |
| Understand how key events and individuals in design and technology have helped shape the world. | Evaluate | | | | ✔ | ✔ | |
| Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. | Technical knowledge | ✔ | | | | | |
| Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]. | Technical knowledge | | | | ✔ | | |
| Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]. | Technical knowledge | | | | | ✔ | |
| Apply their understanding of computing to program, monitor and control their products. | Technical knowledge | | | | | | ✔ |
| Understand and apply principles of a healthy and varied diet. | D M E | | | | | | |
| Prepare and cook variety of predominantly savoury dishes using a range of cooking techniques. | D M E | | ✔ | | | | |
| Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. | D M E | | | | | | |

*Units that are included in the condensed curriculum

| Key Stage 2 - National curriculum Design and technology content | Kapow Primary's Design and technology strands | Kapow Primary topics<br>Upper key stage 2 - **Year 5** | | | | | |
|---|---|---|---|---|---|---|---|
| | | *Developing a recipe | *Option 1: Gears and pulleys<br>*Option 2: Pop-up books | Stuffed toys | *Option 1: Wobble bots<br>*Option 2: Doodlers | *Bridges | *Monitoring devices |
| 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. | Design | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |
| Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design. | Design | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |
| Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. | Make | ✔ | ✔ | ✔ | ✔ | ✔ | |
| 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. | Make | ✔ | ✔ | ✔ | ✔ | ✔ | |
| Investigate and analyse a range of existing products. | Evaluate | ✔ | ✔ | ✔ | ✔ | ✔ | |
| Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. | Evaluate | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |

*Units that are included in the condensed curriculum

| Key Stage 2 - National curriculum Design and technology content | Kapow Primary's Design and technology strands | Kapow Primary topics Upper key stage 2 - Year 5 | | | | | |
|---|---|---|---|---|---|---|---|
| | | *Developing a recipe | *Option 1: Gears and pulleys<br>*Option 2: Pop-up books | Stuffed toys | *Option 1: Wobble bots<br>*Option 2: Doodlers | *Bridges | *Monitoring devices |
| Understand how key events and individuals in design and technology have helped shape the world. | Evaluate | ✔ | | | | | ✔ |
| Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. | Technical knowledge | | | | ✔ | ✔ | ✔ |
| Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]. | Technical knowledge | | ✔ | | | | |
| Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]. | Technical knowledge | | | | ✔ | | |
| Apply their understanding of computing to program, monitor and control their products. | Technical knowledge | | | | | | ✔ |
| Understand and apply principles of a healthy and varied diet. | D M E | ✔ | | | | | |
| Prepare and cook variety of predominantly savoury dishes using a range of cooking techniques. | D M E | ✔ | | | | | |
| Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. | D M E | ✔ | | | | | |

*Units that are included in the condensed curriculum

| Key Stage 2 - National curriculum Design and technology content | Kapow Primary's Design and technology strands | Kapow Primary topics<br>Upper key stage 2 - **Year 6** | | | | | |
|---|---|---|---|---|---|---|---|
| | | *Come dine with me | *Automata toys | *Steady hand game | *Playgrounds | *Navigating the world | Option 1: Bags<br>Option 2: Waistcoats |
| 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. | Design | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |
| Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design. | Design | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |
| Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. | Make | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |
| 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. | Make | ✔ | | ✔ | ✔ | | ✔ |
| Investigate and analyse a range of existing products. | Evaluate | | ✔ | ✔ | ✔ | | ✔ |
| Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. | Evaluate | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |

*Units that are included in the condensed curriculum

| Key Stage 2 - National curriculum Design and technology content | Kapow Primary's Design and technology strands | Kapow Primary topics<br>Upper key stage 2 - **Year 6** | | | | | |
|---|---|---|---|---|---|---|---|
| | | *Come dine with me | *Automata toys | *Steady hand game | *Playgrounds | *Navigating the world | Option 1: Bags<br>Option 2: Waistcoats |
| Understand how key events and individuals in design and technology have helped shape the world. | **Evaluate** | | ✔ | ✔ | | | ✔ |
| Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. | **Technical knowledge** | | | | ✔ | | |
| Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]. | **Technical knowledge** | | ✔ | | | | |
| Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]. | **Technical knowledge** | | | ✔ | | | |
| Apply their understanding of computing to program, monitor and control their products. | **Technical knowledge** | | | | | ✔ | |
| Understand and apply principles of a healthy and varied diet. | D M E | ✔ | | | | | |
| Prepare and cook variety of predominantly savoury dishes using a range of cooking techniques. | D M E | ✔ | | | | | |
| Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. | D M E | ✔ | | | | | |

