Design & Technology Curriculum
Progression of Skills and Knowledge

At Westfields Infant School, we want children to develop the knowledge, skills and competencies to access the next stage in their learning. In addition to this we actively encourage and motivate the children to develop positive attitudes, skills and habits so that they are well equipped for the future.

Our intention for our design and technology (D and T) curriculum encourages children to develop their creative, technical and practical expertise, enabling them to perform everyday tasks with confidence. It also fosters children's enthusiasm for designing, making, modifying and inventing products which will enable them, one day, to contribute to our increasingly technological world.

Our design and technology curriculum is designed to provide children with many opportunities for learning through practical, hands-on experiences. Through relevant and meaningful projects, the children are challenged to use their problem-solving skills to find solutions to real life situations. Our goal is that our children will apply their developing knowledge and skills within construction play and their wider experiences. Through the designing process we encourage the children to consider their needs and those of others so that their learning has purpose and relevance. For the making process, this includes age appropriate joining materials and the safe use of construction and food preparation tools. As a school we promote thoughtful choices in the materials selected for construction with sustainability in mind. Our lessons encourage children to explore creative ways to achieve a goal and to see problems encountered as an opportunity for new and purposeful learning to be achieved. This resilience is the key to the children engaging fully in design and technology principles.

At Westfields Infant School, our design and technology curriculum covers key aspects of the Statutory Framework for the Early Years Foundation Stage where technology is used to enhance the seven areas of learning and is based on the National Curriculum for Design and Technology.

The National Curriculum for Design & Technology – Years 1 and 2

The National Curriculum for Design and Technology aims to ensure that all pupils:

- develop the creative, communication, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world;
- design purposeful, functional and appealing products for themselves and others;
- build and apply a repertoire of knowledge, understanding and skills in order to design;
- make high-quality prototypes and products for a wide range of users;
- critique, evaluate and test their ideas and products and the work of others;
- understand and apply the principles of nutrition and learn how to cook.

SKILLS	Progression of Skills		
	Reception	**Year 1**	**Year 2**
Designing	• Draw on their own experience to help generate ideas, with support. • Suggest ideas and explain what they are going to do, with support.	• Draw on their own experience to help generate ideas. • Suggest ideas and explain what they are going to do. • Model their ideas in card or paper.	• Generate ideas, by drawing on their own and other people's experiences. • Develop their design ideas through discussion, research, exploration, observation, drawing and modelling.

		• Develop their design ideas applying findings from their earlier research and exploration.	• Identify simple design criteria. • Make simple drawings and label parts.
Making	• Explore new techniques e.g. joining and cutting. • Begin to use small tools safely e.g. scissors and cutlery. • Begin to assemble, join and combine materials and components together using a variety of temporary methods e.g. glue or masking tape.	• Make their design using appropriate techniques e.g. shaping and finishing. • Use tools safely e.g. scissors, stapler, tape dispenser and a hole punch. • Assemble, join and combine materials and components together using a variety of temporary methods e.g. glue or masking tape.	• Make their design using appropriate and effective techniques e.g. cutting, shaping, joining and finishing. • Begin to select appropriate tools and materials. • Use a wider range of tools safely and appropriately. • Measure, cut and score with some accuracy. • Assemble, join and combine materials appropriately in order to make a product independently. • Begin to use basic sewing techniques with support e.g. running stitch with the ability to thread a needle and tie off.
Evaluating	• Share their creation and explain what they did. • Say what they like about their work. • Refine ideas, making improvements.	• Evaluate their product by discussing how well it works in relation to its purpose (class design criteria). • Begin to evaluate their products when complete, identifying strengths and possible changes they might make next time.	• Evaluate against their design criteria. • Evaluate their products as they are developed, identifying strengths and possible changes they might make. • Communicate their ideas saying what they like and dislike about them e.g. written evaluation.
Cooking and nutrition	• Learn how to select and use appropriate fruit and vegetables, processes and tools. • Peel by hand e.g. satsuma, banana. • Mix/stir loosely and combine ingredients. • Spoon ingredients between containers. • Measure using a spoon e.g. dried herbs or counting ingredients e.g. dried fruit. • Cut soft foods with butter knife e.g. banana, canned peach slices. • Use basic food handling hygienic practises and personal hygiene e.g. washing hands.	• Select and use appropriate fruit and vegetables, processes and tools. • Use a knife to spread. • Peel with a swivel peeler with adult support. • Cut low resistance foods with a table knife e.g. canned pineapple slices, banana etc. • Thread soft foods onto cocktail sticks, e.g. fruit kebab – strawberries, satsuma segments.	• Follow safe procedures for food finishing techniques. • Use simple finishing techniques to improve the appearance of their food. • Peel with a swivel peeler. • Measure and refer to ingredients in simple fractions e.g. half, quarter. • Cut low resistance foods with a knife into equal size pieces/slices e.g. canned pineapple slices, banana and melon. • Learn how to use the bridge cut and claw cut to safely cut fruit.

KNOWLEDGE	**Progression of Knowledge**		
	Reception	**Year 1**	**Year 2**
Structures	• Know how to build structures using a variety of construction resources.	• Know how structures can be made stronger, stiffer and more stable.	• Know how to build structures, knowing how they can be made stronger, stiffer and more stable according to their design criteria.

		• Know how to explore and use simple mechanisms [for example, paper sliders, levers, sliders] in their products.	
Cooking and nutrition	• Know that ingredients can be combined to make a different food item. • Know basic food handling hygienic practises and personal hygiene e.g. washing hands. • Know about Harvest and begin to understand where food comes from (food origin).	• Understand basic food handling hygienic practises and personal hygiene. • Understand where food comes from (farm to fork). • Know terminology such as 'spread' and 'cut'.	• Know and communicate basic food safety and hygiene practises e.g. washing hands and be able to explain why it is important. • Explain where food comes from. • Know that some foods are healthier than others. • Know different cutting methods i.e. bridge cut and claw cut. • Know when it is best to use a cutting method in relation to which item of food they are cutting.
Joining materials	• Know that two or more materials can be joined together. • Know that a split pin can be used to make an object move. • Begin to understand different movements and directions of movements.	• Develop understanding of different joining methods. • Begin to think about which method may be best depending on their design.	• Know that there are many ways to join materials together. • Know which methods are more effective depending on the design. • Develop vocabulary such as 'stronger' and 'more secure' and use this to communicate their choice of joining method. • Know what a flange is and why/when we would use it.
Axles and wheels	• Know that wheels enable an object to move.	• Know the meaning of the terms axle, dowel, wheel, frame and chassis. • Know how the elements interconnect to make a moving moon buggy. • Know how to join materials together to make different parts of the vehicle. • Know how to make their design look attractive by looking at various examples.	
Pivots, sliders and levers	• Know how a split pin can be used to make a moving part.	• Know what a pivot is and why we use them. • Know that a template can be used to plan a design before making it.	• Know that an object can move in a variety of different ways. • Keeping their design criteria in mind, know when a pivot would be best to use and when a slider may be best. • Know that pivots, levers and sliders can be used in conjunction to create an effective moving picture.
Textiles			• Know that sewing is a method used to join pieces of fabric together. • Know how to thread a needle and sew a running stitch.

			• Know which method of joining is best to use depending on the purpose and be able to communicate this.