



CONONLEY PRIMARY SCHOOL
Inspiring and Challenging Our Children

Design and Technology Progression document Cononley Primary School EYFS to Y6

(EYFS = Physical Development and Expressive Arts and Design)

Structures	EYFS (Physical Development and Expressive Arts and Design)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	Observe and talk about the features of structures/buildings around us. Notice what is the same /what is different.	Discuss design criteria for a structure (chair for baby bear)	Generate design ideas for a structure (baby bear's chair) through sketching and modelling	Draw and label 2D shapes and corresponding 3D shapes (that will make features of the castle)	Design a stable structure and select materials to make it aesthetically pleasing.	Create a stable frame structure with focus on triangulation	Give careful consideration to how the structures will be used considering effective and ineffective designs.
Make	Use glue, masking tape, and treasury tags to join.	Follow instructions, cut and assemble the structure	Make a structure according to design criteria	Create special features for individual designs	Create a design in accordance with a plan, selecting appropriate materials for the structure	Select appropriate tools and equipment. Identify where a structure needs reinforcement	Measure, mark and cut wood to create as structure

Evaluate	Suggest ways to make it better	Evaluating according to the design criteria, is it strong/stable? How can we improve it?	Evaluate the strength, stiffness and stability of their own structures. Suggesting points for improvements	Evaluate own work, suggesting points for modification of the original design.	Evaluate work, describing what characteristics of a design and Constuction made it most effective/ ineffective?	Suggest points for improvement for own designs. Identifying weakness and adapting and improving.	Improve a design plan based on peer evaluation. Testing and adapting a design to improve it.
Technical Skills / Knowledge	Talk about how a box structure is changed by adding other parts.	Learn that the shape of a structure can be changed to improve the strength and stiffness of structures. 2D to 3D	Know that shapes and materials can be manipulated to improve strength and stiffness	Identify suitable materials considering weight, compression, tension. Understand the difference between frame and shell structure.	Build on prior knowledge of net structures and implementing frame and shell structure knowledge.	Understand the terms: compression and tension. Find different ways to reinforce structures	Know that structures can be strengthened by manipulating materials and shapes and identify shell structures in everyday life.
Mechanisms	EYFS (Physical Development and Expressive Arts and Design)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	Look at and talk about existing books/toys/games/objects with moving parts. Notice what is the same /what is different.	Discuss design criteria for a moving monster	Generate design ideas for a moving monster in accordance with design criteria.	Design a toy which uses a pneumatic system Develop design criteria from a given brief	Personalise a design	Develop a design with a range of features, for example a mixture of structures and mechanisms, simple electric control features	Consider how mechanisms will be used considering effective and ineffective designs.
Make	Use split pins to make a moving part. Use card to make a simple slider	Follow a design that uses levers and sliders.	Experiment with linkages. Cut and assemble components neatly	Select materials due to their function and aesthetic characteristics	Measure, mark, cut and assemble with increased accuracy	Follow a design brief neatly with focus on accuracy and for an	Measure, mark and check the accuracy of the components

						aesthetically pleasing result.	
Evaluate	Suggest ways to make it better.	Test a finished product seeing whether it moves as planned. How can it be fixed?	Evaluate own design against design criteria. Test and adapt a design.	Use the view of others to improve designs. Suggest improvements, testing and modifying.	Evaluate the performance of a final product based on shape and accuracy of workmanship.	Evaluate the work of others and receiving feedback on own work, 'suggesting' points for improvement	Evaluate the work of others and receiving feedback on own work, 'applying' points of improvement.
Technical Skills / Knowledge	Learn that mechanisms make things move up, down, left, right	Identify whether a mechanism is a lever or slider (Vocabulary: up, down, left, right, vertical, horizontal.)	Know there is an input and an output in a mechanism. -Linkage is a system of levers that are connected by pivots	Know that mechanisms are a system of parts that work together to create motion	Know that kinetic energy is the energy that something (object, person) has by being in motion.	Know that input is the motion used to start a mechanism and output is the motion that happens as a result of starting the input	Explore types of motion and direction of motion. (Exploring cams shape and movement)

Electrical Systems	EYFS (Physical Development and Expressive Arts and Design)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	n/a	n/a	n/a	Develop design criteria from a given brief Identify a target audience	Personalise a design	Develop a design with a range of features, for example simple electric control features	Model ideas through prototypes

Make	n/a	n/a	n/a	Make, referring to the design criteria	Assemble according to the design and success criteria	Map out where different components will go	Tweak components to improve function and decorate to a high-quality finish.
Evaluate	n/a	n/a	n/a	Test against the original design criteria and justifying opinions	Test and evaluate the success of a final product and taking inspiration from the work of peers	Evaluate a completed product against the original design sheet and looking at modifications that can be made, and aesthetics.	Test own and others finished games, identifying what went well and making improvements.
Technical Skills / Knowledge	n/a	n/a	n/a	Understand what static electricity is and how it moves objects. And use static electricity to make objects move in a desired way.	Learning how electrical items work and understanding that a battery contains stored electricity and is a power source.	Learning the key components in a functioning circuit and know the difference between series and parallel circuits.	Understand that when electricity enters a magnetic field it can make a motor work.

