**D&T Curriculum Overview**

Kapow offers full coverage of the KS1 and KS2 Design & Technology curriculum and we have categorised our content into five areas:

* Structures
* Mechanisms
* Electrical Systems
* Cooking and Nutrition
* Textiles

Aside from Electrical Systems, which is KS2 only, each of these acts as the focus for a topic within each year group:

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|  | **Cooking and Nutrition** | **Mechanisms** | **Structures** | **Textiles** |  **Electrical Systems** |
| **Y1** | Fruit and Vegetable Smoothie | Moving Storybook: SlidersWheels and Axles | Windmills | Puppets |  |
| **Y2** | A Balanced Diet | Moving MonstersFerris Wheels | Baby Bear’s Chair | Pouches |  |
| **Y3** | Eating Seasonally | Pneumatic Toys | Castles | Cushions | Static Electricity |
| **Y4** | Adapting a Recipe | Slingshot Cars | Pavilions | Fastenings | Torches |
| **Y5** | What Could Be Healthier? | Pop-up Books | Bridges  | Stuffed Toys | Electric Greetings Cards |
| **Y6** | Come Dine With Me | Automata Toys | Playgrounds | Waistcoats | Steady Hand Games |

There are then four strands that run through each topic:

    

**National Curriculum by Kapow’s themes and topics**

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| --- | --- | --- |
| Key stage 1 National Curriculum D&T subject content | D&T Strands | Kapow Topics |
| Pupils should be taught to:  |  | Year 1 | Year 2 |
| Design purposeful, functional, appealing products for themselves and other users based on design criteria  | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png** | [Moving Story Books](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/mechanisms-1-making-a-moving-story-book/)[Windmills](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/structures-constructing-a-windmill/)[Puppets](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/textiles-puppets/)[Wheels and Axles](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/mechanisms-wheels-and-axels/) | [Moving Monsters](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/mechanisms-making-a-moving-monster/)[Baby Bear’s Chair](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/structures-baby-bears-chair/)[Pouches](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/textiles/)[Ferris Wheels](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/mechanisms-fairground-wheel/) |
| Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology  | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png** | [Moving Story Books](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/mechanisms-1-making-a-moving-story-book/)[Windmills,](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/structures-constructing-a-windmill/) [Puppets](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/textiles-puppets/)[Wheels and Axles](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/mechanisms-wheels-and-axels/) | [Moving Monsters](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/mechanisms-making-a-moving-monster/)[Baby Bear’s Chair](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/structures-baby-bears-chair/)[Pouches](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/textiles/)[Ferris Wheels](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/mechanisms-fairground-wheel/) |
| Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]  | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png** | [Moving Story Books](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/mechanisms-1-making-a-moving-story-book/)[Windmills](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/structures-constructing-a-windmill/)[Puppets](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/textiles-puppets/)[Wheels and Axles](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/mechanisms-wheels-and-axels/) | [Moving Monsters](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/mechanisms-making-a-moving-monster/)[Baby Bear’s Chair](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/structures-baby-bears-chair/)[Pouches](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/textiles/)[Ferris Wheels](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/mechanisms-fairground-wheel/) |
| Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png** | [Moving Books](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/mechanisms-1-making-a-moving-story-book/)[Windmills](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/structures-constructing-a-windmill/)[Puppets](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/textiles-puppets/)[Wheels and Axles](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/mechanisms-wheels-and-axels/)[Smoothies](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/food-fruit-and-vegetables/) | [Moving Monsters](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/mechanisms-making-a-moving-monster/)[Baby Bear’s Chair](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/structures-baby-bears-chair/)[Pouches](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/textiles/)[Ferris Wheels](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/mechanisms-fairground-wheel/)[A Balanced Diet](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/food-a-balanced-diet/) |
| Explore and evaluate a range of existing products  | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png** | [Moving Story Books](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/mechanisms-1-making-a-moving-story-book/)[Windmills](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/structures-constructing-a-windmill/)[Wheels and Axles](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/mechanisms-wheels-and-axels/)[Smoothies](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/food-fruit-and-vegetables/) | [Moving Monsters](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/mechanisms-making-a-moving-monster/)[Pouches](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/textiles/)[Ferris Wheels](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/mechanisms-fairground-wheel/)[A Balanced Diet](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/food-a-balanced-diet/) |
| Evaluate their ideas and products against design criteria  | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png** | [Moving Story Books](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/mechanisms-1-making-a-moving-story-book/)[Windmills](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/structures-constructing-a-windmill/)[Puppets](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/textiles-puppets/)[Wheels and Axles](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/mechanisms-wheels-and-axels/) | [Moving Monsters](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/mechanisms-making-a-moving-monster/)[Baby Bear’s Chair](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/structures-baby-bears-chair/)[Pouches](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/textiles/)[Ferris Wheels](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/mechanisms-fairground-wheel/) |
| Build structures, exploring how they can be made stronger, stiffer and more stable  | ../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.55.png | [Windmills](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/structures-constructing-a-windmill/) | [Baby Bear’s Chair](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/structures-baby-bears-chair/)[Ferris Wheels](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/mechanisms-fairground-wheel/) |
| Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. | ../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.55.png | [Moving Story Books](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/mechanisms-1-making-a-moving-story-book/)[Wheels and Axles](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/mechanisms-wheels-and-axels/) | [Moving Monsters](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/mechanisms-making-a-moving-monster/)[Ferris Wheels](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/mechanisms-fairground-wheel/) |
| **Cooking and Nutrition:** Use the basic principles of a healthy and varied diet to prepare dishes  | ../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.55.png | [Fruit and Vegetable Smoothie](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/food-fruit-and-vegetables/) | [A Balanced Diet](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/food-a-balanced-diet/) |
| **Cooking and Nutrition:** Understand where food comes from | ../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.55.png | [Fruit and Vegetable Smoothie](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/food-fruit-and-vegetables/) | [A Balanced Diet](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/food-a-balanced-diet/) |

