Donnington Wood CE Junior School

Our School Vision

Our school is a community where each person is valued as a child of God. We are a Church of England school, inspired and guided by the life and teaching of Jesus. We work together to create a caring, friendly and safe school family, to enable the whole school community to flourish and each person reach their full God-given potential.

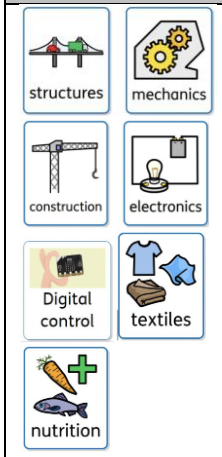
Our core values

friendship
hope
perseverance

Our Motto

"*The ones who plant and the ones who water work together as a team with the same purpose*."
1 Corinthians 3:8
We believe that with God's help when we all work as a TEAM - Together Everyone Achieves More.

Progression in Design and Technology

Key concepts	Year 3			Year 4			Year 5			Year 6		
	AUTUMN	SPRING	SUMMMER	AUTUMN	SPRING	SUMMMER	AUTUMN	SPRING	SUMMMER	AUTUMN	SPRING	SUMMMER
	**How can we make Christmas special for someone else?** **MECHANISMS** **(A pop- up toy using pneumatic systems)** Design/Plan, measure	**How can we make something better?** **TEXTILES** **(Phone pouches)** *(Science link)* Design/Plan, measure and cut, sewing, evaluate.	**How can we cook our own healthy food?** **COOKING AND NUTRITION** **(Healthy sandwich to take to the seaside)** *(Topic link- Victorian children &*	**How can we make Christmas special for someone else?** **MECHANISMS** **(A moving book on 'The Nativity' using levers**	**How can we make something better?** **TEXTILES** **(Pencil cases)** *(Science link)* Design/Plan, measure and cut, fasteners, sewing, evaluate.	**How can we cook our own healthy food?** **COOKING AND NUTRITION** **(Healthy soup)** *(Science link)* Design/Plan, measure and	**How can we make Christmas special for someone else?** **MECHANISMS** **(A moving Christmas toy using Cams)**	**How can we make somethi ng better?** **TEXTILES** **(Travel bags)** *(Science link)* Design/Pl an, measure and cut, recycle,	**How can we cook our own healthy food?** **COOKING AND NUTRITIO N** **(Making bread)** *(Science link)* - Design/Plan	**How can we make Christma s special for someone else?** **MECHAN ISMS** **(An electroni c toy using a pulley and belt system)**	**How can we make something better?** **TEXTILES** **(Bucket hats)** *(Science link)* Design/Plan, measure and cut, recycle, reuse, sewing, evaluate.	**How can we cook our own healthy food?** **COOKING AND NUTRITIO N** **(Healthy pizza)** *(Science link)* - Design/Plan,

	and cut, make, evaluate. .		*Science link)* Design/Plan, cut/grate, make, evaluate.	**and linkages)** *(RE link)* - Design/Plan, measure and cut, lever make, evaluate.		cut, make, evaluate.	Design/Plan, measure and cut, cam make, evaluate.	reuse, fasteners, sewing, evaluate.	, measure and knead, make, evaluate.	*(Science link)* - Design/Plan, measure and cut, saw, electrical circuit, pulley, belt, make, evaluate.		measure, cut, grate, make, evaluate. (including base making)
	 **Designing:** **Understanding contexts, users and purposes** <u>Across KS2 pupils should:</u> • work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment • describe the purpose of their products • indicate the design features of their products that will appeal to intended users • explain how particular parts of their products work <u>In early KS2 pupils should also:</u> • gather information about the needs and wants of particular individuals and groups • develop their own design criteria and use these to inform their ideas			 **Designing:** **Understanding contexts, users and purposes** <u>Across KS2 pupils should:</u> • work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment • describe the purpose of their products • indicate the design features of their products that will appeal to intended users • explain how particular parts of their products work <u>In early KS2 pupils should also:</u> • gather information about the needs and wants of particular individuals and groups • develop their own design criteria and use these to inform their ideas			 **Designing:** **Understanding contexts, users and purposes** <u>Across KS2 pupils should:</u> • work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment • describe the purpose of their products • indicate the design features of their products that will appeal to intended users • explain how particular parts of their products work <u>In late KS2 pupils should also:</u> • carry out research, using surveys, interviews, questionnaires and web-based resources			 **Designing:** **Understanding contexts, users and purposes** <u>Across KS2 pupils should:</u> • work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment • describe the purpose of their products • indicate the design features of their products that will appeal to intended users • explain how particular parts of their products work <u>In late KS2 pupils should also:</u> • carry out research, using surveys, interviews, questionnaires and web-based resources		

