Design & Technology Curriculum INTENT

The Design & Technology curriculum intent at Nethergate is to engage and enable pupils with the design process. This will be through testing ideas, foods, and products through a range of techniques. The design and technology curriculum offers pupils an opportunity to become familiar with a variety of foods, the design process and knowledge of creating prototypes, which supports their creativity, independence, and social skills.

Through the evaluation of the past and present design and technology aims to develop of critical understanding and have an impact on daily life and the wider world. Pupils will learn to understand the process of critique, evaluation and to be able to test their ideas and products and the work of others.

The design and technology curriculum will provide pupils the opportunity to source and cook a range of foods, building up their knowledge and confidence of food groups and recipes. To provide the opportunity to gain knowledge of nutrition and healthy lifestyles and aim to be able to cook and taste new foods.

The intention of design and technology is that pupils will grow in confidence in an ever-increasing technological world learning how to take risks becoming resourceful, innovative and healthy enterprising citizens.

Long Term Plan for Design & Technology

	Informal	Semi-Formal	Express and Innovate
Communication	Pupils will begin to develop an awareness and communicate through AAC devices, gestures, signs and symbols to make choices and express their preferences of different ingredients, materials and components that they have discovered. E.g: children using PECS to select clay instead of building with boxes, jelly instead of custard.	Pupils will develop their knowledge and understanding and communicate their ideas about events and experiences and comparatives through keywords, (verbal or written) to develop their understanding of terms and the design process. E.g. hot- cold, choosing what materials they want to use, creating a simple list of instructions or matching symbols to materials.	Pupils will deepen their understanding of how to use a range of research methods as part of the design process. E.g - this will be through, books, the internet, making and undertaking surveys and exploring existing or previously made food or products. They will communicate their reasons for preferred designs, materials and ingredients. Pupils will deepen their knowledge and understanding by making, modelling and discussing their thought process. They will use and show instructions, drawings, templates, prototypes, ICT, spoken presentations and written reviews to communicate their findings and convey and express their design process individually or as part of a team.
Independence	Pupils will independently engage with an activity and over the given time frame discover a variety of ingredients or a range of textures and actions E.g. banging, scraping, rubbing or pressing tools into a given material /surface and their malleable qualities.	Pupils will develop their independent use of comparing materials through language (signed or spoken) E.g. hot/cold, rough /smooth, big/small, what's next. Pupils will use tools and equipment in simple processes E.g. rolling dough, gluing tissue, building a structure, creating simple recipes.	Pupils will deepen their ability and knowledge of food, tools and equipment to perform practical tasks. E.g. choosing own ingredients to create simple dish, cutting, shaping, connecting to finish a product. They will independently evaluate their work and the work of their peers, giving reasons and opinions for its development.

Safety	Pupils will discover awareness of safe behaviour in their familiar surroundings inside/ outside and in the community, with adult support. E.g. breaktime, handling /using tools and equipment. They will become familiar with washing hands, putting on an apron for cookery, listening to instructions for a new activity.	Pupils will develop the importance of safety in familiar surroundings or when visiting the local community. They will develop understanding of some safety rules for crossing roads and visiting unfamiliar places. Also for using equipment E.g. knowing the oven is hot, the knife is sharp, equipment maybe heavy, electrical etc.	Pupils will deepen their knowledge of design and technology within the wider community be able to explain why and how we need to be safe outside of school when on field trips further away from school. They will be aware of safety rules for being in unfamiliar places and know how to seek help should they need to. E.g. to be able to read and recognise safety signs and symbols. To respect and use equipment in school safely with supervision.
Wellbeing	Pupils will discover an awareness of where and what they feel comfortable with E.g. in familiar surroundings at home and school- classroom, quiet room, sensory areas, playground, home. They will build confidence by visiting new places that are within their local environment- parks, shopping areas. They will begin increase their knowledge of healthy foods for the future developing awareness of a healthier lifestyle.	Pupils will develop their understanding of where they fit into the world through learning about products, foods and designs that are similar and different to what they are already familiar with. They will begin increase their knowledge of sourcing ingredients and of nutrition and how to live a healthier lifestyle.	Pupils will deepen their understanding of how our lives have been changed through events of the past, other cultures, beliefs and people. They will see how products/ materials /food and designs have changed over time and express their opinions. They will increase their knowledge of nutrition and food sourcing and seasonality increasing their knowledge of how to live a healthy lifestyle, creating and evaluating dishes.

