

Design Technology Curriculum EYFS – Year 6

The primary intent for our curriculum

- Children to recognise the result of design and technology in everyday life
- Children to know that DT is a subject where they learn to make and evaluate things effectively
- Leave Primary with a firm grasp of the design, make, evaluate cycle
- Children to be confident and safe with a range of simple tools and to be able to choose and select appropriate tools to use safely and sensibly
- Food technology is weaved across wider learning opportunities within KS1 and KS2, alongside specific units of work. Children are also given the opportunity to work alongside the school chef to develop their understanding of healthy eating whist creating, experimenting with and tasting a range of dishes to promote healthy eating within the school dining hall

The primary intent for our EYFS curriculum.

- To become 'Curiously Creative' by embedding their skills, techniques and knowledge of experiences and artists to represent and complete their dreams.
- To become a little 'Musical Mover' to be able to perform a story, song, poem, rap or rhyme to an audience.
- To be able to discern many instruments, listen attentively to the sounds they make, to talk about music and express their feelings and responses to what they can hear.

	Aut	tumn	Sp	ring	Sum	nmer
	1	2	1	2	1	2
Nursery	-Explore different materials their ideas about how to use - Explore colour and colour r	them and what to make.	-Make imaginative and comp blocks and construction kits, buildings and a park. -Begin to develop complex st equipment like animal sets, of -Create closed shapes with couse these shapes to represent	such as a city with different tories using small world dolls and dolls houses etc. ontinuous lines, and begin to	-Develop their own ideas and materials to use to express th - Join different materials and - Draw with increasing compl representing a face with a cir	nem. explore different textures. lexity and detail, such as
Reception			· · · · · · · · · · · · · · · · · · ·		-Return to and build on their ideas and developing their al	
Year 1		Beside the Sea: Design and evaluate a simple Christmas Decoration (sewing)		Katie Morag: Design and evaluate a lighthouse		At the Palace: To design and evaluate a sandwich
Year 1/2 Cycle B	Out and About: Structures (houses)		Rolling over the ocean: Design and evaluate a boat		Florence Nightingale Design and evaluate a bird feeder	
Year 3	Land Before Time: Food technology (stone age food)		Tremors: Structures (Earthquake proof building)		The Boy King: Choosing and combining materials (textiles) (Egyptian cuff)	
Year 4		South America: Choosing appropriate materials and tools for purpose (Chocolate bar wrappers)		Rotten Romans: Magonel: materials		Vicious Vikings: Food Technology (Viking bread)
Year 5		WWII: Food Technology	Around the World: Bridge Building – Combining materials		Meet the Greeks: Moving toys – Cams	
Year 5/6 Cycle B		Great Britains: Sewing (Christmas decoration)		Evolution of technology: Electrical systems		Food of the Gods: Programming

Nursery	Autumn	Cycle 1 – We're going on a bear hunt, Peace at last, Goldilocks and the three bears, Dear Santa Cycle 2 - The tiger who came to tea, The three little pigs, room on the broom, Kipper's Christmas Eve		
wilat Will be	taught key ideas?	I wonder	Key vocabulary	
To explore co box resource	olour mixing with paddles, cellophane and light s	I wonder who lives there? I wonder how you get there? I wonder what it looks/tastes/sounds/feels like? I wonder what happens if?	Transparent Colour names of primary colours (red, blue and yellow) Build	
	n purpose and meaning using a range of materials eg. A chair for a bear	I wonder who it is? I wonder how it's made?	Create Make	
STEM activity	y Building brick rainbows	I wonder how many? I wonder why/how/who?	Balance Stack How many? Imagine	

Nursery	Spring	Cycle 1 – The gingerbread man, Kitchen disco, cleversticks, sharing a shell		
		Cycle 2 – Elmer, Rosie's walk, Bathroom boogie,		
What will be	taught key ideas?	I wonder	Key vocabulary	
	inative small worlds with a full range of resources eg	I wonder who lives there?	Transparent	
a forest, a farı	nyard, under the sea, a bathroom/kitchen	I wonder how you get there?	Colour names of primary	
Talkerilder in		I wonder what it	colours (red, blue and	
	ourpose and meaning using a range of construction A bridge to cross a river	looks/tastes/sounds/feels like?	yellow)	
materials eg. /	A briage to cross a river	I wonder what happens if?	Build	
To build with	ourpose and intent	I wonder who it is?	Create	
1	1	I wonder how it's made?	Make	
To match bloc	ks to silhouettes	I wonder how many?	Balance	
		I wonder why/how/who?	Stack	
STEM activity	y Gingerbread Man Boat		How many?	
			Imagine	
			Match	
			Same	
			Different	

Nursery	Summer	Cycle 1 – Peepo, Whatever next, the selfish crocodile, the very hungry caterpillar Cycle 2 – Walking through the jungle, Jack and the beanstalk, Owl babies, Farmyard hullabaloo		
What will be	taught key ideas?	I wonder	Key vocabulary	
To join differe To build with materials eg.	increasing complexity and detail, such as face with a circle and including details. Int materials with tape, glue and staples purpose and meaning using a range of construction A building Y Jack & The Beanstalk, build a castle in the	I wonder who lives there? I wonder how you get there? I wonder what it looks/tastes/sounds/feels like? I wonder what happens if? I wonder who it is? I wonder how it's made? I wonder how many? I wonder why/how/who?	Transparent Colour names of primary colours (red, blue and yellow) Build Create Make Balance Stack How many? Imagine Match Same Different Join Tape Glue Staple Attach Scissors Cut Tape dispenser	