			• identify the needs, wants, preferences and values of particular individuals and groups • develop a simple design specification to guide their thinking	• identify the needs, wants, preferences and values of particular individuals and groups • develop a simple design specification to guide their thinking
	 **Designing:** **Generating, developing, modelling and communicating ideas** <u>Across KS2 pupils should:</u> • share and clarify ideas through discussion • model their ideas using prototypes and pattern pieces • use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas • use computer-aided design to develop and communicate their ideas <u>In early KS2 pupils should also:</u> • generate realistic ideas, focusing on the needs of the user • make design decisions that take account of the availability of resources	 **Designing:** **Generating, developing, modelling and communicating ideas** <u>Across KS2 pupils should:</u> • share and clarify ideas through discussion • model their ideas using prototypes and pattern pieces • use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas • use computer-aided design to develop and communicate their ideas <u>In early KS2 pupils should also:</u> • generate realistic ideas, focusing on the needs of the user • make design decisions that take account of the availability of resources	 **Designing:** **Generating, developing, modelling and communicating ideas** <u>Across KS2 pupils should:</u> • share and clarify ideas through discussion • model their ideas using prototypes and pattern pieces • use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas • use computer-aided design to develop and communicate their ideas <u>In late KS2 pupils should also:</u> • generate innovative ideas, drawing on research • make design decisions, taking account of constraints such as time, resources and cost	 **Designing:** **Generating, developing, modelling and communicating ideas** <u>Across KS2 pupils should:</u> • share and clarify ideas through discussion • model their ideas using prototypes and pattern pieces • use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas • use computer-aided design to develop and communicate their ideas <u>In late KS2 pupils should also:</u> • generate innovative ideas, drawing on research • make design decisions, taking account of constraints such as time, resources and cost
	 **Making** **Planning** <u>Across KS2 pupils should:</u>	 **Making** **Planning** <u>Across KS2 pupils should:</u>	 **Making** **Planning** <u>Across KS2 pupils should:</u>	 **Making** **Planning** <u>Across KS2 pupils should:</u>

	• select tools and equipment suitable for the task • explain their choice of tools and equipment in relation to the skills and techniques they will be using • select materials and components suitable for the task • explain their choice of materials and components according to functional properties and aesthetic qualities In early KS2 pupils should also: • order the main stages of making	• select tools and equipment suitable for the task • explain their choice of tools and equipment in relation to the skills and techniques they will be using • select materials and components suitable for the task • explain their choice of materials and components according to functional properties and aesthetic qualities In early KS2 pupils should also: • order the main stages of making	• select tools and equipment suitable for the task • explain their choice of tools and equipment in relation to the skills and techniques they will be using • select materials and components suitable for the task • explain their choice of materials and components according to functional properties and aesthetic qualities In late KS2 pupils should also: • produce appropriate lists of tools, equipment and materials that they need • formulate step-by-step plans as a guide to making	• select tools and equipment suitable for the task • explain their choice of tools and equipment in relation to the skills and techniques they will be using • select materials and components suitable for the task • explain their choice of materials and components according to functional properties and aesthetic qualities In late KS2 pupils should also: • produce appropriate lists of tools, equipment and materials that they need • formulate step-by-step plans as a guide to making
	 **Making** **Practical skills and techniques** Across KS2 pupils should: • follow procedures for safety and hygiene • use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components In early KS2 pupils should also:	 **Making** **Practical skills and techniques** Across KS2 pupils should: • follow procedures for safety and hygiene • use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components In early KS2 pupils should also:	 **Making** **Practical skills and techniques** Across KS2 pupils should: • follow procedures for safety and hygiene • use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components In late KS2 pupils should also:	 **Making** **Practical skills and techniques** Across KS2 pupils should: • follow procedures for safety and hygiene • use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components In late KS2 pupils should also:

	• measure, mark out, cut and shape materials and components with some accuracy • assemble, join and combine materials and components with some accuracy • apply a range of finishing techniques, including those from art and design, with some accuracy	• measure, mark out, cut and shape materials and components with some accuracy • assemble, join and combine materials and components with some accuracy • apply a range of finishing techniques, including those from art and design, with some accuracy	• accurately measure, mark out, cut and shape materials and components • accurately assemble, join and combine materials and components • accurately apply a range of finishing techniques, including those from art and design • use techniques that involve a number of steps • demonstrate resourcefulness when tackling practical problems	• accurately measure, mark out, cut and shape materials and components • accurately assemble, join and combine materials and components • accurately apply a range of finishing techniques, including those from art and design • use techniques that involve a number of steps • demonstrate resourcefulness when tackling practical problems
	✓✗ **Evaluating** **Own ideas and products** <u>Across KS2 pupils should:</u> • identify the strengths and areas for development in their ideas and products • consider the views of others, including intended users, to improve their work <u>In early KS2 pupils should also:</u> • refer to their design criteria as they design and make • use their design criteria to evaluate their completed products	✓✗ **Evaluating** **Own ideas and products** <u>Across KS2 pupils should:</u> • identify the strengths and areas for development in their ideas and products • consider the views of others, including intended users, to improve their work <u>In early KS2 pupils should also:</u> • refer to their design criteria as they design and make • use their design criteria to evaluate their completed products	✓✗ **Evaluating** **Own ideas and products** <u>Across KS2 pupils should:</u> • identify the strengths and areas for development in their ideas and products • consider the views of others, including intended users, to improve their work <u>In late KS2 pupils should also:</u> • critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make • evaluate their ideas and products against their original design specification	✓✗ **Evaluating** **Own ideas and products** <u>Across KS2 pupils should:</u> • identify the strengths and areas for development in their ideas and products • consider the views of others, including intended users, to improve their work <u>In late KS2 pupils should also:</u> • critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make • evaluate their ideas and products against their original design specification
	✓✗ **Evaluating** **Existing products**	✓✗ **Evaluating** **Existing products**	✓✗ **Evaluating** **Existing products**	✓✗ **Evaluating** **Existing products**