In **Design & Technology**, pupils will be expected to know, understand and apply the following by the end of each learning stage;

Informal	Semi Formal	Formal
Design Pupils will **discover** and **explore** the function of objects around them. They will look at images of objects around them relating to a topic.	Pupils will begin to **develop** their understanding of how to use **research** when designing a new or improving an existing product.	Pupils will **develop, extend** and **deepen** their methods of relevant **research** as part of the design process through books, the internet, surveys and exploration.
Informal	Semi Formal	Formal
Design Pupils will **discover** and **explore** textures, shapes and materials communicating a choice or preference.	Pupils will begin to **develop** their skills in **communicating** their ideas and reasons for choosing specific materials to suit them.	Pupils will **communicate their ideas** and **deepen** their understanding of how to create and share their ideas and material choices fit for purpose, through discussion, prototypes and annotated sketches.
Informal	Semi Formal	Formal
Design Pupils will **discover** a range of materials and be able to **indicate** a preference.	Pupils will **develop** their understanding of design and the purpose of different materials and objects and be able to **select** appropriate ones for the given task.	Pupils will **deepen** their knowledge of design and how to design a product fit for purpose and to gain understanding of how to follow a **specific design criteria** brief.
Informal	Semi Formal	Formal
Make Pupils will **discover** through **tools** cause and effect through banging, scaping, pressing or rubbing them onto a surface.	Pupils will **develop** their understanding of the use of various **tools** and the **safe use** of them under supervision.	Pupils will **deepen** their knowledge and skills of a variety of tools and the **appropriate** selection of them for practical tasks.
Informal	Semi Formal	Formal
Make Pupils will **discover** a range of materials through **touch** and manipulation, this maybe through folding, tearing, scrunching for sound and effect.	Pupils will discover and **develop** their use of and knowledge of different materials that have different purposes within their work.	Pupils will **demonstrate** a greater understanding of materials and components selected for their varying properties within their work. They will **apply** their knowledge of how to strengthen or stiffen structures for instance.

Informal	Semi Formal	Formal
Evaluate Pupils will **share** their work with others through group time and display and discover feedback through praise.	Pupils will begin to **develop** their **evaluation** skills and communicate preferences in their design process.	Pupils will continue to develop and deepen their **evaluation skills** and be able to communicate their ideas and products against the design criteria and be able to listen to teacher or peer **feedback** about their work.
Informal	Semi Formal	Formal
Evaluate Pupils will **discover** and manipulate and range of products and packaging in play situations.	Pupils will **develop** product and material knowledge and be able to choose and appropriate product or tool to fulfil a purpose.	Pupils will strengthen their product and material **knowledge** to be able to explore and **evaluate** an existing product and its purpose.
Informal	Semi Formal	Formal
Evaluate Pupils will **discover** and **explore** a range of **designed** inventions and products within a role play situation.	Pupils will **develop** their own ideas based on **inventions** through history and be able to test their designs on best performance and use.	Pupils will **demonstrate** their understanding of how key events and individuals in the design and technology have helped shape the world around them.
Informal	Semi Formal	Formal
Actions Pupils will **discover** the cause and effect of simple actions and using tools.	Pupils will use and develop simple actions using tools for a function and for problem solving.	Pupils will have an increased knowledge of tools and how to use them effectively within their own design.
Informal	Semi Formal	Formal
Introducing Electrical Pupils will **discover** and explore cause and effect of simple electrical or ICT items and be aware of its function, such as turning a light on and off or an ipad on/off button.	Pupils will begin to **develop** skills in choosing simple electrical items for a purpose such as an LED light for a product they have designed and built.	Pupils will have increased knowledge of using electrical devices for a specific purpose and be able to explain and rationalise why such items are used.

