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| **Structures: Constructing a Windmill (Y1)** | | **Mechanisms: Wheels & Axels (Y1)** |
| **Design** | * Learning the importance of a clear design criteria. * Including individual preferences and requirements in a design. | * Designing a vehicle that includes wheels, axles and axle holders, that when combined, will allow the wheels to move. * Creating clearly labelled drawings that illustrate movement. |
| **Make** | * Making stable structures from card, tape and glue . * Learning how to turn 2D nets into 3D structures. * Following instructions to cut and assemble the supporting structure of a windmill. * Making functioning turbines and axles which are assembled into a main supporting structure. | * Adapting mechanisms, when:   + they do not work as they should.   + to ﬁt their vehicle design.   + to improve how they work after testing their vehicle. |
| **Evaluate** | * Evaluating a windmill according to the design criteria, testing whether the structure is strong and stable and altering it if it isn’t * Suggest points for improvements. | * Testing wheel and axle mechanisms, identifying what stops the wheels from turning, and recognising that a wheel needs an axle in order to move. |
| **Technical** | * To understand that the shape of materials can be changed to improve the strength and stiffness of structures. * To understand that cylinders are a strong type of structure (e.g. the main shape used for windmills and lighthouses). * To understand that axles are used in structures and mechanisms to make parts turn in a circle. * To begin to understand that different structures are used for different purposes. * To know that a structure is something that has been made and put together. | * To know that wheels need to be round to rotate and move. * To understand that for a wheel to move it must be attached to a rotating axle. * To know that an axle moves within an axle holder which is ﬁxed to the vehicle or toy. * To know that the frame of a vehicle (chassis) needs to be balanced. |
| **Additional** | * To know that a client is the person I am designing for. * To know that design criteria is a list of points to ensure the product meets the clients needs and wants. * To know that a windmill harnesses the power of wind for a purpose like grinding grain, pumping water or generating electricity. * To know that windmill turbines use wind to turn and make the machines inside work. * To know that a windmill is a structure with sails that are moved by the wind. * To know the three main parts of a windmill are the turbine, axle and structure. | * To know some real-life items that use wheels such as wheelbarrows, hamster wheels and vehicles. |

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|  | **Food & Nutrition: Fruit & Veg (Y1)** | **Food & Nutrition: Balanced Diet (Y2)** |
| **Design** | * Designing smoothie carton packaging by-hand or on ICT software. | * Designing a healthy wrap based on a food combination which works well together. |
| **Make** | * Chopping fruit and vegetables safely to make a smoothie. * Identifying if a food is a fruit or a vegetable. * Learning where and how fruits and vegetables grow. | * Slicing food safely using the bridge or claw grip. * Constructing a wrap that meets a design brief. |
| **Evaluate** | * Tasting and evaluating different food combinations. * Describing appearance, smell and taste. * Suggesting information to be included on packaging. | * Describing the taste, texture and smell of fruit and vegetables. * Taste testing food combinations and ﬁnal products. * Describing the information that should be included on a label. * Evaluating which grip was most effective. |
| **Cooking and nutrition** | * Understanding the difference between fruits and vegetables. * To understand that some foods typically known as vegetables are actually fruits (e.g. cucumber). * To know that a blender is a machine which mixes ingredients together into a smooth liquid. * To know that a fruit has seeds and a vegetable does not. * To know that fruits grow on trees or vines. * To know that vegetables can grow either above or below ground. * To know that vegetables can come from different parts of the plant (e.g. roots: potatoes, leaves: lettuce, fruit: cucumber). | * To know that ‘diet’ means the food and drink that a person or animal usually eats. * To understand what makes a balanced diet. * To know where to ﬁnd the nutritional information on packaging. * To know that the ﬁve main food groups are: Carbohydrates, fruits and vegetables, protein, dairy and foods high in fat and sugar. * To understand that I should eat a range of different foods from each food group, and roughly how much of each food group. * To know that nutrients are substances in food that all living things need to make energy, grow and develop. * To know that ‘ingredients’ means the items in a mixture or recipe. * To know that I should only have a maximum of ﬁve teaspoons of sugar a day to stay healthy. * To know that many food and drinks we do not expect to contain sugar do; we call these ‘hidden sugars’. |

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|  | **Textiles: Puppets (Y1)** | **Textile: Pouches (Y2)** |
| **Design** | * Using a template to create a design for a puppet. | * Designing a pouch. |
| **Make** | * Cutting fabric neatly with scissors. * Using joining methods to decorate a puppet. * Sequencing the steps taken during construction. | * Selecting and cutting fabrics for sewing. * Decorating a pouch using fabric glue or running stitch. * Threading a needle. * Sewing running stitch, with evenly spaced, neat, even stitches to join fabric. * Neatly pinning and cutting fabric using a template. |
| **Evaluate** | * Reﬂecting on a ﬁnished product, explaining likes and dislikes. | * Troubleshooting scenarios posed by the teacher. * Evaluating the quality of the stitching on others’ work. * Discussing as a class the success of their stitching against the success criteria. * Identifying aspects of their peers’ work that they particularly like and explaining why. |
| **Cooking and nutrition** | * To know that ‘joining technique’ means connecting two pieces of material together. * To know that there are various temporary methods of joining fabric by using staples. glue or pins. * To understand that different techniques for joining materials can be used for different purposes. * To understand that a template (or fabric pattern) is used to cut out the same shape multiple times. * To know that drawing a design idea is useful to see how an idea will look. | * To know that sewing is a method of joining fabric. * To know that different stitches can be used when sewing. * To understand the importance of tying a knot after sewing the ﬁnal stitch. * To know that a thimble can be used to protect my ﬁngers when sewing. |