Reception Autumn	Superworm, The enormous turnip, Funny bones, Gruffalo, Stick Man, Lost and found		
What will be taught key ideas?	I wonder	Key vocabulary	
To wrap wool.	Open ended questioning to prompt	Wrap	
	deeper discussion.	Wool	
To create homes for a fictional character.	I wonder who lives there?	Create	
	I wonder how you get there?	Colour	
To design and make a stick man.	I wonder what it	Autumn	
To design and make a stick man.	looks/tastes/sounds/feels like?	Stick	
To make a game link of to make the same of the	1	Leaves	
To make a poppy linked to remembrance day.	I wonder what happens if?	Cut	
	I wonder who it is?	Stick	
STEM activity Boat size and strength testing	I wonder how it's made?	Paint	
	I wonder how many?	Press	
	I wonder why/how/who?	Рорру	

Reception Spring	Mixed, Once there were giants, Three billy goats gruff, Little red hen, Zog		
What will be taught key ideas?	I wonder	Key vocabulary	
To make a sprinkle colour cake discussing food hygiene.	Open ended questioning to prompt deeper discussion.	Food hygiene Wash	
To build bridges in a variety of ways.	I wonder who lives there? I wonder how you get there?	Dry Clean	
To make a Zog dragon puppet.	I wonder what it looks/tastes/sounds/feels like?	Glue Cut Join	
To plan and build castles.	I wonder what happens if?	Build	
STEM activity Billy Goats Gruff bridge building	I wonder who it is? I wonder how it's made? I wonder how many? I wonder why/how/who?	Plan Material Shapes	

Reception	Summer	The little red hen, Monkey puzzle, Handa's Hen, What the ladybird heard, commotion ir			
		the ocean.			
What will be	taught key ideas?	I wonder	Key vocabulary		
	I make tractors with wheels. y Gingerbread Man trap (What the ladybird	Open ended questioning to prompt deeper discussion. I wonder who lives there? I wonder how you get there? I wonder what it	Bake Bread Oven Hot Flour	Design Make Tractor Wheel Turn	
		Iooks/tastes/sounds/feels like? I wonder what happens if? I wonder who it is? I wonder how it's made? I wonder how many? I wonder why/how/who?	Wheat Mix Rise Yeast Kneed Press Dough	Join Stick Glue Dry Hygiene Clean Wash Measure	

EYFS STEM Projects				
	Nursery	Reception		
Autumn	Building Brick Rainbows	Boat size and strength testing		
Spring	Gingerbread Man Boat	Billy Goats Gruff Bridge Building		
Summer	Jack & The Beanstalk Build a Castle in the Clouds	Gingerbread Man Trap (What the ladybird heard characters instead of GBM)		

Design and evaluate a Christmas decoration **Topic: Beside the Seaside** Term: Autumn 2 Year: 1

Foundations of previous learning:

- Physical Development Fine motor skills

 Hold a pencil effectively in preparation for fluent writing using the tripod grip in almost all cases;

 Use a range of small tools, including scissors, paint brushes and cutlery;

- Expressive art and Design Creating with Materials
 Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;
- Share their creations, explaining the process they have used;

NC Objective - Coverage	Skills	Knowledge	Vocabulary	
When designing and making, pupils should be taught to: Design 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 Make Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] Select from and use a wide range of materials and components, including construction materials, textiles and	Plan and communicate ideas Draw on their own experience to help generate ideas. Suggest ideas and explain what they are going to do. Make (technical knowledge) Make their design using appropriate techniques. With help, measure, mark out, cut and shape a range of materials. Select and use appropriate processes and tools. Evaluate Evaluate their product by discussing how well it works in relation to the purpose.	To list the features of Christmas decoration and what makes them interesting. To generate ideas from their own experiences To understand the sensory qualities of materials. To understand the working characteristics of materials affect the way they are used To understand how to join material by stitching	Decorations Stronger Material Stitch Whip stitch Sewing Needle Thread Sew Tools Safely Join Change Sensory	
ingredients, according to their characteristics	Assessment of Skills	Assessment of Knowledge	Plan	
Evaluate Explore and evaluate a range of existing products Evaluate their ideas and products against design criteria	Draw on their own experiences to help generate ideas Make their design using appropriate techniques	I know that Christmas decorations need to be bright and colourful to be appealing. I know how to draw a picture of what I want my design to look like.	Evaluate Design Make Product	
Technical knowledge To build structures, exploring how they can be made stronger, stiffer and more stable To explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.				

Design and evaluate a lighthouse	Topic: An Island Home	Term: Spring 2	Year: 1
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Foundations of previous learning:

Physical Development – Fine motor skills
Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases;
- Use a range of small tools, including scissors, paint brushes and cutlery; - Begin to show accuracy and care when drawing. Expressive art and Design Creating with Materials

- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;
 Share their creations, explaining the process they have used;
 Make use of props and materials when role playing characters in narratives and stories.

