



**SUBJECT:** Design & Technology

We believe our Design and Technology curriculum will enable children to develop the skills and understanding of the construction and manipulation of a variety of mediums using a range of implements that are essential throughout their lives. Our children will understand and implement a safe and hygienic work station to create their product by thinking about their own well-being and safety but also that of the consumers.

In the EYFS and KS1, Design and Technology will equip our children with the skills and knowledge of basic planning, creating and critiquing of their products. Our children will begin to critique prototypes, plan their own product with improvements and justify their choices and the changes made through class evaluations. Through the creation of their products our children will be improving their fine and gross motor skills and understanding the importance of different materials and how they can be manipulated to construct their product or join other mediums.

In KS2 our children will be building upon their knowledge and skills by independently creating their own prototype through a simpler medium before evaluating and suggesting improvements on their prototype. Our children will be looking at joins, hinges, frames and measurements as a way of accurately displaying their understanding of their own design and the functionality of it. They will learn specific vocabulary relating to construction, textiles and cooking while gaining inspiration from famous current and historical architects, designers and chefs. Our children will have a target audience in mind and will design and create a product to suit that audience.

	Skills	Knowledge
N	<p><b><u>Construction</u></b></p> <ul style="list-style-type: none"> <li>• Can use one-handed tools and equipment, e.g. makes snips in paper with child scissors</li> <li>• Can use equipment and tools safely</li> <li>• Can use various construction materials</li> <li>• Can construct, stacking blocks vertically and horizontally, making enclosures and creating spaces</li> <li>• Can join construction pieces together to build and balance.</li> </ul>	<p><b><u>Construction</u></b></p> <ul style="list-style-type: none"> <li>• Understands how to use one-handed tools and equipment</li> <li>• Understands that equipment and tools have to be used safely</li> <li>• Understands how to construct, stacking blocks vertically and horizontally, making enclosures and creating spaces.</li> <li>• Realises tools can be used for a purpose</li> </ul>

	<ul style="list-style-type: none"> <li>• Can use tools for different purposes</li> </ul> <p><b><u>Cooking</u></b></p> <ul style="list-style-type: none"> <li>• Can use one-handed tools and equipment, e.g. makes snips in paper with child scissors</li> <li>• Can use equipment and tools safely</li> <li>• Can follow simple instructions</li> <li>• Can describe the texture of things</li> </ul> <p><b><u>Textiles</u></b></p> <ul style="list-style-type: none"> <li>• Can describe the texture of things</li> <li>• Can use one-handed tools and equipment, e.g. makes snips in paper with child scissors</li> <li>• Can use equipment and tools safely</li> <li>• Can use tools for different purposes</li> </ul>	<p><b><u>Cooking</u></b></p> <ul style="list-style-type: none"> <li>• Understands how to use one-handed tools and equipment</li> <li>• Understands that equipment and tools have to be used safely</li> <li>• Realises tools can be used for a purpose</li> </ul> <p><b><u>Textiles</u></b></p> <ul style="list-style-type: none"> <li>• Understands different textures and how to describe them.</li> <li>• Understands how to use one-handed tools and equipment</li> <li>• Understands that equipment and tools have to be used safely</li> <li>• Realises tools can be used for a purpose</li> </ul>
R	<p><b><u>Construction</u></b></p> <ul style="list-style-type: none"> <li>• Can use simple tools to effect changes to materials</li> <li>• Can handle tools, objects, construction and malleable materials safely and with increasing control</li> <li>• Can transport and store equipment safely</li> <li>• Practices some appropriate safety measures without direct supervision</li> <li>• Can use different media to combine and create new effects</li> <li>• Can manipulate materials to achieve a planned effect</li> <li>• Can construct with a purpose in mind, using a variety of resources</li> <li>• Can select appropriate resources and adapts work where necessary</li> <li>• Can select tools and techniques needed to shape, assemble and join materials they are using</li> </ul> <p><b><u>Cooking</u></b></p>	<p><b><u>Construction</u></b></p> <ul style="list-style-type: none"> <li>• Understands how to use simple tools to effect changes to materials</li> <li>• Understands how to handle tools, objects, construction and malleable materials safely and with increasing control</li> <li>• Understands the need for safety when tackling new challenges, and considers and manages some risks</li> <li>• Understands how to transport and store equipment safely</li> <li>• Understands the need for safety measures</li> <li>• Understands that different media can be combined to create new effects</li> <li>• Understand how to manipulate materials to achieve a planned effect</li> </ul> <p><b><u>Cooking</u></b></p>

- Can use simple tools to effect changes to materials
- Can handle tools, objects, construction and malleable materials safely and with increasing control
- Can transport and store equipment safely
- Practices some appropriate safety measures without direct supervision
- Combine ingredients to create different textures
- Can manipulate materials to achieve a planned effect
- Can use simple tools and techniques competently and appropriately

### Textiles

- Can use simple tools to effect changes to materials.
- Can handle tools, objects, construction and malleable materials safely and with increasing control.
- Can identify and compare different textures.
- Can combine different media to create new effects.
- Can manipulate materials to achieve a planned effect.
- Can construct with a purpose in mind, using a variety of resources.
- Can select appropriate resources and adapts work where necessary.
- Can select tools and techniques needed to shape, assemble and join materials they are using.

