SUBJECT: Design & Technology (V2)

Our Design and Technology curriculum has been created in a way to allow our pupils to be inspired by past and present real world professionals, whilst enabling an environment that allows children to flourish and not fail. Through design and prototypes, our children will improve and adapt their use of a variety of mediums in order to achieve and progress their skills and understanding in construction, textiles and cooking. Our children will understand the importance of a safe and hygienic working environment to create their product by considering their own well-being and safety but also that of the target consumer.

In the EYFS and KS1, Design and Technology will equip our children with the skills and knowledge of basic planning, creating and critiquing 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, sometimes working in groups in order to develop a sense of community.

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. The children will show resilience through peer and self critique of their prototype and listen to constructive criticism in order to improve their final product. 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.

The knowledge, skills and vocabulary are organised incrementally through the school. Teachers make knowledge and skills in DT accessible to all children through a range of techniques and approaches. We want all children to have a positive approach to DT, show resilience after criticism and a sense of achievement of their final product.

	Skills	Knowledge
N	**Construction**	**Construction**

	• Can use tools such as hole punches, appropriate scissors, small hammers in a variety of ways. • Can use equipment and tools safely e.g. carrying scissors safely. • Can use various construction materials e.g. junk modelling. • Can construct, stacking blocks vertically and horizontally, making enclosures and creating spaces. • Can join construction pieces together to build and balance using glue, fasteners, paper clips and tape. **Cooking** • Can use equipment such as knives, graters, mixing bowl and spoon safely. • Can follow simple instructions to help make a basic recipe. • Can describe the texture of things e.g. hard, crunchy, soft, runny. • Can discuss and sort between healthy and unhealthy food choices. **Textiles** • Can describe the texture of things e.g. soft, fluffy, rough, smooth. • Can use scissors, glue and materials to create a collage. • Can use a thread to join resources e.g. beads.	• Understands that glue, fasteners, paper clips and tape can be used to join materials. • Understands that equipment and tools have to be used safely • Understands how to construct, stacking blocks vertically and horizontally, stickle bricks and duplo making enclosures and creating spaces. • Realises hole punches, appropriate scissors, small hammers can be used to manipulate materials. **Cooking** • Understands how to use equipment such as knives, graters, mixing bowl and spoon safely. • Understands that heating and cooling and combining changes materials. • Understands the difference between healthy food and 'treats'. **Textiles** • Understands different textures and how to describe them. • Understands how scissors, glue and materials can be used to create a collage. • Understands that thread can be used to join resources e.g. beads.
R	**Construction** • Can use tools such as hole punches, appropriate scissors, small hammers in a variety of ways. • Can use, store and transport equipment and tools safely e.g. carrying scissors, storing saws and drills. • Can use various construction materials and adapt work where necessary e.g. junk modelling and woodwork • Can construct, stacking blocks vertically and horizontally and can talk about their creation. • Can join construction pieces together to build and balance using glue, fasteners, paper clips, tape, nails, wood glue and stapes. **Cooking** • Can use equipment such as knives, peeler, graters, mixing bowl and spoon safely. • Can follow simple instructions to help make a basic recipe.	**Construction** • Understands that glue, fasteners, paper clips tape, treasury tags, nails, wood glue and staples can be used to join materials. • Understands that equipment and tools have to be used, transported and stored safely e.g. saws, hammers, nails, scissors. • Understands how to construct using Lego, Knex and Brio as well as stacking blocks vertically and horizontally. • Realises hole punches, appropriate scissors, hammers, saw, hand drills can be used to manipulate materials. **Cooking** • Understands how to use equipment such as knives, peeler, graters, mixing bowl and spoon safely. • Understands that heating and cooling and combining changes materials and is able to discuss the changes.

	• Can store food and drink correctly. • Can describe the texture of things e.g. hard, crunchy, soft, runny. • Can discuss and sort between healthy and unhealthy food choices. **Textiles** • Can describe the texture of things e.g. soft, fluffy, rough, smooth. • Can use scissors, glue and materials to create a collage. • Can use a needle and thread to join materials and make a simple stitch.	• Understands why certain food and drinks need to be stored correctly. • Understands the difference between healthy food and unhealthy food and to explain why. **Textiles** • Understands different textures and how to describe them. • Understands how scissors, glue and materials can be used to create a collage. • Understands that needle and thread can be used to join materials.
Y1	**Construction** 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. **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** • Cutting materials safely using tools provided e.g. card and scissors • Measure and mark out to the nearest centimeter • Use a range of cutting and shaping techniques e.g. tearing, cutting, folding, curling and bending • Can use a range of joining techniques e.g. gluing, hinges and combining materials to strengthen • Can build a prototype from reusable resources e.g. Lego • Can create a simple moving part using levers or sliders.	**Construction** **Design** • To know the properties of certain materials • 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 **Vocabulary:** properties, materials, label, product, design criteria **Make** • To know what cutting and shaping is • To know what joining is • To know how to cut safely and efficiently • To know what measuring is and why it is important • To know what reusable resources are • To know what a prototype is • To know what levers and sliders 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,