When designing and making, pupils should be taught to: Design Design 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, mode-ups and, where appropriate, information and communication technology Make Select from and use a range of tools and equipment to perform practical tasks [for example, 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 Evaluate Explore and evaluate a range of existing products Evaluate their ideas and products against design criteria Skills Knowledge To analyse the features of a lighthouse. To plan and design their own model of a lighthouse. To plan and design their own model of a lighthouse design. To plan and design their own model of a lighthouse design. To plan and design their own model of a lighthouse design. To plan and design their own model of a lighthouse design. To plan and design their own model of a lighthouse design. To plan and design their own model of a lighthouse design. To use the correct techniques when creating their lighthouse. To use the correct techniques when creating their design. To use the correct techniques with design. To use the correct techniques to read and paragre of their product against their design using appropriate techniques. With help, measure, mark out, cut and shape a range of materials and components together using a variety of temporary methods, e.g. glue or masking tape. Use simple finishing techniques to improve the appearance of their product. Evaluate Evaluate Evaluate their ideas and products against design criteria Assessment of Skills Suggest ideas and explain what they are going to do. And their design used and explain span findings from their research. To plan and design their own design criteria lighthouse. To plan and design their own desig	to create their Generate Research Measure
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 Make Select from and use a range of tools and equipment to perform practical tasks [for example, 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 Evaluate Evaluate Evaluate Explore and evaluate a range of existing products Evaluate their ideas and products against design criteria Suggest ideas and explain what they are going to do. Model their ideas in card and paper. Develop their design ideas applying findings from their research. Make (technical knowledge) Make their design using appropriate techniques. With help, measure, mark out, cut and shape a range of materials and components together using a variety of temporary methods, e.g. glue or masking tape. Use simple finishing techniques to improve the appearance of their product. Evaluate Evaluate Evaluate Evaluate their ideas and products against design criteria Suggest ideas and explain what they are going to do. Model their ideas in card and paper. To identify appropriate materials to be used to creat design. To identify appropriate techniques when creating their lighthouse. To evaluate their finished product against their design using appropriate techniques. With help, measure, mark out, cut and shape a range of materials and components together using a variety of temporary methods, e.g. glue or masking tape. Use simple finishing techniques to improve the appearance of their product. Evaluate Evaluate Evaluate Evaluate their ideas and explain what they are going to do. I know why I have chosen certain materials for my	thouse. Features to create their Generate Research Measure
Evaluate their ideas and products against design criteria Assessment of Skills Assessment of Knowledge Suggest ideas and explain what they are going to do I know why I have chosen certain materials for my	9
Suggest ideas and explain what they are going to do I know why I have chosen certain materials for my	70
Technical knowledge To build structures, exploring how they can be made stronger, stiffer and more stable To explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. Assemble join and combine materials and components together using a variety of temporary methods eg. glue or masking tape. Iighthouse and I can tell an adult my reasons. I know what I would change next time about my promote the components together using a variety of temporary methods eg. glue or masking tape.	For my

Design and evaluate a sandwich	Topic: At the Palace	Term: Summer 2	Year: 1
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Foundations of previous learning:

- Physical Development Fine motor skills

 Use a range of small tools, including scissors, paint brushes and cutlery; Begin to show accuracy and care when drawing. Expressive art and Design Creating with Materials
- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; Share their creations, explaining the process they have used;

NC Objective - Coverage	Skills	Knowledge	Vocabulary
When designing and making, pupils should be taught to:	Plan and communicate ideas	To know the method of making a sandwich.	Design
	Draw on their own experience to help generate ideas.	To know how to make a balanced sandwich.	Make
Design	Suggest ideas and explain what they are going to do.	To know how to choose suitable ingredients for their	Tools
Design purposeful, functional, appealing products for	Identify a target group for what they intend to design and	target audience.	Suitable
themselves and other users based on design criteria	make.	To know how to tools safely.	Modifications
Generate, develop, model and communicate their ideas	Develop their design ideas applying findings from their	To understand why hands, surfaces and tools need to be	Appealing
through talking, drawing, templates, mock-ups and, where	research.	clean when making their sandwich (food hygiene).	Effective
appropriate, information and communication technology			Balanced
•	Make (technical knowledge)		Ingredients
Make	Make their design using appropriate techniques.		Knife
Select from and use a range of tools and equipment to	Assemble, join and combine materials and components		Spoon
perform practical tasks [for example, cutting, shaping,	together using a variety of temporary methods		Clean
joining and finishing]	Use simple finishing techniques to improve the		Hygiene
Select from and use a wide range of materials and	appearance of their product.		Germs
components, including construction materials, textiles and			Surfaces
ingredients, according to their characteristics	Evaluate		
	Evaluate their product by discussing how well it works in		
Evaluate	relation to the purpose.		
Explore and evaluate a range of existing products	Evaluate their product by asking questions about what		
Evaluate their ideas and products against design criteria	they have made and how they have gone about it.		
Taske is all less colle des	Assessment of Skills	Assessment of Knowledge	
Technical knowledge	Identify a target group for what they intend to design and	I know to make a sandwich I need two slices of bread and	
To build structures, exploring how they can be made	make	some filling.	
stronger, stiffer and more stable To explore and use mechanisms [for example, levers,	Use simple finishing techniques to improve the	I know that when I use the knife I must hold the handle	
	appearance of their product	and not the blade.	
sliders, wheels and axles], in their products.	Evaluate their product by discussing how well it works in	and not the blade.	
	relation to the purpose		

Structures (houses) Topic: Out and about Term: Autumn 1 Year: 1/2 Cycle B

Foundations of previous learning:

Physical Development – Fine motor skills

- Use a range of small tools, including scissors, paint brushes and cutlery; Begin to show accuracy and care when drawing. Expressive art and Design Creating with Materials
- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;
- Share their creations, explaining the process they have used;