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| Key stage 2 National Curriculum Computing subject content | D&T Strands | Kapow Topics |
| Pupils should be taught to:  |  | Y3 | Y4 | Y5 | Y6 |
| 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  | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png** | [Eating Seasonally](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/food-eating-seasonally/)Pneumatic Toys[Castles](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/structures-constructing-a-castle/)C[ushions](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/textiles-cross-stitch/)[Static Electricity](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/electrical-systems/) | [Slingshot Cars](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/mechanical-systems-making-a-slingshot-car/)Torches[Pavilions](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/structure/)[Fastenings](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/textiles/)[Adapting a Recipe](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/food-adapting-a-recipe/) | Bridges[Pop-Up Books](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/mechanical-systems-making-a-pop-up-book/)Greetings Cards[What Could Be Healthier?](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/food-what-could-be-healthier/)[Stuffed Toys](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/textiles/) |  Playgrounds[Automata Toys](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/mechanical-systems-automata-toys/)[Come Dine With Me](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/food-come-dine-with-me/) [Waistcoats](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/textiles/)Steady Hand Game |
| Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png** | Pneumatic Toys[Castles](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/structures-constructing-a-castle/)[Cushions](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/textiles-cross-stitch/)[Static Electricity](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/electrical-systems/) | [Slingshot Cars](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/mechanical-systems-making-a-slingshot-car/)Torches[Pavilions](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/structure/)[Fastenings](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/textiles/) | Bridges[Pop-Up Books](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/mechanical-systems-making-a-pop-up-book/) Greetings Cards[What Could Be Healthier?](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/food-what-could-be-healthier/)[Stuffed Toys](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/textiles/) | Playgrounds[Automata Toys](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/mechanical-systems-automata-toys/)[Waistcoats](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/textiles/)Steady Hand Game |
| Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately  | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png** | Pneumatic Toys[Castles](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/structures-constructing-a-castle/)[Cushions](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/textiles-cross-stitch/)[Static Electricity](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/electrical-systems/) | [Slingshot Cars](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/mechanical-systems-making-a-slingshot-car/)Torches[Pavilions](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/structure/)[Fastenings](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/textiles/) | Bridges[Pop-Up Books](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/mechanical-systems-making-a-pop-up-book/)Greetings CardsSoft Toys | Playgrounds[Automata Toys](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/mechanical-systems-automata-toys/)[Waistcoats](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/textiles/)Steady Hand Game |
| 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 | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png** | [Eating Seasonally](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/food-eating-seasonally/)Pneumatic Toys[Castles](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/structures-constructing-a-castle/)[Cushions](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/textiles-cross-stitch/)[Static Electricity](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/electrical-systems/) | [Slingshot Cars](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/mechanical-systems-making-a-slingshot-car/)Torches[Pavilions](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/structure/)[Fastenings](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/textiles/)[Adapting a Recipe](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/food-adapting-a-recipe/) | Bridges[Pop-Up Books](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/mechanical-systems-making-a-pop-up-book/)Greetings Cards[What Could Be Healthier?](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/food-what-could-be-healthier/)[Stuffed Toys](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/textiles/) | Playgrounds[Come Dine With Me](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/food-come-dine-with-me/) [Waistcoats](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/textiles/)Steady Hand Game |