- Understands how to use simple tools to effect changes to materials
- Understands how to handle tools, objects, construction and malleable materials safely and with increasing control
- Understands the need for safety when tackling new challenges, and considers and manages some risks
- Understands how to transport and store equipment safely
- Understands the need for safety measures
- Understand how to manipulate materials to achieve a planned effect
- Understand how to use simple tools and techniques competently and appropriately

### Textiles

- Understands how to use simple tools to effect changes to materials.
- Understands that different media can be combined to create new effects.
- Understand how to manipulate materials to achieve a planned effect.

Y1	<p><b>Construction</b> The structures pupils build in KS1 should be predominantly freestanding, including, walls, towers and frameworks. Through exploring and assembling they should learn how to make structures stronger, stiffer and more stable. Construction kits including Lego and Meccano should be used to allow pupils to explore some of the techniques e.g. joining, strengthening and designing. Products can be designed with imaginary or fictional characters as the consumer.</p> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>• Can select appropriate materials in relation to their properties</li> <li>• Can draw and label what their intended product will look like</li> <li>• Can design a product according to a given simple two point design criteria</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>• Cutting materials safely using tools provided e.g. card and scissors</li> <li>• Measure and mark out to the nearest centimeter</li> <li>• Use a range of cutting and shaping techniques e.g. tearing, cutting, folding, curling and bending</li> <li>• Can use a range of joining techniques e.g. gluing, hinges and combining materials to strengthen</li> <li>• Can build a prototype from reusable resources e.g. Lego</li> <li>• Can create a simple moving part using levers or sliders.</li> </ul> <p><b>Evaluate</b> Through discussion and peer assessment:</p> <ul style="list-style-type: none"> <li>• Can say what they like and dislike about a design</li> <li>• Can reflect on the suitability of the product for the intended consumer</li> <li>• Can suggest improvements based on a prototype</li> </ul>	<p><b>Construction</b></p> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>• To know the properties of certain materials</li> <li>• To know what a label is and why it is useful</li> <li>• To understand what a product is</li> <li>• To understand why a design criteria is used</li> </ul> <p><b>Vocabulary:</b> properties, materials, label, product, design criteria</p> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>• To know what cutting and shaping is</li> <li>• To know what joining is</li> <li>• To know how to cut safely and efficiently</li> <li>• To know what measuring is and why it is important</li> <li>• To know what reusable resources are</li> <li>• To know what a prototype is</li> <li>• To know what levers and sliders are</li> </ul> <p><b>Vocabulary:</b> materials, safety, tools, card, scissors, measure, centimetre, cut, shape, technique, tear, fold, curl, bend, join, glue, hinge, combine, strengthen, prototype, reusable resources, lever, slider</p> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>• To know what an intended consumer is</li> <li>• To know what suitability is</li> <li>• To know what improvement means</li> </ul>

**Cooking** Products can be designed with imaginary or fictional characters as the consumer. Cooking should centre around health and nutrition and should be focusing on predominantly savoury dishes

**Design**

- Can select appropriate ingredients in relation to their properties
- Can draw and label what their intended product will look like
- Can design a product according to a given simple two point design criteria
- Can plan for a hygienic and safe environment to prepare their products in

**Make**

- Can cut, peel or grate ingredients safely and hygienically
- Can measure and weigh ingredients using measuring cups or electronic scales
- Can prepare simple dishes safely and hygienically with or without a heat source

**Evaluate**

Through discussion and peer assessment:

- Can say what they like and dislike about a design
- Can reflect on the suitability of the product for the intended consumer

**Vocabulary:** intended consumer, suitability, improvement

**Cooking**

**Design**

- To know the properties of selected ingredients
- To know what a label is and why it is useful
- To understand what a product is
- To understand why a design criteria is used
- To know why a hygienic and safe environment is important

**Vocabulary:** properties, materials, label, product, design criteria, safe, hygienic

**Make**

- To know how to safely and hygienically prepare ingredients
- To know the terms, cut, peel, grate
- To know what measuring is and why it is important
- To know where food comes from where food comes from: plants or animals
- To know that food can be farmed, grown elsewhere (e.g. home) or caught
- To know food categories
- To know that everyone should eat at least 5 portions of fruit and vegetables a day

**Vocabulary:** safety, hygiene, prepare, ingredients, cut, peel, grate, measure, plants, animals, farmed, grown, caught, categories, fruit, vegetables

**Evaluate**

- To know what an intended consumer is
- To know what suitability is
- To know what improvement means

- Can suggest improvements based on a prototype

**Textiles** Products can be designed with imaginary or fictional characters as the consumer.

**Design**

- Can select appropriate materials in relation to their properties
- Can draw and label what their intended product will look like
- Can design a product according to a given simple two point design criteria

**Make**

- Shape textiles using templates
- Join textiles using running stitch
- Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing)

**Evaluate**

Through discussion and peer assessment:

- Can say what they like and dislike about a design
- Can reflect on the suitability of the product for the intended consumer
- Can suggest improvements based on a prototype

**Vocabulary:** intended consumer, suitability, improvement

**Textiles**

**Design**

- Understanding the properties of certain materials
- To know what a label is and why it is useful
- To understand what a product is
- To understand the use of a design criteria

**Vocabulary:** properties, materials, label, product, design criteria

**Make**

- To know what seam allowance is and why it is used
- To know what a template is and why it is useful
- To know what a running stitch is

**Vocabulary:** seam allowance, template, running stitch

**Evaluate**

- To know what an intended consumer is
- To know what suitability is
- To know what improvement means