	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	slider **Evaluate** • To know what an intended consumer is • To know what suitability is • To know what improvement means **Vocabulary:** intended consumer, suitability, improvement
	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	**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

	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 **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:** 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 **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	**Construction:** 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	**Construction**

	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. **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** • Cutting materials safely using tools provided e.g. card and scissors • Measure and mark out to the nearest centimeter • Use a range of cutting and shaping techniques e.g. tearing, cutting, folding, curling and bending • Can use a range of joining techniques e.g. gluing, hinges and combining materials to strengthen • Can build a prototype from reusable resources e.g. Lego • Can create a simple moving part using levers, sliders, axles and wheels **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	**Design** • To know the properties of certain materials • 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 **Vocabulary:** properties, materials, label, product, design criteria **Make** • To know what cutting and shaping is • To know what joining is • To know how to cut safely and efficiently • To know what measuring is and why it is important • To know what reusable resources are • To know what a prototype is • To know what levers and sliders 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 **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

	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 **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	**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, scaless • 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 **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: 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	**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 • o 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	**Construction** **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	**Construction** **Design** • To know the properties of certain materials • 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 **Vocabulary:** properties, materials, label, product, design criteria, explanation, detail

	Make • Choose suitable techniques to construct products or to repair items • Strengthen materials using suitable techniques • Use knowledge of the transference of forces to choose appropriate mechanisms for a product (e.g. levers , winding mechanisms, pulleys and gears) • Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage) • Cut materials safely and accurately by selecting appropriate tools • Measure and mark out to the nearest millimeter • Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs) • Select appropriate joining techniques/resources **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)	**Make** • To know some repairing techniques • To know about the transference of forces: leavers, winding mechanisms, pulleys, gears • To know what a fault is • To know what cutting and shaping is • To know what joining is • To know how to cut safely and efficiently • To know what measuring is and why it is important • To know what reusable resources are • To know what a prototype is • To know what levers and sliders 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 **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

	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** 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 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, scaless • 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

	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	**Vocabulary:** intended consumer, suitability, improvement, prototype, reasons **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 more convincing **Vocabulary:** intended consumer, suitability, improvement, prototype, reasons
Y4	**Construction** **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	**Construction** **Design** • To know the properties of certain materials • To know what a label is and why it is useful • To know why a designer adds explanation/detail to a label • To know why a design should include measurements • To know why a design should include alternate views

	four point design criteria **Make** • Choose suitable techniques to construct products or to repair items • Strengthen materials using suitable techniques • Use knowledge of the transference of forces to choose appropriate mechanisms for a product (e.g. levers , winding mechanisms, pulleys and gears) • Cut materials safely and accurately by selecting appropriate tools • Measure and mark out to the nearest millimeter • Apply appropriate cutting and shaping techniques that include cuts within the parameter of the material (such as slots or cut outs) • Select appropriate joining techniques/resources • 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.	• To understand what a product is • To understand why a design criteria is used **Vocabulary:** properties, materials, label, product, design criteria, explanation, detail, measurements, alternate views **Make** • To know some repairing techniques • To know about the transference of forces: leavers, winding mechanisms, pulleys, gears • To know what a fault is • To know what cutting and shaping is • To know what joining is • To know how to cut safely and efficiently • To know what measuring is and why it is important • To know what reusable resources are • To know what a prototype is • To know what levers and sliders are • To know that different tools perform different tasks e.g. saw, hammer etc. • 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**

	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) **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	• 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, scaless • 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

	consumer • Improve designs and products giving reasons for choices **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) **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	more convincing **Vocabulary:** intended consumer, suitability, improvement, prototype, reasons **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 **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
Y5	**Construction**	**Construction**

	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** • Develop a range of practical skills to create products (such as 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, resirstors, 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	**Design** • To know the properties of certain materials • To know what a label is and why it is useful • To know why a designer adds explanation/detail to a label • To know why a design should include measurements • To know why a design should include alternate views • To understand what a product is • To understand why a design criteria is used **Vocabulary:** properties, materials, label, product, design criteria, explanation, detail, measurements, alternate views **Make** • To know a range of practical skills: cutting, drilling, screwing, 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: 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 • Apply the principles of a healthy and varied diet	**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 • 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,

	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 **<u>Textiles</u>** **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) • 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)	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 **<u>Textiles</u>** **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 • 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 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	**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
Y6	**Construction** **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 **Make** • Develop a range of practical skills to create products (such as 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, resirstors, transistors and chips) • Use innovative combinations of electronics and mechanics in product design	**Construction** **Design** • To know the properties of certain materials • To know what a label is and why it is useful • To know why a designer adds explanation/detail to a label • 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 understand what a product is • To understand why a design criteria is used **Vocabulary:** properties, materials, label, product, design criteria, explanation, detail, measurements, alternate views, cross-sectional diagram, exploded diagram **Make** • To know a range of practical skills: cutting, drilling, screwing, 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

	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 **<u>Cooking:</u>** 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 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	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 **<u>Cooking</u>** **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 • 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

	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 **<u>Textiles</u>** **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	• 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 **<u>Textiles</u>** **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

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