| Investigate and analyse a range of existing products  | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png** | Pneumatic Toys[Castles](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/structures-constructing-a-castle/)[Cushions](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/textiles-cross-stitch/)[Static Electricity](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/electrical-systems/) | [Slingshot Cars](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/mechanical-systems-making-a-slingshot-car/)Torches[Pavilions](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/structure/)[Fastenings](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/textiles/)[Adapting a Recipe](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/food-adapting-a-recipe/) | Bridges[Pop-Up Books](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/mechanical-systems-making-a-pop-up-book/) Greetings Cards[Stuffed Toys](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/textiles/) | Playgrounds[Automata Toys](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/mechanical-systems-automata-toys/) [Waistcoats](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/textiles/)Steady Hand Game |
| Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png** | Pneumatic Toys[Castles](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/structures-constructing-a-castle/)[Cushions](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/textiles-cross-stitch/)[Static Electricity](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/electrical-systems/) | [Slingshot Cars](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/mechanical-systems-making-a-slingshot-car/)Torches[Pavilions](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/structure/)[Fastenings](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/textiles/)[Adapting a Recipe](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/food-adapting-a-recipe/) | Bridges[Pop-Up Books](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/mechanical-systems-making-a-pop-up-book/)Greetings Cards[Stuffed Toys](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/textiles/) | Playgrounds[Automata Toys](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/mechanical-systems-automata-toys/)[Waistcoats](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/textiles/)Steady Hand Game |
| Understand how key events and individuals in design and technology have helped shape the world  | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png** | Pneumatic Systems | [Slingshot Cars](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/mechanical-systems-making-a-slingshot-car/)Torches | [What Could Be Healthier?](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/food-what-could-be-healthier/) | [Come Dine With Me](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/food-come-dine-with-me/) |
| Apply their understanding of how to strengthen, stiffen and reinforce more complex structures  | ../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.55.png | [Castles](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/structures-constructing-a-castle/) | [Pavilions](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/structure/) | Bridges | Playgrounds |
| Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]  | ../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.55.png | Pneumatic Toys | [Slingshot Cars](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/mechanical-systems-making-a-slingshot-car/) | [Pop-Up Books](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/mechanical-systems-making-a-pop-up-book/) | [Automata Toys](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/mechanical-systems-automata-toys/) |
| Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]  | ../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.55.png | [Static Electricity](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/electrical-systems/) | Torches | Greetings Cards | Steady Hand Games |
| Apply their understanding of computing to program, monitor and control their products | ../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.55.png | Pneumatic Toys | Torches | [Computing > Mars Rover 2](https://www.kapowprimary.com/subjects/computing/upper-key-stage-2/year-5/data-hardware-and-processing-mars-rover-2/)\*, [Computing > Micro:bit](https://www.kapowprimary.com/subjects/computing/upper-key-stage-2/year-5/programming/)\*\* | [Computing > Bletchley Park 2](https://www.kapowprimary.com/subjects/computing/upper-key-stage-2/year-6/communications-and-networks/)\*\*\* |
| **Cooking and Nutrition:** Understand and apply the principles of a healthy and varied diet  | ../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.55.png | [Eating Seasonally](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/food-eating-seasonally/) | [Adapting a Recipe](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/food-adapting-a-recipe/) | [What Could Be Healthier?](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/food-what-could-be-healthier/) | [Come Dine With Me](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/food-come-dine-with-me/) |
| **Cooking and Nutrition:** Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques  | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png** | [Eating Seasonally](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/food-eating-seasonally/) | [Adapting a Recipe](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/food-adapting-a-recipe/) | [What Could Be Healthier?](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/food-what-could-be-healthier/) | [Come Dine With Me](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/food-come-dine-with-me/) |
| **Cooking and Nutrition:** Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed | ../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.55.png | [Eating Seasonally](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/food-eating-seasonally/) | [Adapting a Recipe](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/food-adapting-a-recipe/) | [What Could Be Healthier?](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/food-what-could-be-healthier/) | [Come Dine With Me](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/food-come-dine-with-me/) |