	Across KS2 pupils should investigate and analyse: • how well products have been designed • how well products have been made • why materials have been chosen • what methods of construction have been used • how well products work • how well products achieve their purposes • how well products meet user needs and wants In early KS2 pupils should also investigate and analyse: • who designed and made the products • where products were designed and made • when products were designed and made • whether products can be recycled or reused	Across KS2 pupils should investigate and analyse: • how well products have been designed • how well products have been made • why materials have been chosen • what methods of construction have been used • how well products work • how well products achieve their purposes • how well products meet user needs and wants In early KS2 pupils should also investigate and analyse: • who designed and made the products • where products were designed and made • when products were designed and made • whether products can be recycled or reused	Across KS2 pupils should investigate and analyse: • how well products have been designed • how well products have been made • why materials have been chosen • what methods of construction have been used • how well products work • how well products achieve their purposes • how well products meet user needs and wants In late KS2 pupils should also investigate and analyse: • how much products cost to make • how innovative products are • how sustainable the materials in products are • what impact products have beyond their intended purpose	Across KS2 pupils should investigate and analyse: • how well products have been designed • how well products have been made • why materials have been chosen • what methods of construction have been used • how well products work • how well products achieve their purposes • how well products meet user needs and wants In late KS2 pupils should also investigate and analyse: • how much products cost to make • how innovative products are • how sustainable the materials in products are • what impact products have beyond their intended purpose
	Evaluating **Key events and individuals** Across KS2 pupils should know: • about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products	**Evaluating** **Key events and individuals** Across KS2 pupils should know: • about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products	**Evaluating** **Key events and individuals** Across KS2 pupils should know: • about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products	**Evaluating** **Key events and individuals** Across KS2 pupils should know: • about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products
	Technical knowledge **Making products work**	**Technical knowledge** **Making products work**	**Technical knowledge** **Making products work**	**Technical knowledge** **Making products work**

	(STEAM) <u>Across KS2 pupils should know:</u> • how to use learning from science to help design and make products that work • how to use learning from mathematics to help design and make products that work • that materials have both functional properties and aesthetic qualities • that materials can be combined and mixed to create more useful characteristics • that mechanical and electrical systems have an input, process and output • the correct technical vocabulary for the projects they are undertaking <u>In early KS2 pupils should also know:</u> • how mechanical systems such as levers and linkages or pneumatic systems create movement • how to make strong, stiff shell structures • that a single fabric shape can be used to make a 3D textiles product • that food ingredients can be fresh, pre-cooked and processed	**(STEAM)** <u>Across KS2 pupils should know:</u> • how to use learning from science to help design and make products that work • how to use learning from mathematics to help design and make products that work • that materials have both functional properties and aesthetic qualities • that materials can be combined and mixed to create more useful characteristics • that mechanical and electrical systems have an input, process and output • the correct technical vocabulary for the projects they are undertaking <u>In early KS2 pupils should also know:</u> • how mechanical systems such as levers and linkages or pneumatic systems create movement • how to make strong, stiff shell structures • that a single fabric shape can be used to make a 3D textiles product • that food ingredients can be fresh, pre-cooked and processed	**(STEAM)** <u>Across KS2 pupils should know:</u> • how to use learning from science to help design and make products that work • how to use learning from mathematics to help design and make products that work • that materials have both functional properties and aesthetic qualities • that materials can be combined and mixed to create more useful characteristics • that mechanical and electrical systems have an input, process and output • the correct technical vocabulary for the projects they are undertaking <u>In late KS2 pupils should also know:</u> • how mechanical systems such as cams or pulleys or gears create movement • how simple and complex electrical circuits and components can be used to create functional products • how to program a computer to monitor changes in the environment and control their products • how to reinforce and strengthen a 3D framework	**(STEAM)** <u>Across KS2 pupils should know:</u> • how to use learning from science to help design and make products that work • how to use learning from mathematics to help design and make products that work • that materials have both functional properties and aesthetic qualities • that materials can be combined and mixed to create more useful characteristics • that mechanical and electrical systems have an input, process and output • the correct technical vocabulary for the projects they are undertaking <u>In late KS2 pupils should also know:</u> • how mechanical systems such as cams or pulleys or gears create movement • how simple and complex electrical circuits and components can be used to create functional products • how to program a computer to monitor changes in the environment and control their products • how to reinforce and strengthen a 3D framework