**Vocabulary:** intended consumer, suitability, improvement

Y2	<p><b>Construction:</b> the structures pupils build in KS1 should be predominantly freestanding, including, walls, towers and frameworks. Through exploring and assembling they should learn how to make structures stronger, stiffer and more stable. Construction kits including Lego and Meccano should be used to allow pupils to explore some of the techniques e.g. joining, strengthening and designing. Products can be designed with imaginary or fictional characters as the consumer.</p> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>• Can select appropriate materials in relation to their properties</li> <li>• Can draw and label what their intended product will look like</li> <li>• Can design a product according to a given simple three or four point design criteria</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>• Cutting materials safely using tools provided e.g. card and scissors</li> <li>• Measure and mark out to the nearest centimeter</li> <li>• Use a range of cutting and shaping techniques e.g. tearing, cutting, folding, curling and bending</li> <li>• Can use a range of joining techniques e.g. gluing, hinges and combining materials to strengthen</li> <li>• Can build a prototype from reusable resources e.g. Lego</li> <li>• Can create a simple moving part using levers, sliders, axles and wheels</li> </ul> <p><b>Evaluate</b> Through discussion and peer assessment:</p>	<p><b>Construction</b></p> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>• To know the properties of certain materials</li> <li>• To know what a label is and why it is useful</li> <li>• To understand what a product is</li> <li>• To understand why a design criteria is used</li> </ul> <p><b>Vocabulary:</b> properties, materials, label, product, design criteria</p> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>• To know what cutting and shaping is</li> <li>• To know what joining is</li> <li>• To know how to cut safely and efficiently</li> <li>• To know what measuring is and why it is important</li> <li>• To know what reusable resources are</li> <li>• To know what a prototype is</li> <li>• To know what levers and sliders are</li> </ul> <p><b>Vocabulary:</b> materials, safety, tools, card, scissors, measure, centimetre, cut, shape, technique, tear, fold, curl, bend, join, glue, hinge, combine, strengthen, prototype, reusable resources, lever, slider, axles, wheels</p> <p><b>Evaluate</b></p>

- Can say what went well and what could be improved
- Can reflect on the suitability of the product for the intended consumer
- Can make improvements based on a prototype

**Cooking:** Products can be designed with imaginary or fictional characters as the consumer. Cooking should centre around health and nutrition and should be focusing on predominantly savoury dishes.

#### Design

- Can select appropriate ingredients in relation to their properties
- Can draw and label what their intended product will look like
- Can design a product according to a given simple three or four point design criteria
- Can plan for a hygienic and safe environment to prepare their products in

#### Make

- Can cut, peel or grate ingredients safely and hygienically
- Can measure and weigh ingredients using measuring cups or electronic scales
- Can prepare simple savoury dishes safely and hygienically with or without a heat source

- To know what an intended consumer is
- To know what suitability is
- To know what improvement means
- To know what a prototype is

**Vocabulary:** intended consumer, suitability, improvement, prototype

#### Cooking

#### Design

- To know the properties of selected ingredients
- To know what a label is and why it is useful
- To understand what a product is
- To understand why a design criteria is used
- To know why a hygienic and safe environment is important

**Vocabulary:** properties, materials, label, product, design criteria, safe, hygienic

#### Make

- To know how to safely and hygienically prepare ingredients
- To know the terms, cut, peel, grate
- To know what measuring is and why it is important
- To know some ways of measuring ingredients e.g. cups, scales
- To know where food comes from where food comes from: plants or animals
- To know that food can be farmed, grown elsewhere (e.g. home) or caught
- To know food categories
- To know that everyone should eat at least 5 portions of fruit and vegetables a day
- To know the difference between savoury and sweet
- To know that there are different types of heat source

**Vocabulary:** safety, hygiene, prepare, ingredients, cut, peel, grate,



### Evaluate

Through discussion and peer assessment:

- Can say what went well and what could be improved
- Can reflect on the suitability of the product for the intended consumer
- Can make improvements based on a prototype

**Textiles:** Products can be designed with imaginary or fictional characters as the consumer.

### Design

- Can select appropriate materials in relation to their properties
- Can draw and label what their intended product will look like
- Can design a product according to a given simple three or four point design criteria

### Make

- Shape textiles using templates
- Join textiles using running stitch
- Begin to allow for seam allowance
- Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing)

### Evaluate

Through discussion and peer assessment:

- Can say what went well and what could be improved
- Can reflect on the suitability of the product for the intended consumer
- Can make improvements based on a prototype

measure, plants, animals, farmed, grown, caught, categories, fruit, vegetables, cups, scales, savoury, sweet, heat source

### Evaluate

- To know what an intended consumer is
- To know what suitability is
- To know what improvement means
- To know what a prototype is

**Vocabulary:** intended consumer, suitability, improvement, prototype

### Textiles

### Design

- To know the properties of selected materials
- To know what a label is and why it is useful
- To understand what a product is
- To understand the use of a design criteria

**Vocabulary:** properties, materials, label, product, design criteria

### Make

- To know what seam allowance is and why it is used
- To know what a template is and why it is useful
- To know what a running stitch is
- To know why a designer might colour or decorate a product

**Vocabulary:** seam allowance, template, running stitch, colour, decorate

### Evaluate

- To know what an intended consumer is
- To know what suitability is
- To know what improvement means
- To know what a prototype is

