Whole School Progression Document:

Subject: DT

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|  | KS1 | Lower KS2 | Upper KS2 |
| Cooking and nutrition | N/A | **Design**  • Designing a recipe for a savoury tart.  **Make**  • Following the instructions within a recipe  • Tasting seasonal ingredients.  • Selecting seasonal ingredients.  • Peeling ingredients safely.  • Cutting safely with a vegetable knife.  **Evaluate**  • Establishing and using design criteria to help test and review dishes.  • Describing the benefits of seasonal fruits and vegetables and the impact on the environment.  • Suggesting points for improvement when making a seasonal tart. | **Design**  • Adapting a traditional recipe, understanding that the nutritional value of a recipe alters if you remove, substitute or add additional ingredients.  •Writing an amended method for a recipe to incorporate the relevant changes to ingredients.  • Designing appealing packaging to reflect a recipe.  • Researching existing recipes to inform ingredient choices.  **Make**  • Cutting and preparing vegetables safely.  • Using equipment safely, including knives, hot pans and hobs.  • Knowing how to avoid cross-contamination. • Following a step by step method carefully to make a recipe.  **Evaluate**  • Identifying the nutritional differences between different products and recipes. • Identifying and describing healthy benefits of food groups |
| Structures | **Design**  • Learning the importance of a clear design criteria.  • Including individual preferences and requirements in a design.  • Generating and communicating ideas using sketching and modelling.  • Learning about different types of structures, found in the natural world and in  everyday objects.  **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.  Making a structure according to design criteria.  • Creating joints and structures from paper/card and tape.  • Building a strong and stiff structure by folding paper  **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  Exploring the features of structures.  • Comparing the stability of different shapes.  • Testing the strength of own structures.  • Identifying the weakest part of a structure.  • Evaluating the strength, stiffness and stability of own structure | **Design**  • Designing a shelter with key features to appeal for a specific purpose.  • Drawing and labelling a shelter design using 2D shapes, labelling: -the 3D shapes that will create the features - materials needed and colours.  **Make**  • Constructing a range of 3D shapes using a range of resources.  • Creating special features for individual designs.  • Using specific joining techniques to bind structures.  **Evaluate**  • Evaluating own work and the work of others based on the aesthetic of the finished product and in comparison to the original design.  • Suggesting points for modification of the individual design | **Design**  • Designing a playground featuring a variety of different structures, giving careful consideration to how the structures will be used, considering effective and ineffective designs.  **Make**  • Building a range of play apparatus structures drawing upon new and prior knowledge of structures.  • Measuring, marking and cutting wood to create a range of structures.  • Using a range of materials to reinforce and add decoration to structures.  **Evaluate**  •Improving a design plan based on peer evaluation.  • Testing and adapting a design to improve it as it is developed.  • Identifying what makes a successful structure. |
| Mechanisms | **Design**  • Selecting a suitable linkage system to produce the desired motion.  • Designing a wheel.  • Creating a class design criteria for a moving monster.  • Designing a moving monster for a specific audience in accordance with a design  criteria.  **Make**  • Selecting materials according to their characteristics.  • Following a design brief  • Making linkages using card for levers and split pins for pivots.  • Experimenting with linkages adjusting the widths, lengths and thicknesses of card  used.  • Cutting and assembling components neatly.  **Evaluate**  • Evaluating different designs.  • Testing and adapting a design.  • Evaluating own designs against design criteria.  • Using peer feedback to modify a final design. | **Design**  • Designing a shape that reduces air resistance.  • Drawing a net to create a structure from.  • Choosing shapes that increase or decrease speed as a result of air resistance.  • Personalising a design.  **Make**  • Measuring, marking, cutting and assembling with increasing accuracy.  • Making a model based on a chosen design.  **Evaluate**  • Evaluating the speed of a final product based on: the effect of shape on speed and the accuracy of workmanship on performance. | **Design**  • Designing a pop-up book which uses a mixture of structures and mechanisms.  • Naming each mechanism, input and output accurately.  • Storyboarding ideas for a book.  **Make**  • Following a design brief to make a pop up book, neatly and with focus on accuracy.  • Making mechanisms and/or structures using sliders, pivots and folds to produce movement.  • Using layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result.  **Evaluate**  •Evaluating the work of others and receiving feedback on own work.  • Suggesting points for improvement |