

DT Knowledge Progression

Y	Mechanisms and Mechanical Structures	Textiles	Food	Construction
N	To begin to safely use and explore a variety of materials, tools and techniques, experimenting with colour and texture	- To begin to experiment with materials (CWM) - Begin to explore materials and decide what to make. - Decide which materials to use to express ideas - Joins construction pieces together to build and balance	To begin to use tools safely with an adult To talk about foods that are healthy	- Uses various construction materials. - Beginning to construct, stacking blocks vertically and horizontally, making enclosures and creating spaces - Joins construction pieces together to build and balance.
R	- Constructs with a purpose in mind, using a variety of resources. - Uses simple tools and techniques competently and appropriately. - Selects appropriate resources and adapts work where necessary. - Selects tools and techniques needed to shape, assemble and join materials they are using. ELG: They safely use and explore a variety of materials, tools and techniques, experimenting with design, form and function. CWM	- Uses simple tools and techniques competently and appropriately. - Selects appropriate resources and adapts work where necessary ELG: They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. CWM	- Uses simple tools and techniques competently and appropriately. - Selects appropriate resources and adapts work where necessary ELG: They safely use and explore a variety of materials, tools and techniques CWM	- Constructs with a purpose in mind, using a variety of resources. - Uses simple tools and techniques competently and appropriately. - Selects appropriate resources and adapts work where necessary. - Selects tools and techniques needed to shape, assemble and join materials they are using. ELG: They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. CWM
1	Drawbridge for a castle I know the history and purpose of a drawbridge	Carnival hand puppet for a child I know what a puppet is and discuss the history and purpose of puppetry including the role of the puppeteer	Ice Lollies for a seaside picnic I know what an ice lolly is and explain when and why we eat ice lollies	

	- I know the design criteria required to make a functional drawbridge through looking at an existing design - I know how to work safely when working with tools - I know how to make a design for a drawbridge using talk and drawings - I know that designs can be adapted	- I know the design criteria for a hand puppet - I know how to design a hand puppet - I know how to mark out, cut and shape materials safely and accurately with support - I know how to join two pieces of fabric together using a needle and thread - I know how to improve the appearance of my product	- I understand the principles of a healthy diet - I know that food comes from plants or animals - I know how to design a product - I know how to work safely and hygienically - I can name some basic cooking tools	
2	<u>Linkage and Levers card</u> - I know what a lever is and can discuss the function of a lever - I know that levers can be used to animate books and cards - I know how to design a product - I know how to mark and measure to the nearest centimetre		<u>Salad</u> - I know where food comes from - I know the principles of a healthy diet - I know how to work safely and hygienically - I can assemble my ingredients and cut, peel, grate, measure as appropriate	<u>Free standing bridges</u> - I know the purpose and function of a bridge /annotated images) - I know the history of The Millennium Bridge (architect and engineers) - I know the materials and shapes that make strong and stable structures - I know the design criteria required to make a bridge - I know how to adapt and improve upon a plan
3	<u>Musical Instruments</u> - I can investigate instruments to gain an understanding the different ways they make sounds - I know how to make different sounds		<u>An Iron Age Stew</u> - I know what food is grown, reared or caught - I know that farming makes food production easier - I know how to design a recipe	<u>Bird Feeder</u> - I know the purpose of a bird feeder and how they function - I know how products have been designed, made and

	- I know how to communicate my ideas through discussions and annotated sketches - I know how to create instruments safely from a wide selection of tools - I know how to make music with my instrument		- I know how to work safely and hygienically - I know how to assemble my ingredients and cut, peel, grate and measure to the nearest gram	constructed by exploring existing bird feeders - I know the importance of making sustainable products - I know how to work safely accurately - I know how to strengthen and improve my design
4		<u>Totes Bag</u> - I know the function and design criteria of bag - I know the process of making a bag - I can design a bag considering materials and tools needed. - I know how to join material together using a needle and thread	<u>Pancakes</u> - I know that heating food can cause irreversible changes - I know how to work safely and hygienically - I know how to cut, peel, grate, measure and weigh accurately	<u>Treasure box</u> - I know what a treasure box is used for - I know how to make a 3D net shape with a closing mechanism - I can identify any problems I may have with my design and modify as appropriate could make any future changes to my design
5	<u>Catapult</u> - I understand the function, purpose and history of a catapult - I know the design criteria for a catapult - I can comment on my design making refinements where necessary and understand any improvements that may need to be made and selecting the appropriate materials and tools I will need - I know how to join materials together safely and effectively		<u>Indian Curry</u> - I can talk about what foods would be found in Indonesia discussing why they are different from foods found in the UK - I can explore a range of Indonesian dishes discussing the flavours and commenting on my likes and dislikes - I know how to work safely and hygienically - I know that a recipe can be scaled up or down	<u>Sandals</u> - I can analyse a variety of sandals throughout history and know how different features - I know the design criteria for a sandal - I know what a prototype, and cross-sectional diagram is and how they are used in design - I can identify strengths and weaknesses in a design and understand that

	I can comment on my design making refinements where necessary and understand any improvements that may need to be made		I know and can apply a range of cooking techniques, such as: peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.	improvements can be made if first attempts fail I know how to create my own Sandal using a range of joining techniques
6	<u>Motorised Vehicle</u> - I know what a mechanical system is and can discuss and comment on the function of a mechanical car - I know how an electrical system works - I know how to make a computer aided design - I know how to present my design in more than one way - I know how to use a range of tools accurately and safely - I know how to make and assemble my product making continual refinements - I know how to refine work and techniques as work progresses, continually evaluating the product design	<u>Cushion case</u> - I know what a pattern piece is and can explore pattern pieces for cushion case and discuss various designs - I know how to create fastenings using advanced sewing skills - I know how to enhance my product using sewing skills - I know how to work safely with a needle and thread	<u>Food from around the world</u> - I know where certain foods come from around the world and the reasons behind this - I know that recipes can be adapted and different reasons this might be necessary - I know how to use research to enhance my product - I know how to use cooking skills safely and hygienically - I know how to scale up my recipe in order to feed a large group of people	