NC Objective - Coverage	Skills	Knowledge	Vocabulary
When designing and making, pupils should be	<u>Year 1</u>	Know the purpose of houses.	House
taught to:	Plan and communicate ideas	Know the materials they were built from in 1666.	Support
	Suggest ideas and explain what they are going to do.	Identifying the problems with Tudor Houses.	Design
Design	Model their ideas in card and paper.	Follow the; analyse, design, make and evaluate process in making their	Make
Design purposeful, functional, appealing products	Make (technical knowledge)	Tudor Houses.	Tools
for themselves and other users based on design	With help, measure, mark out, cut and shape a range of materials.		Suitable
criteria	Assemble, join and combine materials and components together using a variety of		Materials
	temporary methods, e.g. glue or masking tape.		Properties
Make	Select and use appropriate processes and tools.		Strength
Select from and use a range of tools and	Evaluate		Stronger
equipment to perform practical tasks [for	Evaluate their product by discussing how well it works in relation to the purpose.		Weaker
example, cutting, shaping, joining and finishing]			Modifications
Select from and use a wide range of materials and	Year 2		Cut
components, including construction materials,	Plan and communicate ideas		Join
textiles and ingredients, according to their	Develop their design ideas through discussion, observation, drawing and modelling.		Appealing
characteristics	Identify a purpose for what they intend to design and make.		Effective
	Identify simple design criteria.		
Evaluate	Making simple drawings and label parts.		
Evaluate their ideas and products against design	Make (technical knowledge)		
criteria	Begin to select tools and materials use appropriate vocabulary to describe and name them.		
Technical knowledge	Measure, cut and score with some accuracy.		
To build structures, exploring how they can be	Use tools safely and appropriately.		
made stronger, stiffer and more stable	Evaluate		
-	Evaluate against their design criteria.		
	Assessment of Skills	Assessment of Knowledge	
	Year 1	I know how to model my idea using card.	
	Suggest ideas and explain what they are going to do.	I know how to join my materials together using glue or tape.	
	Select and use appropriate processes and tools.		
	Year 2		
	Develop their design ideas through discussion, observation, drawing and modelling		
	Begin to select tools and material using the appropriate vocabulary to describe and		
	name them		

Foundations of previous learning:

Physical Development – Fine motor skills

- Use a range of small tools, including scissors, paint brushes and cutlery; Begin to show accuracy and care when drawing. Expressive art and Design Creating with Materials
- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; Share their creations, explaining the process they have used;

NC Objective - Coverage	Skills	Knowledge	Vocabulary
When designing and making, pupils should be	Year 1	Know the purpose of boats.	Boat
taught to:	Plan and communicate ideas	Know the materials they could be built from.	Waterproof
	Draw on their own experience to help generate ideas.	To know what properties the boat needs to have.	Solid
Design	Suggest ideas and explain what they are going to do.	Follow the; analyse, design, make and evaluate process in making their	Strong
Design purposeful, functional, appealing products	Model their ideas in card and paper.	boats.	Join
for themselves and other users based on design	Make (technical knowledge)		Strengthen
criteria Generate, develop, model and	Make their design using appropriate techniques.		Texture
communicate their ideas through talking, drawing,	With help, measure, mark out, cut and shape a range of materials.		Shape
templates, mock-ups and, where appropriate,	Assemble, join and combine materials and components together using a variety of		Smooth
information and communication technology	temporary methods, e.g. glue or masking tape.		Purpose
•	Evaluate		Colour
Make	Evaluate their product by asking questions about what they have made and how they		Material
Select from and use a range of tools and	have gone about it.		Suitable
equipment to perform practical tasks [for			Join
example, cutting, shaping, joining and finishing]	Year 2		Stable
Select from and use a wide range of materials and	Plan and communicate ideas		Stiff
components, including construction materials,	Generate ideas by drawing on their own and other people's experiences.		
textiles and ingredients, according to their	Develop their design ideas through discussion, observation, drawing and modelling.		
characteristics	Identify a purpose for what they intend to design and make.		
	Identify simple design criteria.		
Evaluate	Making simple drawings and label parts.		
Evaluate their ideas and products against design	Make (technical knowledge)		
criteria	Measure, cut and score with some accuracy.		
	Assemble, join and combine materials in order to make a product.		
Technical knowledge	Choose and use appropriate finishing techniques to improve the look of a product.		
To build structures, exploring how they can be	Evaluate		
made stronger, stiffer and more stable	Evaluate their products as they are developed identifying strengths and modifications.		
	Assessment of Skills	Assessment of Knowledge	
	Year 1	I have designed/planned to use because	
	Draw on their own experience to help generate ideas.	I joined parts together using because	
	Assemble, join and combine materials and components together using a variety of		
	temporary methods, e.g. glue or masking tape.		
	Year 2		
	Generate ideas by drawing on their own and other people's experiences		
	Assemble, join and combine materials in order to make a product		

Design and evaluate a bird feeder	Topic: Florence Nightingale	Term: Summer 1	Year: 1/2 Cycle B
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Foundations of previous learning:

- Physical Development Fine motor skills

 Use a range of small tools, including scissors, paint brushes and cutlery; Begin to show accuracy and care when drawing. Expressive art and Design Creating with Materials
- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; Share their creations, explaining the process they have used;