**Vocabulary:** intended consumer, suitability, improvement, prototype

Y3	<p><b><u>Construction</u></b></p> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>• Can select appropriate materials in relation to their properties</li> <li>• Can draw and label (with added explanation and detail) what their intended product will look like</li> <li>• Can design a product according to a class created three or four point design criteria</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>• Choose suitable techniques to construct products or to repair items</li> <li>• Strengthen materials using suitable techniques</li> <li>• Use knowledge of the transference of forces to choose appropriate mechanisms for a product (e.g. levers , winding mechanisms, pulleys and gears)</li> <li>• Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage)</li> <li>• Cut materials safely and accurately by selecting appropriate tools</li> <li>• Measure and mark out to the nearest millimeter</li> <li>• Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs)</li> <li>• Select appropriate joining techniques/resources</li> </ul>	<p><b><u>Construction</u></b></p> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>• To know the properties of certain materials</li> <li>• To know what a label is and why it is useful</li> <li>• To know why a designer adds explanation/detail to a label</li> <li>• To understand what a product is</li> <li>• To understand why a design criteria is used</li> </ul> <p><b>Vocabulary:</b> properties, materials, label, product, design criteria, explanation, detail</p> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>• To know some repairing techniques</li> <li>• To know about the transference of forces: leavers, winding mechanisms, pulleys, gears</li> <li>• To know what a fault is</li> <li>• To know what cutting and shaping is</li> <li>• To know what joining is</li> <li>• To know how to cut safely and efficiently</li> <li>• To know what measuring is and why it is important</li> <li>• To know what reusable resources are</li> <li>• To know what a prototype is</li> <li>• To know what levers and sliders are</li> </ul> <p><b>Vocabulary:</b> materials, safety, tools, card, scissors, measure, centimetre, cut, shape, technique, tear, fold, curl, bend, join, glue, hinge, combine, strengthen, prototype, reusable resources, lever, slider, axles, wheels, repair, transference, forces, winding mechanism, pulley, gears, fault, battery</p>

### **Evaluate**

Through discussion, peer assessment and in writing:

- Can explain what went well and what could be improved
- Can reflect on the suitability of the product for the intended consumer
- Improve designs and products giving reasons for choices

**Cooking** Cooking should centre around health and nutrition and should be focusing on predominantly savoury dishes using a range of cooking techniques.

### **Design**

- Can select appropriate ingredients in relation to their properties
- Can draw and label (with added explanation and detail) what their intended product will look like
- Can design a product according to a class created three or four point design criteria

### **Make**

- Prepare ingredients hygienically using appropriate utensils
- Measure ingredients to the nearest gram accurately
- Follow a recipe
- Assemble or cook healthy ingredients (controlling the temperature of the oven or hob, if cooking)

### **Evaluate**

- To know what an intended consumer is
- To know what suitability is
- To know what improvement means
- To know what a prototype is
- To know that giving reasons for improvements makes them more convincing

**Vocabulary:** intended consumer, suitability, improvement, prototype, reasons

### **Cooking**

### **Design**

- To know the properties of selected ingredients
- To know what a label is and why it is useful
- To know why a designer adds explanation/detail to a label
- To understand what a product is
- To understand why a design criteria is used
- To know why a hygienic and safe environment is important

**Vocabulary:** properties, materials, label, product, design criteria, safe, hygienic, explanation, detail

### **Make**

- To know how to safely and hygienically prepare ingredients
- To know that different utensils have different uses
- To know the terms, cut, peel, grate
- To know what measuring is and why it is important
- To know what a recipe is and why it is used
- To know that some ingredients are healthier than others
- To know that temperature and cooking time can be controlled for different results
- To know some ways of measuring ingredients e.g. cups, scales
- To know where food comes from where food comes from: plants or animals
- To know that food can be farmed, grown elsewhere (e.g. home) or caught

### Evaluate

Through discussion, peer assessment and in writing:

- Can explain what went well and what could be improved
- Can reflect on the suitability of the product for the intended consumer
- Improve designs and products giving reasons for choices

- To know food categories
- To know that everyone should eat at least 5 portions of fruit and vegetables a day
- To know the difference between savoury and sweet
- To know that there are different types of heat source

**Vocabulary:** safety, hygiene, prepare, ingredients, cut, peel, grate, measure, plants, animals, farmed, grown, caught, categories, fruit, vegetables, cups, scales, savoury, sweet, heat source, utensil, recipe, healthier, temperature, controlled

### Evaluate

- To know what an intended consumer is
- To know what suitability is
- To know what improvement means
- To know what a prototype is
- To know that giving reasons for improvements makes them more convincing

**Vocabulary:** intended consumer, suitability, improvement, prototype, reasons

**Textiles**  
**Design**

- Can select appropriate materials in relation to their properties
- Can draw and label (with added explanation and detail) what their intended product will look like
- Can design a product according to a class created three or four point design criteria

**Make**

- Join textiles using backstitch with reference to running stitch
- Select the most appropriate techniques to decorate textiles
- Begin to allow for seam allowance
- Apply appropriate cutting and shaping techniques that include cuts within the parameter of the material (such as slots or cut outs)

**Evaluate**

Through discussion, peer assessment and in writing:

- Can explain what went well and what could be improved
- Can reflect on the suitability of the product for the intended consumer
- Improve designs and products giving reasons for choices