\*Mars Rover 2 is used to familiarise pupils with CAD and consider how they can use their computing knowledge to control a physical system, while identifying how the product could be adapted to make it more effective

\*\*Micro:bit involves pupils using coding to program a simple device. To make stronger links with D&T, ask pupils to consider how they could house the pedometer, polling program or scoreboard to suit its target audience

\*\*\* Bletchley Park 2 covers key components of a computer including different forms of input and asks pupils to design their own. To make stronger links with D&T, encourage them to consider how their computer would interact with physical systems

**Overview of Kapow’s topics by year**

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| **Year 1** | **Food: Fruit and Vegetable Smoothie**[*(4 lessons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-1/getting-started/)Children learn how to identify fruits and vegetables and then design and make a smoothie[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/food-fruit-and-vegetables/) | **Mechanisms:****Moving Story Books**[*(*4 les*sons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-1/programming-beebot/)Children explore levers and sliders to make a moving story book[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/mechanisms-1-making-a-moving-story-book/) | **Structures: Windmills**[*(4 lessons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-1/algorithms-unplugged/) Through the theme of windmills, pupils design and create their own structure and functioning windmill[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/structures-constructing-a-windmill/) | **Textiles: Puppets**[*(4 lessons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-1/digital-imagery/)Children learn the different ways they can join fabrics together through the creation of a puppet[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/textiles-puppets/) | **Mechanisms:****Wheels and Axles**[*(4 lessons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-1/intro-to-data/)Pupils experiment with mechanisms and troubleshoot why some wheels don’t rotate, before designing and building a moving vehicle[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-1/mechanisms-wheels-and-axels/) |
| **Curriculum coverage**  | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Designing for others**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Chopping fruit and vegetablesMaking a smoothie**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Evaluating and adapting designs../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngDescribing and grouping fruits by texture and taste Understanding the difference between fruit and vegetables | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Designing for others**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Assembling accuratelyCreating different movements (up, down, along and around)**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Testing a finished product../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngUnderstanding what a mechanism isUnderstanding how to create different movement | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Designing for others**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Assembling different components to work together to create motionAssembling accuratelyCutting neatly**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Testing a finished product../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngDeveloping awareness of different structures for different purposesUnderstanding how to turn 2D nets into 3D structuresUnderstanding what mechanisms are | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Designing for others**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Selecting suitable equipmentSequencing steps for construction**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Reflecting on their finished product../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngKnowing the different ways fabric can be joinedUnderstanding how to prepare fabric for joining | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Designing mechanisms**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Adapting MechanismsMeasuring and cutting accuratelyFollowing a design briefWorking to scaleIdentifying materials commonly used for wheels**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Researching and testing mechanisms../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngUnderstanding how an axle works |
| **Cross curricular links**  | Science |  | Maths | English | Maths |