*Units that are included in the condensed curriculum

# Cross-curricular links - Year 1

| National curriculum subjects | Kapow Primary topics | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | *Option 1: Matching slider game | *Option 2: Making a moving story book | Option 1: Stable structures | *Option 2: Constructing a windmill | *Puppets | *Option 1: *New* Wheels and axles | *Option 2: Wheels and axles | *Smoothies |
| **English** | | **Reading -** appreciating rhymes such as Humpty Dumpty | | | **Reading -** Listening to and answering questions about the main character's appearance in Little Red Riding Hood (or another story of your choice) | | | |
| **Maths** | **Geometry** - Pupils use directional language to describe the movement of products with mechanisms. | | | **Geometry -** Pupils use their knowledge of shapes to identify circles and find the centre to help them construct a windmill structure. | | **Geometry - properties of shapes** - exploring the properties of shapes that make them appropriate for a wheel. Cutting out different shapes. | Identifying lengths on their design, considering how wheels work | |
| **Science** | **Everyday materials** - Pupils consider the best material to make their product based on its properties.<br><br>**Working scientifically** - Performing simple tests and using observations to decide the advantages and disadvantages of a particular method. | | **Everyday materials** - Pupils use packaging made of different materials and cardboard to make a structure.<br><br>**Working scientifically** - Performing simple tests and using observations related to stability. | | | **Everyday materials** - exploring the properties of materials they could use to make a pull-along toy. | | **Working scientifically -** classifying fruit and vegetables<br>**Animals, including humans -** learning about the importance of fruit and vegetables in the diet and food hygiene |

# Cross-curricular links - Year 1

| National curriculum subjects | | Kapow Primary topics | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | *Option 1: Matching slider game | *Option 2: Making a moving story book | Option 1: Stable structures | *Option 2: Constructing a windmill | *Puppets | *Option 1: *New* Wheels and axles | *Option 2: Wheels and axles | *Smoothies |
| **Art and design** | Pupils draw pictures to match the words on their game. | Drawing the background of their design along with the moving parts | Sketching the design and adding decoration to the product. | | | | | |
| **Computing** | | | | | | | Digitally painting a flag for their car (extension activity) | |
| **Geography** | | | | Learning about how windmills are used today to generate electricity (wind turbines) | | | | |
| **Physical education** | | | Developing balance and coordination by trying out different balance poses. | | | | | |

# Cross-curricular links - Year 2

| National curriculum subjects | Kapow Primary topics | | | | |
|---|---|---|---|---|---|
| | *Fairground wheel | *Balanced diet | *Making a moving monster | *Baby bear's chair | *Pouches |
| **English** | | **Reading** - reading a letter and summarising the key points | | **Reading** - discussing the events from 'Goldilocks and the three bears' | |
| **Maths** | Talking about 3d shapes and naming them correctly | | Recording a tally survey | Creating 3D shapes from playdough, Recording totals on a tally chart | |
| **Science** | Discussing the properties of materials when choosing materials for their fairground wheel | Discussing the senses that humans have, having an awareness of food hygiene | | Interpreting the results of the tip-test | |
| **Art and design** | | | Sketching design ideas | | Decorating the pouch using a range of materials |
| **Computing** | Practising drag and drop skills by creating an inspiration board (extension activity) | | | | |
| **Geography** | | | | Identifying natural and man-made structures | |

# Cross-curricular links - Year 3

| National curriculum subjects | Kapow Primary topics | | | | | | |
|---|---|---|---|---|---|---|---|
| | *Cross-stitch and appliqué Cushions or Egyptian collars | Electric poster | *Option 1: *New* Pneumatic toys | *Option 2: Pneumatic toys | *Wearable technology | *Eating seasonally | *Castles |
| **English** | | | | | **Reading -** considering language on sales displays and how it persuades us to buy the product | **Reading -** following the instructions in a recipe | |
| **Maths** | Choosing a 2D shape for their cushion, using knowledge of length to leave correct space for stuffing, seam and running stitch length | | Drawing and manipulating 2D shapes, working with nets of 3D shapes (extension activity). | | Drawing and manipulating 2D shapes, working with nets of 3D shapes (extension activity) | | Identifying and naming 2D and 3D shapes in castle structures, drawing 2D shapes, constructing nets to make 3D shapes |
| **Science** | | **Electricity (Y4) -** building a simple circuit and identifying components of a circuit | **Forces and magnets -** considering how pushes and pulls cause air movement in a pneumatic mechanism. | | | | |