NC Objective - Coverage	Skills	Knowledge	Vocabulary
When designing and making, pupils should be	Year 1	To analyse the features of a bird feeder.	birdfeeder
aught to:	Plan and communicate ideas	To plan and design their own bird feeder.	Features
	Suggest ideas and explain what they are going to do.	To identify appropriate materials to be used to create their design.	Generate
Design	Identify a target group for what they intend to design and make.	To use the correct techniques when creating their bird feeder.	Research
Design purposeful, functional, appealing	Develop their design ideas applying findings from their research.	To evaluate their finished product against their design.	Measure
products for themselves and other users	Make (technical knowledge)	To identify their own strengths and areas of development.	Technique
pased on design criteria Generate, develop,	Make their design using appropriate techniques.		Cut
model and communicate their ideas through	With help, measure, mark out, cut and shape a range of materials.		Material
alking, drawing, templates, mock-ups and,	Assemble, join and combine materials and components together using a variety of		Join
where appropriate, information and	temporary methods, e.g. glue or masking tape.		Combine
communication technology	Select and use appropriate processes and tools.		Glue
	Use simple finishing techniques to improve the appearance of their product.		Finishing
Make	Evaluate		Evaluate
Select from and use a range of tools and	Evaluate their product by discussing how well it works in relation to the purpose.		Purpose
equipment to perform practical tasks [for	Evaluate their product by asking questions about what they have made and how they		Mould
example, cutting, shaping, joining and	have gone about it.		
inishing]	Year 2		
Select from and use a wide range of materials	Plan and communicate ideas		
and components, including construction	Develop their design ideas through discussion, observation, drawing and modelling.		
materials, textiles and ingredients, according	Identify a purpose for what they intend to design and make.		
to their characteristics	Identify simple design criteria.		
	Making simple drawings and label parts.		
Evaluate	Make (technical knowledge)		
Explore and evaluate a range of existing	Begin to select tools and materials use appropriate vocabulary to describe and name		
oroducts	them.		
Evaluate their ideas and products against	Assemble, join and combine materials in order to make a product.		
design criteria	Choose and use appropriate finishing techniques to improve the look of a product.		
	Evaluate		
echnical knowledge	Evaluate against their design criteria.		
o build structures, exploring how they can	Evaluate their products as they are developed identifying strengths and modifications.		
be made stronger, stiffer and more stable	Talk about their ideas saying what they like and dislike about them.		
	Assessment of Skills	Assessment of Knowledge	
	Year 1	Bird feeders need to be lightweight and strong.	
	Identify a target group for what they intend to design and make.	I have made my bird feeder strong by	
	Use simple finishing techniques to improve the appearance of their product.		
	Evaluate their product by discussing how well it works in relation to the purpose.		
	Year 2		
	Identify a purpose for what they intend to design and make		
	Choose and use appropriate finishing techniques to improve the look of a product		
	Evaluate their products as they are developed identifying strengths and modifications	1	

Food Technology (Stone Age Menu)	Topic: Land Before Time	Year: 3	Term: Autumn 1
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Foundations of previous learning:
Children will have used basic food handling hygiene practices and personal hygiene.

NC Objective - Coverage	Skills	Knowledge	Vocabulary
Pupils should be taught to: 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 Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed	Plan and communicate ideas Generate ideas for an item, considering its purpose and the user/s. Identify a purpose and establish criteria or a successful product. Plan the order of their own work before starting. Explore, develop and communicate design proposals by modelling ideas. Make drawings with labels when designing. Make (technical knowledge) Work safely and accurately with a range of simple tools. Think about their ideas as they make progress and be willing to change things to improve their work. Evaluate Evaluate their product against the original design criteria.	To know what ingredients I will need to make a meal using Stone Age ingredients. To be able to select the appropriate cookery tools. To be able to measure out the correct amount of each ingredient. To know how to cut and mix ingredients. To know how to prepare food in a hygienic and safe manner. To follow a design brief for a Stone Age Menu.	Equipment Utensils Technique Ingredients Texture Taste Appearance Smell Cook Healthy/varied diet Hygiene Safety
	Assessment of Skills	Assessment of Knowledge	
	Generate ideas for an item, considering its purpose and the user/s. Work safely and accurately with a range of simple tools.	The ingredients that I will be using to make my meal are The tools that I will be using are To ensure that I am hygienic I have washed my hands (and tied back my hair). The strengths of my product are To improve my product, I would	

Structures (Earthquake proof building)

Topic: Tremors

Year: 3

Term: Spring 1

Foundations of previous learning:

Year 3 children will have generated ideas by drawing on their own and other people's experiences.

When designing and making, pupils should be taught to: Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Make (Exchange of tools and current to perform practical tasks accurately Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aconsider the views of others to improve their work. Evaluate their ideas their ideas and products against their own design criteria and consider the views of others to improve their work. Understand how key events and individuals in design and technology have helped shape the world Understand how key events and individuals in design and technology have helped shape the world Paper to the form the product of the product of the product against the original design criteria. Skills Knowledge Iknow that there are buildings that have been designed to be earthquake proof. I know that there are buildings that have designed to be earthquake proof. I can deflet you an example of an earthquake proof building. I know that there are buildings that have designed to be earthquake proof. I can deflet you an example of an earthquake proof building. I can discuss how I might strengthen a building. I know that there are buildings that have designed to be earthquake proof building. I know that there are buildings that have designed to be earthquake proof. I can discuss how I might strengthen a building. I know that there are buildings that have design for an earthquake proof building. I know that there are buildings that have design for an earthquake proof building. I know that there are buildings that have design for an earthquake proof building. I know that there are buildings that have design for an earthquake proof building. I know that there are buildings that have design for an earthquake proof building. I know that there are buil		Unit Learning		
to: Generate ideas for an item, considering its purpose and the user/s. Identify a purpose and establish criteria or a successful product. Plan the order of their own work before starting. Make (Select from and use a wide range of tools and equipment to perform practical tasks accurately Select from and use a wide range of materials, and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate Evaluate Evaluate (Henrich and outse a wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate Evaluate their product against the original design criteria. Evaluate (Lentify a purpose and establish criteria for a successful product. Make (Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate Evaluate (Lentify a purpose and establish criteria for a successful product. Make (Letchrical knowledge) Evaluate (Lentify a purpose and establish criteria for a successful product. Measure, mark out, cut, score and assemble components with more accuracy. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Understand how key events and individuals in design and technology have helped shape the world Technological Knowledge Apply their understanding of how to strengthen, Technological Knowledge Apply their understanding of how to strengthen,	NC Objective - Coverage	Skills	Knowledge	Vocabulary
stiffen and reinforce more complex structures	to: Design Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Make Select from and use a wide range of tools and equipment to perform practical tasks accurately Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Understand how key events and individuals in design and technology have helped shape the world Technological Knowledge	Generate ideas for an item, considering its purpose and the user/s. Identify a purpose and establish criteria or a successful product Plan the order of their own work before starting. Make (technical knowledge) Select tools and techniques for making their product. Measure, mark out, cut, score and assemble components with more accuracy. Think about their ideas as they make progress and be willing to change things to improve their work. Evaluate Evaluate their product against the original design criteria. Disassemble and evaluate familiar products. Assessment of Skills Identify a purpose and establish criteria for a successful product. Measure, mark out, cut, score and assemble components with more accuracy.	designed to be earthquake proof. I can tell you an example of an earthquake proof design. I can produce a design for an earthquake proof building. I can discuss how I might strengthen a building. Assessment of Knowledge Examples of earthquake proof buildings are the Transamerica pyramid (San Fransisco), Bejing National Stadium, the Burj Khalifa (Dubai). You can strengthen a building by using shock	Architect Building Design Strengthen Withstand Shock absorbers Cross-bracing