Textiles	EYFS (Physical Development and Expressive Arts and Design)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	Look at and talk about existing sewing joins (purses, puppets, decorations.)	Use a pre-made template to create a design	Create own design template	Develop design criteria from a given brief	Personalise a design and articulate design decisions	Develop a design considering the main component shapes and considering proportions.	Design in accordance to specification linked to a design criteria to fit a specific theme. Annotating designs.
Make	Stitch a pre-cut and pre-punched decoration/puppet	Sequence steps for construction.	Select and cut fabric	Follow design criteria selecting and cutting fabrics using fabric scissors	Making and testing a paper template with accuracy and in keeping with the design criteria	Measure, marking, and cutting fabric accurately and independently	Mark and cut fabric accurately, in accordance with a design.
Evaluate	Suggest ways to make it better	Reflect on a finished product explaining likes and dislikes	Discuss the quality of their work against the success criteria. Evaluating the quality of their peers work.	Evaluate an end product and thinking of ways to create similar items.	Test and evaluate the end product against the original design criteria. Suggesting modifications and improvements.	Test and evaluate an end product and giving points for further improvements.	Evaluate work continually as it is created.
Technical Skills / Knowledge	Learn that stitching can join two pieces of fabric.	Learn different ways in which to join fabrics together.	Sewing –using running stitch, with evenly spaced neat stitches	Thread needles with greater independence and Sewing- using cross stitch and applique	Understand that there are different types of fastenings and what they are.	Thread needles independently and learning blanket stitch to join fabric	Learn different decorative stitches and sewing accurately.

Cooking and Nutrition	EYFS (Physical Development and Expressive Arts and Design)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	Name and taste different fruits. What do they taste like? Talk about what they look like	Name and taste different fruit and vegetables. What do they taste like? Talk about how are they different?	Name and taste different fruit and vegetables. Design based on food combinations that work well together	Create a healthy and nutritious recipe considering taste, texture, smell and appearance	Design a biscuit within a given budget	Adapt a design of a recipe	Include facts and drawings from research undertaken
Make	Chop up some soft fruit safely using a butter knife (for example a banana) 1. Lay food flat on chopping board 2. Use a claw grip to hold the fruit	Chop a range of fruit and vegetables safely using a vegetable knife - child safety type (for example, apple, carrot, cucumber) 1. Lay food flat on chopping board 2. Use a claw grip to hold the fruit	Slice food safely using the claw grip and the bridge grip (for example, the bridge grip is best for curved shapes like tomatoes, plums, aubergines,)	Follow instructions within a recipe and learn basic rules to avoid food contamination.	Follow a baking recipe cooking safely following basic hygiene rules	Follow a step-by-step method carefully to make a recipe using equipment safely including knives, slow cooker hot pans, and hobs.	Follow a recipe, including using the correct quantities of each ingredient. Adapt a recipe based on research.
Evaluate	Suggest ways to make it better	Test and evaluating different foods describing appearance, smell, and taste	Taste testing food describing the taste, texture and smell. Evaluating effective grip.	Establish and using a design criteria to help test and review dishes. Suggesting improvements.	Evaluate a recipe considering: taste, smell, texture and appearance. Suggesting modifications.	Identify the nutritional differences between different products and recipes	Evaluate a recipe, taste testing and scoring final products, suggesting and writing up improvements.
Technical Skills / Knowledge	Understand food can be combined. Recognise that	Understand the difference between fruits and vegetables and	Know the five food groups and how they can be combined.	Work with cooking equipment safely and hygienically. Learning that	Understand the impact of cost and the importance of budgeting. And	Understand where food comes from. And learning to	Understand where food comes from and the term 'Farm to

	everyone has different food preferences. Know that fruit is a healthy food.	evaluate food preferences. Know that we should aim to eat 5 portions of fruit and veg each day.		imported foods travel from far away and this can negatively impact the environment.	understanding the environmental impact on cost of production.	adapt a recipe to make it healthy.	fork' and recording the relevant ingredients and equipment needed for a recipe.
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