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| **Year 2** | **Food: A Balanced Diet**[*(4 lessons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-2/data-and-data-representation-hardware-and-processing/)Pupils explore what makes a balanced diet and taste test combinations of different food groups before designing and making a wrap [**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/food-a-balanced-diet/) | **Mechanisms: Moving Monsters**[*(4 lessons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-2/word-processing/)Pupils analyse existing levers and linkage systems to identify components that they can use to plan, design and develop a mechanical monster[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/mechanisms-making-a-moving-monster/) | **Structures: Baby Bear’s Chair**[*(4 lessons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-2/programming-sratchjr/) Pupils experiment with different shapes and manipulate materials to explore and evaluate a range of structural properties. They apply this knowledge to their own design, make and test task[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/structures-baby-bears-chair/) | **Textiles: Pouches**(4 lessons)Children design and make their own wallet or purse, learning to use running stitch to join two pieces of fabric together[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/textiles/) | **Mechanisms: Ferris Wheel**(4 lessons)Pupils explore existing mechanisms in order to design, test and make their own big wheel style ride[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/key-stage-1/year-2/mechanisms-fairground-wheel/) |
| **Curriculum coverage**  | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Designing packaging for their smoothie**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Preparing food safely and hygienicallyChopping safely using the bridge grip **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Conducting product researchEvaluating a design../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngUnderstanding how fruit and vegetables growKnowing the food groupsUnderstanding what makes a balanced diet | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Creating and using design criteria, generating ideas Planning for design and manufacture**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Cutting and assembling accurately Selecting appropriate equipment and materials**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Carrying out primary research and applying to design../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngLearning mechanical componentsIdentifying input and output | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Designing for others, using criteria and applying their knowledge of structures**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Cutting and assembling accurately**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Examples of natural & manmade structuresTesting and evaluating../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngUnderstanding the definition and importance of strength, stability and stiffnessKnowing that different shapes can strengthen or weaken structures and that materials can be manipulated to improve strength and stiffness | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Considering purpose in the design process**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Threading a needleSewing a running stitchPreparing fabrics for sewing**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Discuss the making process and the finished product../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngIdentifying parts of a needle (point and eye)Understand the alternative ways of joining fabrics and embellishments | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Designing mechanisms**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Measuring and cutting accurately, working to scale and following a design brief**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Testing and adapting mechanismsResearching mechanisms../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngUnderstanding how an axle worksKnow materials commonly used for wheels |
| **Cross curricular links**  | Maths |  | Maths |  | MathsScience |

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| **Year 3** | **Food: Eating Seasonally**[*(4 lessons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-2/data-and-data-representation-hardware-and-processing/)Pupils learn about seasonality and how the climate a food is grown in can alter the way it tastes and make a crumble and tart using seasonal ingredients[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/food-eating-seasonally/) | **Mechanisms: Pneumatic Systems**[*(4 lessons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-2/word-processing/)Pupils examine pneumatic systems using syringes and balloons then apply their understanding of mechanical systems to create their own pneumatic toys**Coming Soon** | **Structures: Castles**[*(4 lessons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-2/programming-sratchjr/) Pupils learn more advanced construction techniques and plan for complex arrangements of structures with continual emphasis on evaluating throughout[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/structures-constructing-a-castle/) | **Textiles: Cushions**(4 lessons)Pupils learn to sew cross stitch and appliqué and then apply this to the design and creation of a cushion[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/textiles-cross-stitch/) | **Electrical Systems: Static Electricity**(4 lessons)Pupils are introduced to static electricity and observe the effects of it on different objects before designing and making a simple game which uses static electricity [**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-3/electrical-systems/) |
| **Curriculum coverage**  | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Designing to criteria**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png** Safely preparing fruit and vegetablesFollowing a recipe**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Tasting and evaluating their dessert../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngKnowing what foods are in season and whenUnderstanding the benefits of foods by their colourKnowing how climate alters the sweetness of food | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Generating and communicating ideas using sketching and modelling, using the views of others to improve their designs**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Selecting appropriate materials and equipment for functional and aesthetic purposes**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Assessing how well their product works and if it matches their design../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngUnderstanding how pneumatic systems work | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Planning for manufactureEstablishing and using a design criteria to help focus and evaluate their work**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Using more demanding practical skills (paper engineering/paper folding techniques)**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Evaluating as they workEvaluating their own and other’s final product../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngApplication of prior knowledge and increasing knowledge of nets | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Designing for a purpose**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Sewing cross stitch and using applique**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Compare to designs../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngConstruction of cushionsUnderstanding that fabrics can be layered for effectKnowing different stitch types | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Using design criteria to develop ideas**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Using electrostatic energy to move objects in isolation as well as part of a system**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Evaluate and adapt designs../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngUnderstanding what static electricity means and how to generate it Knowing what a target audience is |
| **Cross curricular links**  | Geography | Science  | Maths |  | Science  |