Choosing and combining materials (textiles) (E	gyptian cuffs)	Topic: The Boy King		Year: 3		Term: Summer 1		
Foundations of previous learning: Year 3 children will have evaluated against design criteria and	d combined materials to make a product.							
	Unit Learning							
NC Objective - Coverage	Skills		Knowledge		,	Vocabulary		
When designing and making, pupils should be taught to: Design 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, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Make Select from and use a wider range of tools and equipment to perform practical tasks accurately Select from and use a wider range of materials and components, including construction materials, textiles and instruction processed in the best first table as a second to a seco	Plan and communicate ideas Generate ideas for an item, considering its pi Identify a purpose and establish criteria or a Plan the order of their own work before starl Explore, develop and communicate design pi ideas. Make drawings with labels when designing. Make (technical knowledge) Select tools and techniques for making their Measure, mark out, cut, score and assemble accuracy. Think about their ideas as they make progres change things to improve their work. Use finishing techniques to strengthen and ir of their product using a range of equipment Measure, tape or pin, cut and join fabric with Evaluate Evaluate their product against the original de	product. components with more as and be willing to mprove the appearance including ICT. a some accuracy	n explain the purpose of my Egypt n label parts of my design and exp e choose to include them. n explain why I have chosen a mat n identify aspects of my design tha roved upon.	olain why I M N terial. Ju y design. T at can be A T R N A D E P	Design Method Material oin Fechnique Product Audience Fool Ruler Measure Accurately Design brief Evaluate Purpose Assemble			
ingredients, according to their functional properties and aesthetic qualities	Assessment of Sk	ills	Assessment of Knowled	dge				
Evaluate Investigate and analyse a range of existing products Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Understand how key events and individuals in design and technology have helped shape the world	Think about their ideas as they make progres change things to improve their work. Explore, develop and communicate design prideas.	The a With	purpose of an Egyptian cuff is audience of my product is n my design, l liked uld improve my design by					
Technological Knowledge Apply their understanding of how to strengthen, stiffen and reinforce more complex structures								

Understand and use mechanical systems in their products

Chocolate bar wrappers:	Topic: South America	Term: Autumn 2	Year: 4
Choosing appropriate materials and tools for purpose			

Foundations of previous learning:

Year 3 children will have generated ideas by drawing on their own and other people's experiences.

NC Objective - Coverage	Skills	Knowledge	Vocabulary
When designing and making, pupils should be taught to: Design 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, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Make Select from and use a wider range of tools and equipment to perform practical tasks Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate Investigate and analyse a range of existing products Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Technological Knowledge Apply their understanding of how to strengthen, stiffen and reinforce more complex structures	Plan and communicate ideas Generate ideas, considering the purposes for which they are designing. Make labelled drawings from differing views showing specific features. Evaluate product and identify criteria that can be used for their own designs. Make (technical knowledge) Select appropriate tools and techniques for making their product. Evaluate Evaluate their work both during and at the end of the assignment. Assessment of Skills Generate idea considering the purpose for which they are designing. Select appropriate tools and techniques for making their product.	I can identify who the audience of my product is. I can explain why I have selected materials. I can evaluate my design. I can use other products and their packaging to inform my own design. Assessment of Knowledge I know how to select materials to ensure my product is suitable and the chocolate won't melt inside. I know how to use real-life products to inform the design of my Fairtrade chocolate packaging.	Fairtrade Chocolate Attract Packaging Design Product Label Material Product Evaluate Inform Audience

Magonel: materialsTopic: Rotten RomansTerm: Spring 2Year: 4

Foundations of previous learning:

Children will have assembled, joined and combined materials in order to make a product.

Children will have measured, marked out, cut, scored and assembled components with more accuracy.

NC Objective - Coverage	Skills	Knowledge	Vocabulary
When designing and making, pupils should be taught to: Design Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Make Select from and use a wider range of tools and equipment to perform practical tasks accurately	Plan and communicate ideas Generate ideas, considering the purposes for which they are designing. Make labelled drawings from differing views showing specific features. Evaluate product and identify criteria that can be used for their own designs. Develop a clear idea of what has to be done, planning how to use materials, equipment and techniques. Make (technical knowledge) Select appropriate tools and techniques for making their product. Measure, mark out, cut and shape a range of materials using appropriate tools, equipment and techniques. Join and combine materials accurately in temporary and permanent ways. Evaluate Evaluate their products carrying out appropriate tests.	To know what a mangonel is. To know what the purpose of the mangonel is. To know what the design brief of the mangonel is. To know what materials will be suitable to construct their mangonel.	Mangonel Purpose Design Ancient Design Brief Construct Materials Tools
Evaluate	Assessment of Skills	Assessment of Knowledge	
Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Understand how key events and individuals in design and technology have helped shape the world	Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempt fails. Join and combine materials and components accurately in temporary and permanent ways.	The mangonel is a type of medieval siege weapon used for throwing projectiles at a castle's wall. The mangonel was used by the Roman army and needs to be able to throw an object over a distance. To create a functioning, suitable mangonel, I will choose strong materials such as	
Technological Knowledge Understand and use mechanical systems in their products			

Food Technology – Viking bread	Topic: Vicious Vikings	Year: 4	Term: Summer 2
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Foundations of previous learning:

Children will have used basic food handling hygiene practices and personal hygiene.