**Textiles**  
**Design**

- To know the properties of selected materials
- To know what a label is and why it is useful
- To understand what a product is
- To understand the use of a design criteria
- To know why a designer adds explanation/detail to a label

**Vocabulary:** properties, materials, label, product, design criteria, explanation, detail

**Make**

- To know what seam allowance is and why it is used
- To know what a template is and why it is useful
- To know what a running stitch is
- To know what back stitch is
- To know some cutting and shaping techniques
- To know why a designer might colour or decorate a product

**Vocabulary:** seam allowance, template, running stitch, colour, decorate, cutting, shaping

**Evaluate**

- To know what an intended consumer is
- To know what suitability is
- To know what improvement means
- To know what a prototype is
- To know that giving reasons for improvements makes them

		<p>more convincing</p> <p><b>Vocabulary:</b> intended consumer, suitability, improvement, prototype, reasons</p>
Y4	<p><b><u>Construction</u></b> <b>Design</b></p> <ul style="list-style-type: none"> <li>● Can select appropriate materials in relation to their properties</li> <li>● Can draw and label (with added explanation and detail) what their intended product will look like, now including measurements and alternate views</li> <li>● Can design a product according to a class created three or four point design criteria</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>● Choose suitable techniques to construct products or to repair items</li> <li>● Strengthen materials using suitable techniques</li> <li>● Use knowledge of the transference of forces to choose appropriate mechanisms for a product (e.g. levers , winding mechanisms, pulleys and gears)</li> <li>● Cut materials safely and accurately by selecting appropriate tools</li> <li>● Measure and mark out to the nearest millimeter</li> <li>● Apply appropriate cutting and shaping techniques that include cuts within the parameter of the material (such as slots or cut outs)</li> <li>● Select appropriate joining techniques/resources</li> </ul>	<p><b><u>Construction</u></b> <b>Design</b></p> <ul style="list-style-type: none"> <li>● To know the properties of certain materials</li> <li>● To know what a label is and why it is useful</li> <li>● To know why a designer adds explanation/detail to a label</li> <li>● To know why a design should include measurements</li> <li>● To know why a design should include alternate views</li> <li>● To understand what a product is</li> <li>● To understand why a design criteria is used</li> </ul> <p><b>Vocabulary:</b> properties, materials, label, product, design criteria, explanation, detail, measurements, alternate views</p> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>● To know some repairing techniques</li> <li>● To know about the transference of forces: leavers, winding mechanisms, pulleys, gears</li> <li>● To know what a fault is</li> <li>● To know what cutting and shaping is</li> <li>● To know what joining is</li> <li>● To know how to cut safely and efficiently</li> <li>● To know what measuring is and why it is important</li> <li>● To know what reusable resources are</li> <li>● To know what a prototype is</li> <li>● To know what levers and sliders are</li> <li>● To know that different tools perform different tasks e.g. saw, hammer etc.</li> </ul>

- Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage)
- Create series and parallel circuits

### Evaluate

Through discussion, peer assessment and in writing:

- Can explain what went well and what could be improved
- Can reflect on the suitability of the product for the intended consumer
- Improve designs and products giving reasons for choices

**Cooking:** Cooking should centre around health and nutrition and should be focusing on predominantly savoury dishes using a range of cooking techniques.

### Design

- Can select appropriate materials in relation to their properties.
- Can draw and label (with added explanation and detail) what their intended product will look like
- Can design a product according to a class created three or four point design criteria

### Make

- Prepare ingredients hygienically using appropriate utensils
- Measure ingredients to the nearest gram accurately
- Follow a recipe
- Assemble or cook healthy ingredients (controlling the temperature of the oven or hob, if cooking)

- To know what series and parallel circuits are

**Vocabulary:** materials, safety, tools, card, scissors, measure, centimetre, cut, shape, technique, tear, fold, curl, bend, join, glue, hinge, combine, strengthen, prototype, reusable resources, lever, slider, axles, wheels, repair, transference, forces, winding mechanism, pulley, gears, fault, battery, tools, circuit, series, parallel

### Evaluate

- To know what an intended consumer is
- To know what suitability is
- To know what improvement means
- To know what a prototype is
- To know that giving reasons for improvements makes them more convincing

**Vocabulary:** intended consumer, suitability, improvement, prototype, reasons

### Cooking

### Design

- To know the properties of selected ingredients
- To know what a label is and why it is useful
- To know why a designer adds explanation/detail to a label
- To understand what a product is
- To understand why a design criteria is used
- To know why a hygienic and safe environment is important

**Vocabulary:** properties, materials, label, product, design criteria, safe, hygienic

### Make

- To know how to safely and hygienically prepare ingredients
- To know that different utensils have different uses
- To know the terms, cut, peel, grate
- To know what measuring is and why it is important
- To know what a recipe is and why it is used
- To know that some ingredients are healthier than others
- To know that temperature and cooking time can be controlled for different results
- To know some ways of measuring ingredients e.g. cups, scales

### Evaluate

Through discussion, peer assessment and in writing:

- Can explain what went well and what could be improved
- Can reflect on the suitability of the product for the intended consumer
- Improve designs and products giving reasons for choices

- To know where food comes from where food comes from: plants or animals
- To know that food can be farmed, grown elsewhere (e.g. home) or caught
- To know food categories
- To know that everyone should eat at least 5 portions of fruit and vegetables a day
- To know the difference between savoury and sweet
- To know that there are different types of heat source