Informal	Semi Formal	Formal
Electrical Functions Pupils will explore and discover cause and effect of a simple electrical item with some knowledge of function for example a plug switch to on to work.	Pupils will develop the skill of moving objects on the screen or using online paint application to design their product.	Pupils will have increasing and deepened knowledge in programming to provide instructions via a computer or be able to use 2d/3d CAD /sculpture packages. Pupils will have a deepened knowledge in programming to provide instructions or be able to use 2d/3d sculpture packages. Pupils will have a deepened knowledge in programming to provide instructions or be able to use 2d/3d sculpture packages.
Informal	Semi Formal	Formal
Food Technology - senses Pupils will discover a variety of textures in food and drink using their senses of taste, smell, touch, see, hear.	Pupils will develop their understanding of different foods by texture, taste, smell etc- using simple terms to describe them.	Pupils will develop their understanding and knowledge of a wider range of foods and ingredients identifying their likes and dislikes and be able to describe the taste and texture.

Informal	Semi Formal	Formal
Food Technology – recipe Pupils will discover foods presented as images and be able to match symbols and pictures to ingredients and objects.	Pupil will begin to develop knowledge of foods and recipes and be able to follow and provide instructions on making and sourcing them. This can be supported by symbols and images.	Pupils will deepen their knowledge of following and creating text/in print/video tutorials to follow and deliver a recipe with confidence.
Informal	Semi Formal	Formal
Food Technology – encounter Pupils will communicate methods to indicate their preference to different food and drinks.	Pupils will develop their ability to adapt and change recipes to their own preferences and tastes.	Pupils will develop an understanding of how to adapt and change recipes for others and their own tastes ,substitute ingredients and apply different cooking methods.

Informal	Semi Formal	Formal
Food Technology – measure Pupils will use different equipment to measure ingredients and quantities.	Pupils will develop their measuring skills and use of tools - using a jug for instance to obtain accuracy.	Pupils will use their knowledge and skills for measuring quantities and will deepen knowledge of estimating ingredients.
Informal	Semi Formal	Formal
Food Technology – measure Pupils will discover using scales and movement within them and handling differing amount of foods and ingredients.	Pupils will develop their understanding of different weights in metric and imperial. Looking at packaging and labels. They will use scales to weigh different foods and their ingredients.	Pupils will increase in confidence and knowledge of a variety of foods and ingredients. Pupils will use scales to weigh and begin to estimate the weight/size of a variety of foods and ingredients.
Informal	Semi Formal	Formal
Food Technology – sequence Pupils will demonstrate ways to show their preferences when trying sequential foods.	Pupils will develop understanding of the sequences in following a recipe and develop their own recipes using pictures, symbols, wring or video.	Pupils will deepen their knowledge and ability to create their own recipes, meal plans and shopping lists.
Informal	Semi Formal	Formal
Food Technology – interact Pupils will discover ways of interacting with a variety of food and drinks using hands and tools.	Pupils will develop their knowledge of food preparation and skills to prepare ingredients for recipes. This will include core, peel, cut, beat, squeeze, press, fold, mash, knead, whisk, shape.	Pupils will deepen their knowledge and skills of a variety of cooking methods and implements when using food and creating dishes.
Informal	Semi Formal	Formal
Food Technology – present Pupils will be aware of what appeals to them and when food is presented to them such as snack time, sensory play and dinner time.	Pupils will be increasingly aware of food appearance for presentation. Also for the look of the food for consumption – such ripe banana, pastry browned or fresh milk.	Students will increase knowledge on choosing and sourcing food fit for purpose and sell by dates. Also the planning, preparation and presentation of dishes and to be able to evaluate how the final dish looks.

