

Goldfield Infant and Nursery School DT Skills Document

	Nursery	Reception	Year 1	Year 2
	<p>Through a variety of creative and practical activities pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts, (e.g. the home and school, gardens and playgrounds, the local community, and the wider environment)</p> <p>When designing and making pupils should be taught to:</p> <p>Design</p> <ul style="list-style-type: none">• 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 <p>Make</p> <ul style="list-style-type: none">• select from and use a range of tools and equipment to perform practical tasks, (e.g. 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 <p>Evaluate</p> <ul style="list-style-type: none">• explore and evaluate a range of existing products• evaluate their ideas and products against design criteria <p>Technical Knowledge</p> <ul style="list-style-type: none">• build structures, exploring how they can be made stronger, stiffer and more stable• explore and use mechanisms (e.g. levers, sliders, wheels and axles), in their products			

<p>Research and Design</p>	<ul style="list-style-type: none"> • Ask and answer questions about the starting point for their work. • Develop ideas about how to use different materials available. • Talk about their design and draw on paper 	<ul style="list-style-type: none"> • Hands on investigation of different products and materials. • Develop their own ideas and then decide which materials to use to express them. • Draw their design and explain what they will be making and which tools they will be using. 	<ul style="list-style-type: none"> • Design smoothie carton packaging by-hand • Learning the importance of a clear design criteria. • Including individual preferences and requirements in a design. • Using a template to create a design for a puppet. 	<ul style="list-style-type: none"> • Designing three wrap ideas based on food combinations which work well together. • Designing 2 pancake toppings that go well together. • Designing a Castle with key features to appeal to a specific person/purpose. • Drawing and labelling a castle design using 2D and 3D shapes . • Designing a Christmas tree decoration. • Generate ideas using sketches and photographs of Tring town. • Learn about different types of structures found in
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				<p>buildings e.g brick, wood, metals.</p> <ul style="list-style-type: none"> • Create a class design criteria for the model town.
<p>Skills - Technical Knowledge</p>	<ul style="list-style-type: none"> • Learn to use equipment safely • Learn to snip and cut safely using scissors. • Investigate different ways to join materials • Explore using permanent joins – glue sticks, glue and tape • temporary joins – folding, paper clips, elastic bands • Realise tools can be used for a purpose. • Investigate materials that float/sink • Investigate different fabrics 	<ul style="list-style-type: none"> • Use simple tools and techniques competently • Create representations for both imaginary and real life ideas, events, people and objects • Manipulate materials to achieve a planned effect • Select appropriate resources and adapt work where necessary • Develop their own ideas through experimentation with diverse materials 	<ul style="list-style-type: none"> • 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 structure 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 	<ul style="list-style-type: none"> • To understand how to use the correct cooking equipment for each task. E.g using a knife, grater, whisk. • To understand that wide and flat based objects are more stable. • To understand the importance of strength and stiffness in structures. • Learn to cut fabric safely and with increasing accuracy • Thread a needle • Pin and cut fabric using a template • Join a range of materials in

			something that has been made and put together.	<p>different ways e.g glue, staples.</p> <ul style="list-style-type: none"> To know that different materials have different properties and are suitable for different uses.
Make	<ul style="list-style-type: none"> Select tools and materials from a given range. Talk about what I am making Investigate and experiment with a range of recyclable materials when making their design Use resources to create props to support role-play and imaginative play e.g. stick puppets Join construction sets to build and balance, make imaginative and complex 'small worlds' with blocks and construction kits 	<ul style="list-style-type: none"> Explain what they are going to make. Explain the tools they will be using. Use tools safely. Begin to join and assemble materials and components together. Explore how their design manipulates materials to achieve a planned effect Use a range of resources to create own props to aid role play Develop their own ideas through experimentation with diverse materials 	<ul style="list-style-type: none"> Chopping fruit and vegetables to make a smoothie 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. 	<ul style="list-style-type: none"> Chopping food safely to make a wrap. Constructing a wrap that meets a design brief. Grating foods to make a wrap. Snipping smaller foods instead of cutting. Mixing ingredients to make a pancake. Cooking the pancake. Cutting and arranging toppings.

			<ul style="list-style-type: none"> • Cutting fabric neatly with scissors. • Using joining methods to decorate a puppet. • Sequencing steps for construction. 	<ul style="list-style-type: none"> • Constructing a range of 3 structures using 3D shapes and 2D nets. • Creating special features for individual designs e.g drawbridge. • Selecting and cutting fabrics for sewing. • Decorating using running stitch or fabric glue. • Threading a needle. • Sewing running stitch with evenly spaced neat even stitches to join the fabric. • Neatly pinning and cutting fabric using a template. • Making strong identifiable structures of the town according to the design criteria.
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				<ul style="list-style-type: none"> • Creating joints and structures from paper/card and tape/glue etc • Arranging the town to replicate the layout of Tring.
Evaluate	<ul style="list-style-type: none"> • Talk about what they like and don't like about their product • Identify what they might change in their product or develop in the future 	<ul style="list-style-type: none"> • Talk about what they like or don't like about their product. • Explain what they might change in the future. • Test their models • Talk about changes they have/would like to make • Talk about how the parts were joined. 	<ul style="list-style-type: none"> • Tasting and evaluating different food combinations. • Describing appearance, smell and taste. • Suggesting information to be included on packaging. • Comparing their own smoothie with someone else's. • Evaluating a windmill according to the design criteria, testing whether the structure is strong 	<ul style="list-style-type: none"> • Describe the taste, texture and smell of the food made • Taste testing food combinations and final products. • Describing the information that should be included on a label. • Evaluating food by giving it a score. • Evaluate own work and the work of others based on the original design. • Suggesting points for modification of the original design. • Evaluating the quality of the

			<p>and stable and altering it if it isn't.</p> <ul style="list-style-type: none"> • Suggest points for improvement. • Reflecting on a finished product, explaining likes and dislikes. 	<p>stitching on others work.</p> <ul style="list-style-type: none"> • Discussing as a class the success of their stitching against the success criteria. • Discussing the features of the structures. • Comparing the stability of the different shapes. • Evaluating the strength, stiffness and stability of own structure against others
Cooking & Nutrition	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • use the basic principles of a healthy and varied diet to prepare dishes • Understand where food comes from 			
	<ul style="list-style-type: none"> • Begin to understand that all food comes from plants or animals. 	<ul style="list-style-type: none"> • Find out how fruit and vegetables grow. • Learn how to cut food safely 	<p>Follow a design criterion to make a smoothie. See above</p>	<p>Design a healthy wrap using class design criteria</p>

	<ul style="list-style-type: none"> • Talk about what healthy eating means to them • Begin to understand that everyone should eat at least five portions of fruit and vegetables every day. • Begin to understand the importance of hygiene when preparing food <p>Evaluate:</p> <ul style="list-style-type: none"> • to be able to say which foods they like/dislike 	<ul style="list-style-type: none"> • When taste testing food they can describe different textures. <ul style="list-style-type: none"> • They wash their hands and make sure that surfaces are clean • They think of interesting ways of decorating food they have made, eg, cakes <p>Evaluate:</p> <ul style="list-style-type: none"> • to use their senses to describe different foods 		
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