Anton Infant school
Design Technology Progression Overview

Intent

At Anton Infant School, we aim for children to develop skills in designing, making and evaluating products for a given purpose, working both collectively as a team and on individual projects and developing the ability to solve problems which are encountered during the process.

Implementation

Design and Technology is taught through both specific skills-based lessons and cross curricular opportunities, where children are inspired by exciting and engaging topics and themes and are introduced to real-world designers, including chefs, weavers and engineers. Through a variety of creative and practical activities, pupils are taught the process of designing, making, evaluating, improving and developing technical knowledge to create their own product using textiles, constructions, mechanisms and structures.

Our Cooking Corner in the creation station provides a dedicated space for children to develop an understanding of cooking techniques, knowledge of the journey of our foods from field to fork and the principles of healthy eating. Through our Forest School environment children have the opportunity to extend their skills using a wide range of materials and real tools to further develop their creativity and design skills.

Intended impact

Through Design Technology, the children will learn:

- Essential life skills of teamwork, logical thinking, problem solving and cooperation
- To select from and use a range of tools and equipment to perform practical tasks, cutting, shaping, joining and finishing
- To evaluate their products and ideas against criteria
- To apply their knowledge and skills in real world contexts

National Curriculum Subject content for DT

EYFS:

- **Expressive art and design:** Return to and build on their previous learning, refining ideas and developing their ability to represent them. Create collaboratively, sharing ideas, resources and skills.
- **Physical:** Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons.
- **ELG: (**Physical development) Fine Motor Skills: Use a range of small tools, including scissors, paint brushes and cutlery; - Begin to show accuracy and care when drawing. ELG: (Expressive art and design) Creating with Materials - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Share their creations, explaining the process they have used. Make use of props and materials when role playing characters in narratives and stories.

KS1 Pupils should be taught to:

Design

- Design purposeful, functional, appealing products for themselves and other users based on design criteria
- Generate, develop, model and communicate their ideas through talking, drawing templates, mock-ups and, where appropriate, information and communication technology

Make

- Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

Evaluate

- Explore and evaluate a range of existing products
- Evaluate their ideas and products against design criteria

Technical knowledge

- Build structures, exploring how they can be made stronger, stiffer and more stable
- Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products

Cooking and nutrition

- Use the basic principles of a healthy and varied diet to prepare dishes.
- Understand where food comes from.

Progression of skills in DT			
	Reception	Year 1	Year 2
Designing	• Begin to use the language of designing and making, e.g. join, build and shape. • Discuss what they want to make. • Learn about planning and adapting initial ideas to make them better. • Use and explore various construction materials and other resources to construct with a purpose in mind. • Adapt work where necessary.	• Draw on their own experience to help generate ideas. • State if the products they intend to design are for themselves or someone else. • Say what their product will be used for and identify a simple design criterion. • Suggest ideas and explain what they are going to do. • Make a simple drawing of their design ideas	• Draw on their own and others' experiences to generate ideas. • Identify a target group for the product they intend to design and make. • Identify a purpose for the product they intend to design and make. • Develop own design ideas through discussion, observation, drawing and modelling. • Make simple drawings of their design and label parts.
	Draw Idea	Product Purpose Criteria Design	Observe Model Target Label Mock up

Making	• Learn to construct with a purpose in mind. • Select tools and techniques needed to shape, assemble and join materials. • Use various construction materials e.g. joining pieces, stacking vertically and horizontally, balancing, making enclosures and creating spaces • Represent their own ideas, thoughts and feelings through Design and Technology.	• Make their designs using appropriate tools and techniques. • With support measure, mark out, cut and shape a range of materials. • Use tools safely and appropriately, with support including when using the woodwork area in Year 1 continuous provision. • Assemble, join and combine materials and components together. • Use simple finishing techniques to improve the appearance of their product.	• Begin to select appropriate tools, materials and techniques – use technical vocabulary to name and describe them. • Measure, cut and score with some accuracy. • Use tools safely and appropriately. • Assemble, join and combine materials and components in order to make a product. • Cut, shape and join fabric using basic sewing techniques. • Choose and use appropriate finishing techniques to improve the appearance of their product.
	Build *Make* *Model* *Cut* *Fold* *Press*	*Cut* *Fold* *Join* *Fix* *Weak* *Strong*	*Structure* *Base* *Underneath* *Thicker* *Thinner* *Corner* *Point* *Straight* *Curved* *Shape*

Evaluating	• Share their creations explaining the process they have used. • Begin to talk about changes made during the making process, e.g. making a decision to use a different joining method. • Talk about existing products and begin to suggest why some materials or features could have been used.	• Explore existing products – say who and what they are for and what they like/dislike about a product. • Evaluate their product by discussing how well it works in relation to its purpose • Evaluate their products as they are developed identifying strengths and possible changes they might make. • Evaluate their product by asking questions about what they have made and how they went about it.	• Explore existing products – say who and what they are for and what they like/dislike about a product, discussing how it could be improved. • Evaluate their product against their design criteria. • Evaluate their products as they are developed, identifying strengths and possible changes they might make. • Talk about their product, saying what they like and dislike about it. Identify how they made their product and if they would make any changes next time.
	Like Don't like	Strength Weakness Dislike	Evaluate Improve Amend Change
Technical knowledge	• Learn how to handle a range of tools and equipment effectively, e.g. scissors, hole punch, rolling pins, pastry cutters. • Learn how everyday objects work by dismantling things.	• Understand the simple working characteristics of materials and components. • Understand about the movement of simple mechanisms including levers and pulleys. • Know the correct technical vocabulary for the projects they are undertaking.	• Understand the simple working characteristics of materials and components. • Understand about the movement of simple mechanisms including levers and pulleys. • Know the correct technical vocabulary for the projects they are undertaking.

		• Understand how freestanding structures can be made stronger, stiffer and more stable.	• Understand how freestanding structures can be made stronger, stiffer and more stable.
	Glue Tape Scissors	Mechanism Level Pully Structure Strong Stiff Weak	Stability Wheels Axles Components
Cooking and nutrition	• Begin to understand some of the tools, techniques and processes involved in food preparation. • Describe the taste and textures of some foods. • Suggest some foods that are healthy. • Have basic hygiene awareness.	• Know that all food comes from plants or animals. • Know that everyone should eat at least five portions of fruit and vegetables every day. • Select and use appropriate fruit and vegetables, processes and tools. • Prepare simple dishes safely and hygienically, without using a heat source. • Use techniques such as cutting to prepare simple dishes.	• Know that food has to be farmed, grown elsewhere or caught. • Name and sort foods into the five groups according to the Eatwell guide. • Select and use appropriate combinations of ingredients, processes and tools. • Prepare simple dishes safely and hygienically • Use techniques such as chopping, peeling and grating to prepare simple dishes.
	Chop Cut Mix	Preparing Fruit Vegetables	Slicing Peeling Chopping

	Equipment	Soft	Cutting
	Taste	Juicy	Squeezing
	Healthy	Crunchy	Healthy diet
	Unhealthy	Sticky	Food groups
	Recipe	Smooth	Choosing
		Sharp	Ingredients
		Crisp	Planning
		Sour	Tasting
		Hard	Arranging
		Flesh	
		Skin	
		Seed	
		Pip	
		Core	

Our annual STEAM (Science, Technology, Engineering, Arts and Maths) week provides opportunities for our pupils to further embed design technology skills and knowledge in specific mini-tasks.