# Cross-curricular links - Year 3 continued...

| National curriculum subjects | Kapow Primary topics | | | | | | |
|---|---|---|---|---|---|---|---|
| | *Cross-stitch and appliqué Cushions or Egyptian collars | Electric poster | *Option 1: *New* Pneumatic toys | *Option 2: Pneumatic toys | *Wearable technology | *Eating seasonally | *Castles |
| **Art and design** | Designing a theme for their applique shapes (maybe around another topic) | | Learning about designers in history; exploring different diagram types and understanding their uses; using drawings to communicate ideas; constructing an aesthetic toy and decorating with embellishments. | Decorating their pneumatic toys with embellishments | | | |
| **Computing** | | | | | Learning about the history of Computers and how they have developed over time into smart wearables today, writing a programme to enable an LED to flash on a button press, using CAD software to design | | Using powerpoint to create their own net (extension activity) |
| **Geography** | | | | Discussing how electricity can be made using wind and sea power | | Knowing what climate is and that it affects food growth, reading information from a map of the world, knowing the environmental impact of importing food | |
| **History** | Learning about Egyptian collars (If you choose the Egyptian collars theme for this unit) | Creating posters that give information about Ancient Rome | | | Learning about the Digital revolution and the history of computers | | Learning about the features of castles and their purpose |
| **RSE/PSHE** | | | | | | Considering food hygiene, knowing that fruit and vegetables give us nutritional benefits | |

# Cross-curricular links - Year 4

| National curriculum subjects | Kapow Primary topics | | | | | | |
|---|---|---|---|---|---|---|---|
| | *Torches | *Option 1: Mechanical cars<br>*Option 2: Making a slingshot car | Mindful moments timer | *Adapting a recipe | *Option 1: Helmets | *Option 2: Pavilions | *Fastenings |
| **English** | | | | **Spoken language -** giving a brief pitch for their biscuit recipe | **Spoken language**<br>Listen and respond appropriately to adults and their peers.<br>Ask relevant questions to extend their understanding and knowledge.<br>Articulate and justify answers, arguments and opinions.<br>Maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments.<br>Listen and respond appropriately to adults and their peers. | | |
| **Maths** | | Using nets to create 3D shapes, measuring accurately | Creating a 3D structure using a net | Completing a budget, considering profit margins, using nets to create 3D packages | | Building 3D shapes to test the strength of different structures | |
| **Science** | **Electricity -** Identifying electrical products, conductors and insulators, building a simple series circuit with a switch | **Forces -** understanding the concept of air resistance (Y5) when designing their car | | | Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. | | |

# Cross-curricular links - Year 4 continued...

| National curriculum subjects | Kapow Primary topics | | | | | | |
|---|---|---|---|---|---|---|---|
| | *Torches | *Option 1: Mechanical cars<br>*Option 2: Making a slingshot car | Mindful moments timer | *Adapting a recipe | *Option 1: Helmets | *Option 2: Pavilions | *Fastenings |
| **Art and design** | | Decorating the panels of the chassis | Decorating their mindful moments timer case | | To improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]. | Creating textural effects with materials to clad their structure | |
| **Computing** | | | Programming a micro:bit to function as a timer, debugging code, using software to create logos | | | | Taking photographs of fastenings they find |
| **Geography** | | Considering eco-friendly ways of powering cars | | | | | |
| **History** | Learning about life before electricity | Considering life before the motor car | | | | | |
| **RSE/PSHE** | Identifying electrical hazards | | Sharing ways to be mindful and how this helps us to look after our mental health | Following basic food hygiene | That each person's body belongs to them, and the differences between appropriate and inappropriate or unsafe physical, and other, contact. | | |

# Cross-curricular links - Year 5

| National curriculum subjects | Kapow Primary topics | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | *Option 1: Gears and pulleys | *Option 2: Pop-up books | *Option 1: Wobble bots | *Option 2: Doodlers | *Monitoring devices | *Developing a recipe | *Bridges | Stuffed toys |
| **English** | | Adding captions to their pop-up books to suit the audience | | **Writing -** writing instructions on how to make a Doodler | | | | |
| **Maths** | | | | | | | Measuring wood accurately to the nearest mm, draw 45° angles | |
| **Science** | **Forces** - exploring mechanisms, including, pulleys and gears | | **Electricity -**Exploring electrical circuit, identifying and naming components, working investigatively and drawing conclusions | **Electricity -**Exploring electrical circuit, identifying and naming components, working investigatively and drawing conclusions | **Animals, including humans -** finding out about the needs of animals | | Using investigative methods to test the strength of a range of bridges, considering properties of materials | |