NC Objective - Coverage	Skills	Knowledge	Vocabulary
Pupils should be taught to: 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 Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed	Plan and communicate ideas Develop a clear idea of what has to be done, planning how to use materials, equipment and Evaluate product and identify criteria that can be used for their own designs. Make (technical knowledge) Select appropriate tools and techniques for making their product. Measure, mark out, cut and shape a range of materials using appropriate tools, equipment and techniques Evaluate Evaluate their products carrying out appropriate tests	To know what ingredients I will need to make bread. To be able to select the appropriate cookery tools. To be able to measure out the correct amount of each ingredient. To know how to knead. To know how to prepare food in a hygienic and safe manner. To follow a design brief for the bread's packaging. To know the strengths and weaknesses of their design and product.	Mix Cut Hygiene Safe Clean Purpose Success criteria Design Success Improvements Ingredients Measurement Tools
	Assessment of Skills Evaluate a product and identify criteria that can be used for their own designs. Measure, mark out, cut and shape a range of materials using appropriate tools, equipment and techniques. Evaluate their products carrying out appropriate tests.	Assessment of Knowledge To make bread you need flour, yeast, salt and water. Kneading is the process of working a dough mixture to form a smooth and cohesive mass. To ensure that I am hygienic I have washed my hands (and tied back my hair).	

Food Technology Topic: World War II Term: Autumn 2 Year: 5

Foundations of previous learning:

Children will have demonstrated hygienic food preparation and storage.

NC Objective - Coverage	Skills	Knowledge	Vocabulary
Pupils should be taught to: 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 Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed	Plan and communicate ideas Generate ideas through brainstorming and identify a purpose for their product. Draw up a specification for their design. Make (technical knowledge) Weigh and measure accurately Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens. Evaluate Evaluate a product against the original design specification	I can weigh out ingredients accurately according to the recipe. I can explain how to prepare food safely and hygienically.	Hygiene Baking Safety Cooking Ingredients Scales Roasting Grams Frying
	Assessment of Skills Generate ideas through brainstorming and identify a purpose for their product. Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to ovens.	Assessment of Knowledge I know that before preparing food that I should wash my hands and clean my work surface to avoid bacteria. I know how to weigh out my ingredients correctly so that the recipe ratio is correct resulting in a quality product.	

Structures: Bridge Building Topic: Around the World Term: Spring 1 Year: 5

Foundations of previous learning:

Children will have used finishing techniques to strengthen and improve the appearance of their product using a range of equipment.

NC Objective - Coverage	Skills	Knowledge	Vocabulary
When designing and making, pupils should be taught to: Design 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 Make Select from and use a wider range of tools and equipment to perform practical tasks Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities	Plan and communicate ideas Generate ideas through brainstorming and identify a purpose for their product Draw up a specification for their design. Use results of investigations and information sources including ICT when developing design ideas Make (technical knowledge) Select appropriate materials, tools and techniques. Measure and mark out accurately Evaluate Evaluate own product and others and gain evaluation from others on product	Design and build bridge – Suez canal. To know which materials would be suitable based on their properties. To know how to join materials together so that they suit the purpose. (strength) Know the strongest way to join materials. Know that a triangle shape is the strongest shape to use when building a structure.	Research Design criteria Product Purpose Strength Joining Materials Properties Functional Construct Measure Accuracy
Evaluate Investigate and analyse a range of existing products Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Understand how key events and individuals in design and technology have helped shape the world Technical knowledge Apply their understanding of how to strengthen, stiffen and reinforce more complex structures	Assessment of Skills Use results of investigations and information sources including ICT when developing design ideas Measure and mark out accurately	Assessment of Knowledge I know how to draw a labelled diagram of my planned design. I know that a triangle is the strongest shape to use in building my bridge.	

 Moving toys - Cams
 Topic: Meet The Greeks
 Term: Summer 1
 Year: 5

Foundations of previous learning:

Children will have joined and combined materials and components accurately in temporary and permanent ways.

NC Objective - Coverage	Skills	Knowledge	Vocabulary
When designing and making, pupils should be taught to: Design Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Make Select from and use a wider range of tools and equipment to perform practical tasks Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately	Plan and communicate ideas Generate ideas through brainstorming and identify a purpose for their product. Communicate ideas in different ways Make (technical knowledge) Select appropriate materials, tools and techniques. Cut and join with accuracy to ensure a good quality finish to the produce Measure and mark out accurately. Evaluate Evaluate own product and others and gain evaluation from others on product	To design a moving toy using cams. To understand how cams and followers work	Cams – snail, round, ellipse, hexagon, eccentric Followers Movement Slider Axle Frame Structure Handle Linear Rotary
Evaluate Investigate and analyse a range of existing products Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Technical knowledge Understand and use mechanical systems in their products	Assessment of Skills Communicate ideas in different ways Cut and join with accuracy to ensure a good quality finish to the produce Evaluate own product and others and gain evaluation from others on product	Assessment of Knowledge I know that a cam is used to make a toy move. I know that the follower is the vertical moving part of a toy. I know how to use my design to construct my final product.	

Sewing Topic: Great Britains Term: Autumn 2 Year: 5/6 Cycle B

Foundations of previous learning:

Children will have sewn using a range of different stitches.