**Vocabulary:** safety, hygiene, prepare, ingredients, cut, peel, grate, measure, plants, animals, farmed, grown, caught, categories, fruit, vegetables, cups, scales, savoury, sweet, heat source, utensil, recipe, healthier, temperature, controlled

### Evaluate

- To know what an intended consumer is
- To know what suitability is
- To know what improvement means
- To know what a prototype is
- To know that giving reasons for improvements makes them more convincing

**Vocabulary:** intended consumer, suitability, improvement, prototype, reasons



## Textiles

### Design

- Can select appropriate materials in relation to their properties
- Can draw and label (with added explanation and detail) what their intended product will look like, now including measurements and alternate views
- Can design a product according to a class created three or four point design criteria

### Make

- Join textiles using backstitch with reference to running stitch
- Select the most appropriate techniques to decorate textiles
- Begin to allow for seam allowance
- Apply appropriate cutting and shaping techniques that include cuts within the parameter of the material (such as slots or cut outs)

## Textiles

### Design

- To know the properties of selected materials
- To know what a label is and why it is useful
- To know why a design should include measurements
- To know why a design should include alternate views
- To know why a designer adds explanation/detail to a label
- To understand what a product is
- To understand the use of a design criteria

**Vocabulary:** properties, materials, label, product, design criteria, explanation, detail, measurements, alternate views

### Make

- To know what seam allowance is and why it is used
- To know what a template is and why it is useful
- To know what a running stitch is
- To know what back stitch is
- To know some cutting and shaping techniques
- To know why a designer might colour or decorate a product

**Vocabulary:** seam allowance, template, running stitch, colour, decorate, cutting, shaping

	<p><b>Evaluate</b>  Through discussion, peer assessment and in writing:  Can explain what went well and what could be improved  Can reflect on the suitability of the product for the intended consumer  Improve designs and products giving reasons for choices</p>	<p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>● To know what an intended consumer is</li> <li>● To know what suitability is</li> <li>● To know what improvement means</li> <li>● To know what a prototype is</li> <li>● To know that giving reasons for improvements makes them more convincing</li> </ul> <p><b>Vocabulary:</b> intended consumer, suitability, improvement, prototype, reasons</p>
Y5	<p><b><u>Construction</u></b></p> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>● Can select appropriate materials in relation to their properties</li> <li>● Can draw and label (with added explanation and reasoning) what their intended product will look like, now including measurements and alternate views</li> <li>● Can design a product according to an independently created design criteria</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>● Develop a range of practical skills to create products (such as cutting, drilling, screwing, nailing, gluing, filling and sanding)</li> <li>● Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape)</li> <li>● Show an understanding of the qualities of materials to choose appropriate tools to cut and shape</li> <li>● Convert rotary motion to linear using cams</li> </ul>	<p><b><u>Construction</u></b></p> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>● To know the properties of certain materials</li> <li>● To know what a label is and why it is useful</li> <li>● To know why a designer adds explanation/detail to a label</li> <li>● To know why a design should include measurements</li> <li>● To know why a design should include alternate views</li> <li>● To understand what a product is</li> <li>● To understand why a design criteria is used</li> </ul> <p><b>Vocabulary:</b> properties, materials, label, product, design criteria, explanation, detail, measurements, alternate views</p> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>● To know a range of practical skills: cutting, drilling, screwing, nailing, gluing, filling and sanding</li> <li>● To know why cutting with precision is important</li> <li>● To know some tools for finishing a product</li> <li>● To know that a cam converts rotary motion to linear motion</li> <li>● To know a number of electrical components: LEDs, resistors, transistors, chips</li> </ul>

- Create circuits using electronic kits that employ a number of components (such as LEDs, resistors, transistors and chips)
- Use innovative combinations of electronics and mechanics in product design

### Evaluate

Through discussion, peer assessment and in writing:

- Can explain what went well and what could be improved
- Can reflect on the suitability of the product for the intended consumer
- Improve designs and products giving reasons for choices.
- Evaluate the design of projects and suggest improvements to the user experience

**Cooking:** Cooking should centre around health and nutrition and should be focusing on predominantly savoury dishes using a range of cooking techniques

### Design

- Can make suitable choices about the storage and handling of ingredients
- Can select appropriate ingredients in relation to their properties
- Can draw and label (with added explanation and reasoning) what their intended product will look like
- Can design a product according to an independently created design criteria

### Make

- Measure accurately and calculate ratios of ingredients to scale up or down from a recipe
- Demonstrate a range of baking and cooking techniques
- Follow given recipes, including healthy seasonal ingredients, methods, cooking times and temperatures

**Vocabulary:** materials, safety, tools, card, scissors, measure, centimetre, cut, shape, technique, tear, fold, curl, bend, join, glue, hinge, combine, strengthen, prototype, reusable resources, lever, slider, axles, wheels, repair, transference, forces, winding mechanism, pulley, gear, fault, battery, tools, circuit, series, parallel, drill, screw, nail, file, sand, cam, rotary motion, linear motion, components, LEDs, resistors, transistors, chips

### Evaluate

- To know what an intended consumer is
- To know what suitability is
- To know what improvement means
- To know what a prototype is
- To know that giving reasons for improvements makes them more convincing
- To know what a user experience is

