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

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | | | 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 | | 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. | |
|  | 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. | | |
| Sequence of learning:  Research  Design Criteria  Design  Make  *Tool*  *Equipment*  *Materials*  *Components*  Technical Knowledge  Evaluate | 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 |
| Topic | Fallen Fields | | | Allotment | | | | Hola Mexico |
| DT NC Focus  Cooking 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 healthier  https://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 nutrition  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. | 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 1  Research 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 1  Try 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 2  Plan, 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 | | |