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| **Year 4** | **Food: Adapting a Recipe**[*(4 lessons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-2/data-and-data-representation-hardware-and-processing/)Pupils adapt a recipe by adding or altering the ingredients and then work in groups to create a finaldesign that falls within a setbudget and design brief[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/food-adapting-a-recipe/) | **Structures: Pavilions**[*(4 lessons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-2/programming-sratchjr/) In an introduction to pavilion architecture, pupils experiment with frame structures before designing their own landscape and pavilion, using a wider range of materials and construction techniques[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/structure/) | **Textiles: Fastenings**(4 lessons)Pupils research different types of fabric fastenings before deciding which they want to use in their design for a book sleeve[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/textiles/) | **Electrical Systems: Torches**(4 lessons)Pupils are introduced to electricity and electrical safety before making a simple electric circuit to create a functioning torch**Coming Soon** | **Mechanisms: Slingshot Cars**[*(4 lessons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-2/word-processing/)Pupils use kinetic energy to power slingshot cars, designing and making their own and then testing their effectiveness in time trials[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/lower-key-stage-2/year-4/mechanical-systems-making-a-slingshot-car/) |
| **Curriculum coverage**  | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Working within a design brief**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Following but adapting a recipePreparing food hygienically**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Discuss flavours identified../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.png Understanding the costs behind professional food preparationUnderstanding the factors that contribute to product design | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Exploring and designing within a given context/theme**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Using a range of materials and equipment to create frame structures**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Discuss existing pavilions../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngKnowing what a pavilion is Building on prior knowledge of net structures and broadening knowledge of frame structuresKnowing that architects consider light, shadow and patterns when designing | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Designing for others and planning production**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Selecting suitable tools**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Researching existing products../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngUnderstanding stitches and their benefitsKnowing how to use templates | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Designing for others**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Creating neatly presented workMaking an electrical circuit**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Evaluating to improve their workTesting their final products../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngElectricity is energyBatteries are used to store electricityKnow terminology of: insulator, conductor, L.E.D., battery, coin cell batteries | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Developing designs using the views of others to improve themUsing nets and tabs to design and make the car body**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Measuring, marking,cutting and assembling accurately**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Testing products in time trials../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngComponent names (chassis, axle etc.)Car body shape can impact speed (air resistance) |
| **Cross curricular links**  |  | Maths |  | Science  |  |