**Vocabulary:** intended consumer, suitability, improvement, prototype, reasons, user experience

### Cooking

### Design

- To know the properties of selected ingredients
- To know how to store and handle ingredients
- To know what a label is and why it is useful
- To know why a designer adds explanation/detail to a label
- To understand what a product is
- To understand why a design criteria is used
- To know why a hygienic and safe environment is important

**Vocabulary:** properties, materials, label, product, design criteria, safe, hygienic, store, handle

### Make

- To know how to safely and hygienically prepare ingredients
- To know that different utensils have different uses
- To know the terms, cut, peel, grate
- To know what measuring is and why it is important
- To know what a recipe is and why it is used

- Apply the principles of a healthy and varied diet

**Evaluate**

Through discussion, peer assessment and in writing:

- Can explain what went well and what could be improved
- Can reflect on the suitability of the product for the intended consumer
- Improve designs and products giving reasons for choices
- Evaluate the design of projects and suggest improvements to the user experience
- Refine given recipes and evaluate ways that it can be improved

- To know that some ingredients are healthier than others
- To know that temperature and cooking time can be controlled for different results
- To know some ways of measuring ingredients e.g. cups, scales
- To know how to use ratios in measuring ingredients
- To know different baking and cooking techniques: roast, fry etc.
- To know where food comes from where food comes from: plants or animals
- To know that food can be farmed, grown elsewhere (e.g. home) or caught
- To know food categories
- To know what a varied diet is
- To know the difference between savoury and sweet
- To know that there are different types of heat source

**Vocabulary:** safety, hygiene, prepare, ingredients, cut, peel, grate, measure, plants, animals, farmed, grown, caught, categories, fruit, vegetables, cups, scales, savoury, sweet, heat source, utensil, recipe, healthier, temperature, controlled

**Evaluate**

- To know what an intended consumer is
- To know what suitability is
- To know what improvement means
- To know what a prototype is
- To know that giving reasons for improvements makes them more convincing
- To know what a user experience is

**Vocabulary:** intended consumer, suitability, improvement, prototype, reasons, user experience

## Textiles

### Design

- Can select appropriate materials in relation to their properties
- Can draw and label (with added explanation and reasoning) what their intended product will look like, now including measurements and alternate views
- Can design a product according to an independently created design criteria

### Make

- Create objects (such as a cushion) that employ a seam allowance
- Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration and blanket stitch for decorative purposes)

## Textiles

### Design

- To know the properties of selected materials
- To know what a label is and why it is useful
- To know why a design should include measurements
- To know why a design should include alternate views
- To know why a designer adds explanation/detail to a label
- To understand what a product is
- To understand the use of a design criteria

**Vocabulary:** properties, materials, label, product, design criteria, explanation, detail, measurements, alternate views

### Make

- To know what seam allowance is and why it is used
- To know what a template is and why it is useful
- To know what a running stitch is
- To know what back stitch is
- To know what blanket stitch is

	<ul style="list-style-type: none"> <li>● Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as soft decoration for comfort on a cushion)</li> </ul> <p><b>Evaluate</b> Through discussion, peer assessment and in writing:</p> <ul style="list-style-type: none"> <li>● Can explain what went well and what could be improved.</li> <li>● Can reflect on the suitability of the product for the intended consumer</li> <li>● Improve designs and products giving reasons for choices.</li> <li>● Evaluate the design of projects and suggest improvements to the user experience</li> </ul>	<ul style="list-style-type: none"> <li>● To know some cutting and shaping techniques</li> <li>● To know why a designer might colour or decorate a product</li> </ul> <p><b>Vocabulary:</b> seam allowance, template, running stitch, colour, decorate, cutting, shaping, blanket stitch</p> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>● To know what an intended consumer is</li> <li>● To know what suitability is</li> <li>● To know what improvement means</li> <li>● To know what a prototype is</li> <li>● To know that giving reasons for improvements makes them more convincing</li> <li>● To know what a user experience is</li> </ul> <p><b>Vocabulary:</b> intended consumer, suitability, improvement, prototype, reasons, user experience</p>
Y6	<p><b><u>Construction</u></b></p> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>● Can select appropriate materials in relation to their properties</li> <li>● Can draw and label (with added explanation and reasoning) what their intended product will look like, now including measurements, alternate views and cross sectional and exploded diagrams</li> <li>● Can design a product according to an independently created design criteria</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>● Develop a range of practical skills to create products (such as</li> </ul>	<p><b><u>Construction</u></b></p> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>● To know the properties of certain materials</li> <li>● To know what a label is and why it is useful</li> <li>● To know why a designer adds explanation/detail to a label</li> <li>● To know why a design should include measurements</li> <li>● To know why a design should include alternate views</li> <li>● To know what a cross-sectional diagram is</li> <li>● To know what an exploded diagram is</li> <li>● To understand what a product is</li> <li>● To understand why a design criteria is used</li> </ul> <p><b>Vocabulary:</b> properties, materials, label, product, design criteria, explanation, detail, measurements, alternate views, cross-sectional diagram, exploded diagram</p> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>● To know a range of practical skills: cutting, drilling, screwing,</li> </ul>

- cutting, drilling, screwing, nailing, gluing, filling and sanding)
- Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape)
- Show an understanding of the qualities of materials to choose appropriate tools to cut and shape
- Convert rotary motion to linear using cams
- Create circuits using electronic kits that employ a number of components (such as LEDs, resistors, transistors and chips)
- Use innovative combinations of electronics and mechanics in product design

### Evaluate

Through discussion, peer assessment and in writing:

- Can explain what went well and what could be improved
- Can reflect on the suitability of the product for the intended consumer
- Improve designs and products giving reasons for choices
- Evaluate the design of projects and suggest improvements to the user experience

**Cooking:** Cooking should centre around health and nutrition and should be focusing on predominantly savoury dishes using a range of cooking techniques.

