Design and Technology overview 2016-2017.

We aim to prepare children for participation in tomorrow's rapidly changing technologies. Design and technology at Tany's Dell Primary School will provide children with the tools to deal with problems they meet in everyday life. We meet the requirements of the National Curriculum in Design and Technology by providing a balanced programme where children have experiences involving structures, mechanisms, food technology and materials /textiles.

Design and Technology requires pupils to apply knowledge and skills to solve practical problems. It involves identifying needs, generating design ideas, planning, making and appraising. It spans the curriculum and supports work in other subjects. Through well planned tasks, which allow for creativity, pupils learn how to take risks and become resourceful, innovative, enterprising and capable citizens.

At Tany's Dell we aim to:

- Develop creative thinking.
- Provide a relevant & challenging enjoyable D&T curriculum
- Provide opportunities for co-operative working.
- Give children opportunities to work independently and develop their organisational and presentation skills.
- Encourage children to investigate and use a variety of materials with economy.
- Teach children how to use various tools appropriately.
- Use a practical, problem-solving approach to tasks, the children will develop a range of skills around the design process (investigate, design, model, refine, make, test and evaluate).

Curriculum planning:

The new National Curriculum is the basis for planning and teaching in Design and Technology and is implemented through a creative curriculum themed approach, incorporating cross curricular links. In the foundation stage, teaching is based on the Early Years Foundation Stage and is implemented as part of Understanding the World through themes. The National Curriculum gives guidance as to what children should be taught. We have used that guidance to make an overview of design and technology to ensure that there is the correct coverage and progression across the school. At Tany's Dell we also use our Curriculum Planner which ensures that children are taught history skills progressively.

Foundation Stage	- Construct with a purpose in mind, using a variety of resources -Use simple tools and techniques competently and appropriately - Build and construct with a wide range of objects, selecting appropriate resources and adapting their work when necessary -Select tools and techniques that need to shape, assemble and join materials they are using.
Year One	<u>Designing</u> -Design purposeful, functioning products for yourself and others. -Generate and develop ideas. <u>Making</u> -Begin to select tools and equipment; use vocab' to name and describe them -Select from a wide range of materials and components. <u>Evaluating</u> -Evaluate his/her ideas against design criteria <u>Technical knowledge</u> -Build structures, exploring how they can be made stronger, stiffer and more stable <u>Cooking and nutrition</u> -Use the basic principles of a healthy and varied diet to prepare dishes -Understand where food comes from.
Year Two	<u>Designing</u> -Design purposeful, functioning products for yourself and others. -Generate and develop ideas through discussion and sketches. <u>Making</u> -Begin to select tools and equipment; use vocabulary to name and describe them -Select from a wide range of materials and components. <u>Evaluating</u> -Evaluate his/her ideas against design criteria -Explore and evaluate a range of existing products <u>Technical knowledge</u> -Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. <u>Cooking and nutrition</u> -Use the basic principles of a healthy and varied diet to prepare dishes -Understand where food comes from.
Year Three	<u>Designing</u> -Investigate a range of existing products -Use research to develop design criteria to inform the design of appealing products -Generate and develop ideas through discussion and sketches. <u>Making</u> -Select from and use a wider range of tools and equipment to perform practical tasks -Select from a wide range of materials and components. <u>Evaluating</u> -Evaluate his/her ideas against their own design criteria. <u>Technical Knowledge</u> -Apply their understanding of how to strengthen, stiffen and reinforce more complex structures -Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] <u>Cooking and nutrition</u> -Understand and apply the principles of a healthy and varied diet -Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
Year Four	<u>Designing</u> -Investigate a range of existing products -Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, -Generate and develop ideas through discussion and annotated sketches <u>Making</u> -Select from and use a wider range of tools and equipment to perform practical tasks accurately -Select from a wide range of materials and components according to their functional properties <u>Evaluating</u> -Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work <u>Technical Knowledge</u> -Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] -Understand how to strengthen and improve more complex structures with supporting evidence. -Understand and apply the principles of a healthy and varied diet and know where and how a variety of ingredients are grown -Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
Year Five	<u>Designing</u> -Investigate and analyse a range of existing products -Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose aimed at particular individuals or groups. -Generate and develop ideas through discussion, annotated sketches and prototypes. <u>Making</u> -Select from and use a wider range of tools and equipment to perform practical tasks accurately and effectively. -Select from a wide range of materials and components according to their functional properties and aesthetic qualities Evaluating -Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work in various ways.

	Technical Knowledge -Apply their understanding of computing to program, monitor and control their products. -Understand how to strengthen and improve more complex structures with supporting evidence. Cooking and nutrition -Understand and apply the principles of a healthy and varied diet and know where and how a variety of ingredients are grown or reared. -Investigate, prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
Year Six	Designing -Investigate and analyse a range of existing products -Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose aimed at particular individuals or groups. -Generate and develop ideas through discussion, annotated sketches and prototypes and computer-aided design Making -Select from and use a wider range of tools and equipment to perform practical tasks accurately and effectively. -Select from a wide range of materials and components according to their functional properties and aesthetic qualities Evaluating -Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work in various ways. Technical Knowledge -Apply their understanding of computing to program, monitor and control their products. -Understand how to strengthen and improve more complex structures with plausible supporting evidence. Cooking and nutrition -Understand and apply the principles of a healthy and varied diet and know where and how a variety of ingredients are grown, reared and processed. -Independently prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.