NC Objective - Coverage	Skills	Knowledge	Vocabulary
When designing and making, pupils should be taught	Year 5	To draw a design specification	Design
to:	Plan and communicate ideas	How to complete a running stitch with accuracy	Specification
	Draw up a specification for their design.	I can draw a detailed, labelled design of the product I want to make. I	Running Stitch
Design	Make (technical knowledge)	know that a running stitch is a continuous stitch around the outside of	Blanket Stitch
Ise research and develop design criteria to inform	Select appropriate materials, tools and techniques.	the product.	Needle
he design of innovative, functional, appealing	Measure and mark out accurately.		Threading
roducts that are fit for purpose, aimed at particular	Evaluate		Material
ndividuals or groups	Evaluate a product against the original design specification.		Accuracy
			Template
Лake			Product
select from and use a wider range of tools and	Year 6		Evaluate
quipment to perform practical tasks accurately	Plan and communicate ideas		
elect from and use a wider range of materials and	Develop a design specification.		
omponents, including construction materials,	Make (technical knowledge)		
extiles and ingredients, according to their functional	Select appropriate tools, materials, components and techniques.		
properties and aesthetic qualities	Pin, sew and stich material together to create a product.		
	Achieve a quality product.		
valuate	Make modifications as they go along		
valuate their ideas and products against their own	Evaluate		
lesign criteria and consider the views of others to	Evaluate against their original criteria and suggest ways that their		
mprove their work	product could be improved.		
	Assessment of Skills	Assessment of Knowledge	
	Year 5	I can draw a detailed, labelled design of the product I want to make.	
	Draw up a specification for their design.	I know that a running stitch is a continuous stitch around the outside	
	Measure and mark out accurately.	of the product.	
	Year 6		
	Develop a design specification.		
	Pin, sew and stich material together to create a product		

Electrical systems Topic: Evolution of technology Term: Spring 2 Year: 5/6 Cycle B

Foundations of previous learning:

Children will have made labelled drawings from differing views showing specific features. Children will have made moving toys with cams. Children will have selected appropriate materials, tools and techniques, cut and join with accuracy to ensure a good quality finish to the produce. Children will have measured and marked out their toy design accurately.

NC Objective - Coverage	Skills	Knowledge	Vocabulary
When designing and making, pupils should be taught to: Design Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Make Select from and use a wider range of tools and equipment to perform practical tasks accurately Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate Investigate and analyse a range of existing products Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Technical knowledge Understand and use electrical systems in their products	Year 5 Plan and communicate ideas Generate ideas through brainstorming and identify a purpose for their product. Communicate ideas in different ways, e.g. drawing to scale, cross sectional drawings. Make (technical knowledge) Cut and join with accuracy to ensure a good-quality finish to the product. Evaluate Evaluate a product against the original design specification. Year 6 Plan and communicate ideas Communicate their ideas though detailed labelled drawings, annotated sketches, exploded diagrams, Make (technical knowledge) Select appropriate tools, materials, components and techniques. Make modifications as they go along. Achieve a quality product Assemble components to make working models Evaluate Evaluate against their original criteria and suggest ways that their product could be improved. Assessment of Skills Year 5 Communicate ideas in different ways, e.g. drawing to scale, cross sectional drawings. Cut and join with accuracy to ensure a good-quality finish to the product. Year 6 Communicate their ideas through detailed labelled drawings, annotated sketches and exploded diagrams. Achieve a quality product	I can design a burglar alarm within a model. I can create a diagram with labels. I can annotate my sketches and exploded diagrams to further explain my ideas. I know how to incorporate a working circuit into my design. Assessment of Knowledge I can annotate my sketches and exploded diagrams to further explain my ideas. I know how to make a working electrical system.	Diagram Sketch Annotation Exploding diagram Purpose Product Modification Tools Material Electrical Circuit Switch Buzzer alarm Motor Cells Wires Structure

Programming Topic: Food of the Gods Term: Summer 2 Year: 5/6 Cycle B

Foundations of previous learning: Generate ideas through brainstorming and identify a purpose for their product. Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to ovens. How do you use a knife safely? How do you read the scale on the scales? Can you weigh out ___g of ___? How do you ensure you are preparing food hygienically?

NC Objective - Coverage	Skills	Knowledge	Vocabulary	
To apply their understanding of computing to program, monitor and control their products.	Year 5 Plan and communicate ideas Use the results of investigations and information sources including ICT when developing design ideas. Make (technical knowledge) Select appropriate materials, tools and techniques. Evaluate Evaluate a product against the original design specification. Evaluate own product and others and gain evaluation from others on product Year 6 Plan and communicate ideas Develop a design specification. Sketch or model alternative ideas. Explore develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways e.g. prototypes and pattern pieces. Make (technical knowledge) Assemble components to make working models. Achieve a quality product. Make modifications as they go along Evaluate Evaluate against their original criteria and suggest ways that their product could	To know how to create a design specification. To know how to program a robot to achieve design specification. I know how to monitor the robot's progress. I know how to control variables to achieve the desired outcome of the robot.	Robotics Design Design specification Annotations Model Prototype Programming Variable Autonomy Control Control System Debugging Hardware Software Implement Manipulator Micro Controller Orientation Sensors	
	be improved. Assessment of Skills	Assessment of Knowledge		
	Vear 5 Use the results of investigations and information sources including ICT when developing design ideas. Select appropriate materials, tools and techniques. Evaluate own product and others and gain evaluation from others on product Year 6 Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways Make modifications as they go along Evaluate against their original criteria and suggest ways that their product could be improved	I know how to program a robot to achieve design specification. I know how to control variables to achieve the desired outcome of the robot.		