### Design

- Can select appropriate materials in relation to their properties
- Can draw and label (with added explanation and reasoning) what their intended product will look like
- Can design a product according to an independently created design criteria

### Make

- Create and refine recipes, including healthy seasonal

- nailing, gluing, filing and sanding
- To know why cutting with precision is important
- To know some tools for finishing a product
- To know that a cam converts rotary motion to linear motion
- To know a number of electrical components: LEDs, resistors, transistors, chips

**Vocabulary:** materials, safety, tools, card, scissors, measure, centimetre, cut, shape, technique, tear, fold, curl, bend, join, glue, hinge, combine, strengthen, prototype, reusable resources, lever, slider, axles, wheels, repair, transference, forces, winding mechanism, pulley, gear, fault, battery, tools, circuit, series, parallel, drill, screw, nail, file, sand, cam, rotary motion, linear motion, components, LEDs, resistors, transistors, chips

### Evaluate

- To know what an intended consumer is
- To know what suitability is
- To know what improvement means
- To know what a prototype is
- To know that giving reasons for improvements makes them more convincing
- To know what a user experience is

**Vocabulary:** intended consumer, suitability, improvement, prototype, reasons, user experience

### Cooking

### Design

- To know the properties of selected ingredients
- To know how to store and handle ingredients
- To know what a label is and why it is useful
- To know why a designer adds explanation/detail to a label
- To understand what a product is
- To understand why a design criteria is used
- To know why a hygienic and safe environment is important

**Vocabulary:** properties, materials, label, product, design criteria, safe, hygienic, store, handle

### Make

- To know how to safely and hygienically prepare ingredients

- ingredients, methods, cooking times and temperatures
- Measure accurately and calculate ratios of ingredients to scale up or down from a recipe
- Demonstrate a range of baking and cooking techniques
- Follow given recipes, including healthy seasonal ingredients, methods, cooking times and temperatures
- Apply the principles of a healthy and varied diet

### Evaluate

Through discussion, peer assessment and in writing:

- Can explain what went well and what could be improved
- Can reflect on the suitability of the product for the intended consumer
- Improve designs and products giving reasons for choices
- Evaluate the design of projects and suggest improvements to the user experience

- To know that different utensils have different uses
- To know the terms, cut, peel, grate
- To know what measuring is and why it is important
- To know what a recipe is and why it is used
- To know that some ingredients are healthier than others
- To know that temperature and cooking time can be controlled for different results
- To know some ways of measuring ingredients e.g. cups, scales
- To know how to use ratios in measuring ingredients
- To know different baking and cooking techniques: roast, fry etc.
- To know where food comes from where food comes from: plants or animals
- To know that food can be farmed, grown elsewhere (e.g. home) or caught
- To know food categories
- To know what a varied diet is
- To know the difference between savoury and sweet
- To know that there are different types of heat source

**Vocabulary:** safety, hygiene, prepare, ingredients, cut, peel, grate, measure, plants, animals, farmed, grown, caught, categories, fruit, vegetables, cups, scales, savoury, sweet, heat source, utensil, recipe, healthier, temperature, controlled

### Evaluate

- To know what an intended consumer is
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**Vocabulary:** intended consumer, suitability, improvement, prototype, reasons, user experience



## Textiles

### Design

- Can select appropriate materials in relation to their properties
- Can draw and label (with added explanation and reasoning) what their intended product will look like, now including measurements, alternate views and cross sectional and exploded diagrams
- Can design a product according to an independently created design criteria

## Textiles

### Design

- To know the properties of selected materials
- To know what a label is and why it is useful
- To know why a design should include measurements
- To know why a design should include alternate views
- To know what a cross-sectional diagram is
- To know what an exploded diagram is
- To know why a designer adds explanation/detail to a label
- To understand what a product is
- To understand the use of a design criteria

**Vocabulary:** properties, materials, label, product, design criteria, explanation, detail, measurements, alternate views, cross-sectional diagram, exploded diagram

### Make

- Create objects (such as a cushion) that employ a seam allowance.
- Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration and blanket stitch for decorative purposes)
- Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as soft decoration for comfort on a cushion)

### Evaluate

Through discussion, peer assessment and in writing:

- Can explain what went well and what could be improved
- Can reflect on the suitability of the product for the intended consumer
- Improve designs and products giving reasons for choices
- Evaluate the design of projects and suggest improvements to the user experience

(Dyson resource boxes <https://www.jamesdysonfoundation.co.uk/> )

### Make

- To know what seam allowance is and why it is used
- To know what a template is and why it is useful
- To know what a running stitch is
- To know what back stitch is
- To know what blanket stitch is
- To know some cutting and shaping techniques
- To know why a designer might colour or decorate a product

**Vocabulary:** seam allowance, template, running stitch, colour, decorate, cutting, shaping, blanket stitch

### Evaluate

- To know what an intended consumer is
- To know what suitability is
- To know what improvement means
- To know what a prototype is
- To know that giving reasons for improvements makes them more convincing
- To know what a user experience is

**Vocabulary:** intended consumer, suitability, improvement, prototype, reasons, user experience