D&T Learning Sequence Document – Year 5/6 2023 2024

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| Term | Autumn 1 | Spring 1 | Spring 2 |
| Topic | Fallen Fields | Allotment | Hola Mexico |
| DT NC Focus: | In each sequence of lessons children will be taught:**Design Make (Tools/Equipment/Materials/Components) Technical Knowledge Evaluate Cooking and Nutrition** |
| National Curriculum KS2 | Design * use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
* generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make  | Make* select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
* select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities
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 | Evaluate* investigate and analyse a range of existing products
* evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
* understand how key events and individuals in design and technology have helped shape the world
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 | Technical knowledge* apply their understanding of how to strengthen, stiffen and reinforce more complex structures
* understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
* understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
* apply their understanding of computing to program, monitor and control their products.
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|  | Each term children will work through the design process as follows:Analyse existing products Agree design criteria Make using technical knowledge and skills Evaluate product  |
| Design Task | Textiles: war time waistcoat  | Structures: constructing playground equipment | Digital World: animal monitoring  |
| Prior learning:  | * To understand that it is important to design clothing with the client/target customer in mind.
 | To know that structures can be strengthened by manipulating materials and shapes. | * To understand the needs of a particular animal.
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| Sequence of learning: ResearchDesign CriteriaDesignMake*Tool**Equipment* *Materials**Components*Technical KnowledgeEvaluate | Lesson 1: Waistcoat designTo design a waistcoatLesson 2: Preparing fabricTo mark and cut fabric according to a designLesson 3: Assembling my waistcoatTo assemble a waistcoatLesson 4: Decorating my waistcoatTo decorate your waistcoat | Lesson 1: Design a new playgroundTo design a playground with a variety of structuresLesson 2: Building structuresTo build a range of structuresLesson 3: Perfecting structuresTo improve and add detail to structuresLesson 4: Playground landscapesTo create the surrounding landscape | Lesson 1: Monitoring devicesTo carry out research to develop design criteriaLesson 2: Programming an animal monitorTo write a program to monitor the ambient temperature including an alertLesson 3: PlasticTo generate creative and unique micro:bit case, stand and/or housing ideasLesson 4: 3D CAD skillsTo learn about and practise 3D CAD skills |
| Vocabulary | Annotate decorate design criteria fabric target customer waistcoat waterproof | Apparatus design criteria equipment playground landscape features cladding  | monitoring device development inventory vivarium programming loop programming comment alert ambient Boolean duplicate copy value variable model sustainability plastic microplastics decompose plastic pollution man made synthetic |
| Term | Autumn 1 | Spring 1 | Spring 2 |
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| DT NC FocusCooking and nutrition | **Cooking and Nutrition**Each term the children will have opportunities to: * understand and apply the principles of a healthy and varied diet
* prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
* understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

These aspects will be interleaved throughout the 2 year rolling programme. |
| Cooking and nutrition task | KAPOW – what could be healthier  | Home grown healthy feast | Mayan Feast |
| Prior Learning | <https://www.bbc.co.uk/bitesize/topics/z7x78xs/articles/zppvv4j>Understand the principles of a healthy diet.How to adapt recipes to make them healthierhttps://www.foodafactoflife.org.uk/7-11-years/ | <https://www.bbc.co.uk/bitesize/topics/z7x78xs/articles/zppvv4j>Understand the principles of a healthy diet.https://www.foodafactoflife.org.uk/7-11-years/<https://eatseasonably.co.uk/>Understand the benefits of eating seasonally produced food.Grow a variety of fruit and vegetables using designs.<https://maestro.cornerstoneseducation.co.uk/project/allotment/lesson/2184> | <https://www.bbc.co.uk/bitesize/topics/z7x78xs/articles/zppvv4j>Understand the principles of a healthy diet.https://www.foodafactoflife.org.uk/7-11-years/<https://www.globotreks.com/destinations/belize/making-chocolate-like-the-mayas-used-to/>Understand how chocolate is grown and processed.https://maestro.cornerstoneseducation.co.uk/project/hola-mexico/lesson/ |
| Cooking and nutritionunderstand and apply the principles of a healthy and varied diet prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. | Lesson 1: From farm to forkTo understand where food comes fromLesson 2: What does healthy look like?To understand the term ‘healthy’Lesson 3: Adapting and improving a recipeTo adapt a traditional recipeLesson 4: Mamma mia! What a tasty, healthy bolognese!To complete a food product | Lesson 1Research recipes for all grown ingredients.Choose recipes and discuss other ingredients and link to understanding of healthy, varied diets, seasonality and where ingredients are grown, rear and processed.Lesson 2 Plan, prepare, make and taste a ‘healthy’ uncooked and cooked dishes using their home grown products. Evaluate in terms of taste, appearance and nutrition. | Lesson 1Try a variety of ‘Mexican foods’ and evaluate in terms of taste and nutrition.Based on evaluation choose recipes to for cooked and uncooked Mexican foods for a Mexican feast.Lesson 2Plan, prepare, make and taste a variety of uncooked and cooked dishes, explaining the origin of the main ingredients. Evaluate in terms of taste, appearance and nutrition. |
| Vocabulary:  | Beef reared processed ethical diet ingredients supermarket farm balanced organic | Balanced, protein carbohydrate, food groups, fat saturated unsaturated energy calories vitamins minerals nutrition empty calories unprocessed | Balanced, protein carbohydrate, food groups, fat saturated unsaturated energy calories vitamins minerals nutrition empty calories  |