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| **Year 5** | **Food: What Could Be Healthier?**[*(4 lessons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-2/data-and-data-representation-hardware-and-processing/)Pupils adapt a bolognese recipe by adding or altering ingredients and learn about the ethical and hygienic issues of food[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/food-what-could-be-healthier/) | **Mechanisms: Pop-Up Books**[*(4 lessons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-2/word-processing/)Pupils use a range of mechanisms and construction techniques to create a pop up story book for younger children[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/mechanical-systems-making-a-pop-up-book/) | **Textiles: Stuffed Toys**(4 lessons)Pupils learn blanket stitch and then design and make 3D stuffed toys [**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-5/textiles/) | **Electrical Systems: Electric Greetings Cards**(4 lessons)Pupils explore electric circuits and apply this knowledge to design and make their own electric greetings cards**Coming Soon** | **Structures: Bridges**[*(4 lessons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-2/programming-sratchjr/) Pupils explore and experiment with a range of different bridge structures, forces and components involved in bridge building, before designing and making their own to test to destruction**Coming Soon** |
| **Curriculum coverage**  | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Adapting a recipe**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Cutting and preparing vegetables hygienically Cooking meat safely**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Tasting and adapting the dish during cooking process../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngKnow where meat comes from and understand ethical issues around beefKnow nutritional values of packaged food | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Planning using storyboards and designs, communicating through words and illustrations**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Making functional componentsUsing layers and spacers to construct pagesCutting and assembling with accuracy**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Constantly evaluating progress against design../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngUnderstand sliders, levers and linkagesUnderstand structures and mechanisms | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Designing for a purpose**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Accurately cutting and joining**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Comparing 3D object to 2D design../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngUnderstand constructions methods for 3D shapesKnowing how to create a hidden seam | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Applying knowledge to generate design ideasIdentifying target audiences**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png** Making circuits**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Experimenting with circuits to consolidate knowledge of functionTesting function of product../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngDrawing circuit diagramsKnowing the function of different componentsUnderstanding the terminology: insulator, conductor, LED, battery | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Design arch and truss bridges**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Selecting materials and equipment according to functional propertiesWorking with increasing accuracy in practical tasksUse triangulation for bracing**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png** Testing to destruction to evaluate the successful and unsuccessful properties of a design and its materials../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngUnderstanding the importance of compression and tension in bridge structures |
| **Cross curricular links** | MathsComputing | English |  |  |  |

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| **Year 6** | **Food: Come Dine With Me**[*(4 lessons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-2/data-and-data-representation-hardware-and-processing/)Working in groups, children research and prepare a three course meal that will be taste tested and scored as well as researching the journey of their main ingredient ,from ‘farm to fork’[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/food-come-dine-with-me/) | **Mechanisms: Automata Toys**[*(4 lessons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-2/word-processing/)Pupils develop their woodworking skills and explore cams to design and make mechanical window displays[**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/mechanical-systems-automata-toys/) | **Textiles: Waistcoats**(4 lessons)After drawing a design in accordance with their own criteria, pupils learn how to measure, cut and assemble fabric to create a waistcoat [**Go to topic**](https://www.kapowprimary.com/subjects/design-and-technology/upper-key-stage-2/year-6/textiles/) | **Electrical Systems: Steady Hand Games**(4 lessons)Pupils create electromagnetic toys and more complex electronic circuits to create a steady hand game**Coming Soon** | **Structures: Playgrounds**[*(4 lessons)*](https://www.kapowprimary.com/subjects/computing/key-stage-1/year-2/programming-sratchjr/) Pupils have the opportunity to be creative and experiment with a wide range of materials and equipment, applying prior knowledge of net and frame structures as well as bracing and cladding to design and make a playground **Coming Soon** |
| **Curriculum coverage**  | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Using recipe books/websites**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Working with food hygienically and safely Working to a timescale**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Tasting and evaluating their own food../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngUnderstanding the risks of meat or fish when not cooked or stored properlyUnderstanding safe storage of meat/fish | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Experimenting with cams to make suitable design decisions**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Measuring, marking and cutting woodwork accuratelySelecting appropriate equipmentAssembling components accurately**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Checking accuracy of work../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngNaming types of camKnowing how cams impacts follower movements | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Designing for a process**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Accurate cutting and joining, using running stitchCreating something in a given style **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Evaluating work continually../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngKnowing how to create hidden seams | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Generating ideas through sketching and discussionModelling ideas through prototypes**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Cutting and assembling with accuracy**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Adapting products to improve functionalityTesting finished product../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngCreating and using electric circuits in their designsKnowing how to make electromagnetic motors | **../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.30.png**Establishing and using a design criteria to help focus and evaluate their work**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.01.png**Increasingly more demanding practical skills Selecting materials for their aesthetic and functional propertiesMake, strengthen and stiffen a range of structures**../Desktop/Screen%20Shot%202018-11-28%20at%2013.24.09.png**Exploring existing playground structures../Desktop/Screen%20Shot%202018-11-28%20at%2013.38.55.pngApplying knowledge of construction techniques to realise design ideasStabilising more complex structures using bracing |
| **Cross curricular links**  | PSHE |  |  | Science  |  |