Informal	Semi Formal	Formal
Food Technology – serve and contain Pupils will discover which objects, foods or liquids fit into different containers, growing an awareness that capacities are different.	Pupils will develop their knowledge that different foods need different methods , tools or containers to serve or save or portion.	Pupils will be aware of a wide range of equipment and tools to serve and store food. They will be aware more independently about the health and safety methods needed for example draining hot liquids safely using a colander. Cooling food quickly for storage.
Informal	Semi Formal	Formal
Food Technology – cultural Pupils will discover that different food preparation tools can be used in different ways. Also using food through role play.	Pupils develop their understanding of the value of the social aspect of food and the different ways in which to eat and prepare it.	Pupils become increasingly aware of cultural food differences and and how important it is to respect them, for instance halal food. Pupils will become more aware of researching how different cultures and countries eat, prepare and celebrate with food.
Informal	Semi Formal	Formal
Food Technology – preparation Pupils will become aware of a variety of tools (with supervision) from the kitchen and begin to use them.	Pupils will develop and use their understanding of the variety of tools and equipment in the kitchen and which one is required for the purpose needed and with safety.	Pupils will have increased knowledge of a wide range of kitchen implements and equipment and use this knowledge to select appropriately and will be able to use them safely. They will be able to select the correct knife for instance to cut bread.
Informal	Semi Formal	Formal
Food Technology – Hygiene Pupils will learn basic food hygiene methods of wearing an apron and washing hands.	Pupils will develop the basic food hygiene principles and regulations of washing hands, wearing an apron, tying back hair, wiping down, washing food and equipment. Pupils will be able to explain why all of these are important.	Pupils will have a deepened knowledge of food hygiene storage, safety procedures and preparation. This will include sell by dates, food preparation/ storage/cross contamination so that is safe to serve and eat. Also washing down and general kitchen cleanliness.

Informal	Semi Formal	Formal
Food Technology – cooling Pupils will become aware that some foods need to chilled or frozen	Pupils will develop their understanding of food safety procedures such as washing food before preparing or eating, using appropriate cooling methods and storage methods such as the fridge and freezer.	Pupils will have a greater understanding of the importance of food safety procedures and cooling food. Knowing why food has a use by date, understanding what food soilage is and cross contamination and how to prevent this happening. Pupils will understand the importance of good practice with food preparation, cooking and storage so it is safe to eat.
Informal	Semi Formal	Formal
Food Technology – cleaning Pupils will know that dirty pots need washing in a bowl, sink or dishwasher	Pupils will wash and rinse different pieces of equipment with safety, paying attention to the detail such as underneath plates if stacked, the small holes in a cheese grater.	Pupils will be able to use appropriate kitchen aids, hot soapy water and be able to rinse and dry all types of equipment in the kitchen with safety – including ones that are heavily soiled.
Informal	Semi Formal	Formal
Food Technology – healthy Pupils will discover some familiar foods that are healthy for a healthy diet	Pupils will have increased knowledge as to what is included in a healthy diet and the food groups. They are able to recognise why it is important to keep heathy, recognise the importance of drinking water, eating regularly and appropriate food portions	Pupils can understand Nutrional food groups and identify nutritional labels. They can communicate and choose from a range of foods which are the healthier choices and choose appropriately healthy recipes.
Informal	Semi Formal	Formal
Food Technology – nutrition Children will be prompted to eat from a range of healthier food and drinks that they may not have tried before. This will underpin the basic of a balanced diet and explore foods they may not have seen or tried before.	Pupils will develop their skills of reading simple Nutrional food labelling using the traffic light coding to identify if something is healthy.	When shopping or choosing foods Pupils can identify labels and wording to choose the healthier alternative for instance low or no sugar.

Informal	Semi Formal	Formal
Food Technology – choices Pupils will discover that food come in many forms such as fresh vegetable, tinned, frozen, dried.	Pupils will develop their understanding that their food comes from a variety of sources and places and a range of equipment is needed to prepare and cook a variety of dishes.	Pupils will develop their awareness of seasonality with food and that there are different farming methods, agricultures and cultures to source them. They will become aware of Fair Trade and sustainability to support farming.
Informal	Semi Formal	Formal
Food Technology – eco Pupils will be able to indicate that they have finished their food choice and where to put their utensils.	Pupils will have an increased understanding of consumer awareness and learn the importance of not wasting food, eco packaging, home grown produce and using them more in their recipes.	Pupils will be increasingly aware of food choices and healthy dietary requirements and how these are influenced by media, money, health, family, peers, religion, occasions and ethics.
Informal	Semi Formal	Formal
Food Technology – evaluate Pupils will discover how to indicate a preference when given an opportunity to select and taste ingredient using signs and symbols to support this.	Pupils will develop their personal self-evaluation to critique their own work using appropriate vocabulary and discuss their preferences.	Pupils will deepen their self evaluation skills to communicate their own and peers work and will be able to identify any improvements that can be made.