



St Mark's C of E Primary School: Medium Term Planning


Design and Technology: Cycle B Spring Term

KS1

Unit Focus: Food: Fruit and Vegetables ([Kapow Primary – Design and Technology – Y1 – Cooking and Nutrition](#))

- NC Objectives:
- select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
 - select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics
 - design purposeful, functional, appealing products for themselves and other users based on design criteria
 - generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology
 - explore and evaluate a range of existing products
 - evaluate their ideas and products against design criteria
 - Use the basic principles of a healthy and varied diet to prepare dishes.
 - Understand where food comes from

	Learning Objective What is being learned rather than what is being done	Resources Any links to resources.	End-point knowledge What knowledge should children have gained by the end of the lesson? This will be the focus of retrieval activities and monitoring.
1	To know where fruits and vegetables come from.	Kapow: Fruit and veg picture cards, where fruit and veg grow worksheet Twinkl: Fruit and Veg picture cards, What am I? Powerpoint	Vocabulary: Fruit, vegetable, seed <ul style="list-style-type: none"> - Definition of a fruit: A fruit is the part of a plant which contains seeds. - Definition of a vegetable: A vegetable is from the other parts of a plant. - Fruits that are often identified as vegetables incorrectly: Avocado, pepper, cucumber, butternut squash, tomato - I know that fruits and vegetables grow in one of three places. (On trees/vines, above ground or below ground) - I can identify if food is a fruit or a vegetable. - Name fruits: bananas, avocado, orange, apple, cucumber, grapes, kiwi, pepper, butternut squash, strawberry, pineapple, mango, blueberry, tomato - Name vegetables: potatoes, lettuce, onions, beans, carrots, spinach, celery, parsnip

2	<p>To design a smoothie.</p>	<p>Kapow: Taste testing worksheet</p> <p>Pre-cut fruit Pre-juiced fruit juices</p>	<p>Vocabulary: smoothie, blended, recipe Example adjectives: sweet, strong, citrus, earthy, bitter, juicy, watery, dry, crunchy</p> <ul style="list-style-type: none"> - A smoothie is a drink made from fruit and/or vegetables which have been blended together. - I can suggest which fruits are in a drink. - I can describe a fruit using my senses. - I can choose one juice and two fruits for my smoothie. - I can give reasons why I have chosen my fruits and juice. - I can describe the smell and taste of the fruits and juice I have chosen.
3	<p>To use a range of tools safely to cut and juice.</p>	<p>Kapow: Making a Smoothie video</p> <p>Chopping boards, knives, juicers, forks (staffroom)</p> <p>Range of fruits</p>	<p>Vocabulary: Tool, bridge, bridge hold, chopping board</p> <ul style="list-style-type: none"> - I can identify which tool is best for juicing and slicing. - I know to handle tools safely: Hold a knife pointing downwards if you move with it, point the knife away from you and other people. - Always steady the food on a chopping board. - I know how to use a bridge hold. <div data-bbox="1377 566 2139 917"> <p>The bridge hold</p>  <p>Method Create a bridge over the food with your hand. The fingers should be on one side and the thumb should be on the other. Hold the food to be cut between the fingers and thumb creating a bridge. The knife should go through the bridge to cut the food.</p> <p>Tips To help children remember this method, they might like to think of the knife as a train which goes under the bridge and through the tunnel.</p> <p>Use This method is useful in lots of situations. It is especially useful for cutting circular items into halves and quarters, e.g. tomatoes, apples.</p> <p>Safety This method ensures that fingers are out of the way as the knife cuts through the food.</p> </div>

			<p>you move with it, point the knife away from you of other people.</p> <ul style="list-style-type: none"> - Always steady the food on a chopping board. - I know how to use a claw grip.
5	To make a smoothie.	<p>Fruits Chopping boards, knives, juicers, forks (staffroom) Blenders/smoothie makers</p>	<p>Vocabulary: claw grip, bridge hold, recipe</p> <ul style="list-style-type: none"> - I can handle tools safely - I can cut using a bridge hold or claw grip - I can peel away from myself - I can follow my recipe
6	To evaluate my smoothie.	<p>Kapow: Evaluation Sheet</p>	<p>Vocabulary: evaluate Example adjectives: sweet, strong, citrus, earthy, bitter, juicy, watery, dry, crunchy</p> <ul style="list-style-type: none"> - I can say what I found hard - I can say something that I have learned - I can say whether I liked my smoothie and why

UKS2

Unit Focus: Electrical Systems ([Kapow Primary – Design and Technology – Y6 – Electrical Systems](#))

- NC Objectives:
- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
 - generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
 - evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
 - select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
 - apply their understanding of how to strengthen, stiffen and reinforce more complex structures
 - understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]

	Learning Objective What is being learned rather than what is being done	Resources Any links to resources.	End-point knowledge What knowledge should children have gained by the end of the lesson? This will be the focus of retrieval activities and monitoring.
1	To understand the difference between form and function.	Kapow – Developing through play PowerPoint, children's toy research sheet, toy survey sheet	Vocabulary: fit for purpose, form, function, user, product <ul style="list-style-type: none"> - Fit for purpose means when a product or service does what it's supposed to do. - Form is the shape and appearance of an object. - Function is the purpose of an object or how the product works. - I understand that products should be designed with the function in mind first, then the design/form wrapped around it.
2	To design a steady hand game.	Kapow – steady hand game diagram, videos, design sheet	Vocabulary: components, base, battery holder, battery, buzzer, crocodile clip, handle, switch, wire, design criteria <ul style="list-style-type: none"> - I can identify and name the components in a steady hand game: Base, battery holder, battery, buzzer, crocodile clip, handle, switch, wire - I can identify and use recognised symbols in a circuit: battery, buzzer, switch and wire - I can create purposeful design criteria - I can create a design that reflects the design criteria
3	To use a range of tools to cut, fold and	Kapow – base building video, example nets	Vocabulary: score, cut, accuracy, net, assemble <ul style="list-style-type: none"> - I can use a craft knife to score

	assemble with precision.	Craft knives, cutting mats, steel rulers (DT cupboard in staffroom) Card	<ul style="list-style-type: none"> - I can use a craft knife to cut card - I can use a steel ruler to cut straight lines in card - I can hold a craft knife safely
4	To construct a stable and aesthetic base.	Craft knives, cutting mats, steel rulers (DT cupboard in staffroom) A3 Card (with net printed on)	<p>Vocabulary: decoration, stable, aesthetic</p> <ul style="list-style-type: none"> - I can follow my plan when decorating my net - I can use a craft knife to score - I can use a craft knife to cut card - I can use a steel ruler to cut straight lines in card - I can hold a craft knife safely - I can assemble a net neatly
5	To assemble electronics to complete an electronic game.	Kapow – electronics and assembly video Children’s plans Batteries, battery holders, buzzers, crocodile clips, switches (science cupboard) Wire, pliers	<p>Vocabulary: bend, circuit, pliers, conduct</p> <ul style="list-style-type: none"> - I can use my plan to make a circuit including a buzzer and a switch. - I can use my fingers and/or pliers to bend wire into a desired shape. - I can combine my base and circuit to build the game.
6	To evaluate my (electrical system) steady hand game.	Kapow: Evaluation sheet Completed steady hand games – Could parents be invited in to play them/test the product? Especially as children will be unable to take their circuit components home.	<p>Vocabulary: evaluate</p> <ul style="list-style-type: none"> - I can evaluate my product based on my design criteria - I can say something that I found hard - I can say something that I have learned - I can say something that I would do differently and give reasons why - I know that evaluations are important to improve products