					• that a 3D textiles product can be made from a combination of fabric shapes • that a recipe can be adapted by adding or substituting one or more ingredients		• that a 3D textiles product can be made from a combination of fabric shapes • that a recipe can be adapted by adding or substituting one or more ingredients	
	**Cooking and nutrition:** **Knowledge:** <u>Where food comes from.</u> • that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in Shropshire and the UK <u>In early KS2 pupils should also know:</u> • that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The Eatwell plate • that to be active and healthy, food and drink are needed to provide	**Cooking and nutrition:** **Skills:** Cooking and nutrition: Food preparation, cooking and nutrition <u>Across KS2 pupils should know:</u> • how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source • how to use a range of techniques such	**Cooking and nutrition:** **Knowledge:** <u>Where food comes from.</u> • that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in Shropshire and the UK <u>In early KS2 pupils should also know:</u> • that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The Eatwell plate • that to be active and healthy, food and drink are	**Cooking and nutrition:** **Skills:** Cooking and nutrition: Food preparation, cooking and nutrition <u>Across KS2 pupils should know:</u> • how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source • how to use a range of	**Cooking and nutrition:** **Knowledge:** <u>Where food comes from.</u> • that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world <u>In late KS2 pupils should also know:</u> • that seasons, climate and growing conditions may affect the food available	**Cooking and nutrition:** **Skills:** Cooking and nutrition: Food preparation, cooking and nutrition <u>Across KS2 pupils should know:</u> • how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source • how to use a range of	**Cooking and nutrition:** **Knowledge:** <u>Where food comes from.</u> • that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world <u>In late KS2 pupils should also know:</u> • that seasons, climate and growing conditions may affect the food available • how food is processed into ingredients that	**Cooking and nutrition:** **Skills:** Cooking and nutrition: Food preparation, cooking and nutrition <u>Across KS2 pupils should know:</u> • how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source • how to use a range of

	energy for the body • the difference between **perishable** and **non-perishable** foods	as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking <u>In early KS2 pupils should also know:</u> • how to select appropriate ingredients and equipment. • basic food preparation techniques such as **cutting, chopping, grating and spreading**. • safe knife techniques, including the **bridge hold** and **claw grip**. • How to follow and write recipes. • How ingredients can be combined to create healthy meals.	needed to provide energy for the body he body • the difference between **perishable** and **non-perishable** foods	techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking <u>In early KS2 pupils should also know:</u> • how to select appropriate ingredients and equipment. • basic food preparation techniques such as **cutting, chopping, grating and spreading**. • safe knife techniques, including the **bridge hold** and **claw grip**. • How to follow and write recipes. • How ingredients	• how food is processed into ingredients that can be eaten or used in cooking including **canning, freezing, refrigerating and dehydrating**. • what **food miles** are and how food may travel long distances before reaching consumers • the advantages and disadvantages of importing food • how food choices can affect the environment through transportation and carbon footprint • different people require different amounts of energy • food provides energy	techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking <u>In late KS2 pupils should also know:</u> • that recipes can be adapted to change the appearance, taste, texture and aroma • that different food and drink contain different substances – nutrients, water and fibre – that are needed for health	can be eaten or used in cooking including **canning, freezing, refrigerating and dehydrating**. • what **food miles** are and how food may travel long distances before reaching consumers • the advantages and disadvantages of importing food • how food choices can affect the environment through transportation and carbon footprint • different people require different amounts of energy • food provides energy measured in **kilojoules (kJ)** and **kilocalories (kcal)**. • the relationship between energy intake, activity levels and maintaining a	techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking <u>In late KS2 pupils should also know:</u> • that recipes can be adapted to change the appearance, taste, texture and aroma • that different food and drink contain different substances – nutrients, water and fibre – that are needed for health

					can be combined to create healthy meals. • In Year 4, that applying heat causes **irreversible changes** to ingredients during cooking.		measured in **kilojoules (kJ)** and **kilocalories (kcal)**. • the relationship between energy intake, activity levels and maintaining a healthy body weight • the importance of portion sizes. • how to read and interpret food labels and nutritional information.			healthy body weight • the importance of portion sizes. • how to read and interpret food labels and nutritional information.	