# Cross-curricular links - Year 5

| National curriculum subjects | Kapow Primary topics | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | *Option 1: Gears and pulleys | *Option 2: Pop-up books | *Option 1: Wobble bots | *Option 2: Doodlers | *Monitoring devices | *Developing a recipe | *Bridges | Stuffed toys |
| **Art and design** | | Drawing components for their pop-up books | Designing a wobble bot in an appealing way for the user. | | | Designing a label for their bolognaise | | |
| **Computing** | | | | | Using search engines to research animals, programming and debugging an animal monitor, using CAD skills to create virtual models | Using search engines to research variations of a recipe | | |
| **Geography** | **Human and physical geography** - exploring sustainability and the use of the renewable energy resource, wind. | | | | Considering how we can use the six Rs of sustainability to develop more sustainable habits | | | |
| **History** | | | | | Learning about how thermometers have developed, learning about the history behind plastic use | | | |
| **RSE/PSHE** | | | | | Considering our shared responsibilities for protecting the environment | | | |

# Cross-curricular links - Year 6

| National curriculum subjects | Kapow Primary topics | | | | | | |
|---|---|---|---|---|---|---|---|
| | *Navigating the world | *Come dine with me | *Playgrounds | Option 1: Bags | Option 2: Waistcoats | *Steady hand game | *Automata toys |
| **English** | **Reading -** finding key points in a clients letter to create design criteria<br>**Spoken language -** presenting a pitch about their product | | | **Spoken language -** develop understanding through exploring different ideas. | | | |
| **Maths** | | | Measuring accurately to the nearest mm | **Geometry: Properties of shapes:**<br>Draw 2-D shapes using given dimensions and angles.<br>Recognise, describe and build simple 3-D shapes, including making nets.<br><br>**Ratio and proportion**<br>Solve problems involving similar shapes where the scale factor is known or can be found. | | Using net templates to create the base of their game | Measuring accurately to the nearest mm |
| **Science** | Considering materials and their functional properties | Recognising the impact of diet on our bodies | | | | Drawing circuit diagrams, naming components and their functions | |

# Cross-curricular links - Year 6

| National curriculum subjects | Kapow Primary topics | | | | | | |
|---|---|---|---|---|---|---|---|
| | *Navigating the world | *Come dine with me | *Playgrounds | Option 1: Bags | Option 2: Waistcoats | *Steady hand game | *Automata toys |
| **Art and design** | | | Creating textural effects with materials to clad their structure | | | Exploring one line drawings | |
| **Computing** | Programming a compass (all), pedometer and a light/thermometer (extension), using CAD skills to produce a virtual model | | | | | Recapping rules for safe online searching | |
| **Geography** | Considering sustainability in design | | | | | | |
| **History** | | | | | | | Learning about Victorian toys |
| **RSE/PSHE** | | Considering different dishes from other cultures, developing awareness of healthy eating, following basic food hygiene | | | | | |

# Version history

This page shows recent updates to the document.

| Date | Update |
|---|---|
| 20.03.23 | Title changed to 'National curriculum coverage.' Cooking and nutrition removed as a strand - now only a key area. |
| 28.08.23 | Year 3 unit 'Wearable technology' replaces Electronic charm. |
| 28.10.23 | Updated to reflect refreshed Cooking and nutrition units. |
| 30.04.24 | Updated to reflect refreshed 'Constructing  a windmill unit.' |
| 21.08.24 | Updated to reflect refreshed units published on the website. |
| 02.09.24 | Updated links to reflect new unit published. |
| 18.10.24 | Updated links to reflect new unit published. |
| 18.12.24 | Updated links to reflect newly published units. |
| 19.02.25 | Added missing tick on p. 7. |
| 22.05.25 | Updated to reflect newly published unit. |
| 27.06.25 | Updated to reflect newly published unit. |
| 18.07.25 | Updated to reflect newly published unit. |
| 28.08.25 | Updated to reflect newly published units. |