



Design and Technology MTP

Intent	Children use creativity and imagination to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world.					
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3	<ul style="list-style-type: none"> Use research and develop a design criteria to design a product that fits a purpose and is aimed at a particular group. Explain positives and negatives of existing products and to begin to think about which products may appeal to their target audience. Generate and develop their ideas through discussion, annotated sketches, plans and pattern pieces. Design their product by carefully planning, annotating and explaining what materials are needs and why. Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately. Children can begin to complete a range of cooking skills including: rolling pastry, chopping ingredients safely, mixing effectively and seasoning thinking about the flavours of their ingredients. They will be taught explicitly how to be safe during food preparation times and will demonstrate this safety knowledge at all times. Understand and apply the principles of a healthy and varied diet. To begin to understand the different food groupings and their nutritional value. Children should understand the value of healthy ingredients as part of a balanced diet and be able to choose which healthy ingredients they would like to include within their recipes. Children will be given the opportunity to taste different fruits and vegetables within designing lessons in order to make informed choices about their ingredients. Understand seasonality and know where and how a variety of ingredients are grown Children understand that ingredients are available at different times of the year and can explain why. Children can also identify where different foods are grown. They will begin to understand that some foods have to imported to the UK due to the weather conditions needed to grow specific fruits and vegetables. Evaluate their ideas and products against their own design criteria and consider the views of other to improve their work. Children can use specific topic vocabulary to evaluate and critique their own product through recognising the strengths and weaknesses of the product. Children can listen to others' views and offer constructive feedback as part of the evaluation process. Prepare and cook a savoury dish using a range of cooking techniques. Children can begin to complete a range of cooking skills including: rolling pastry, chopping ingredients safely, mixing effectively and seasoning thinking about the flavours of their ingredients. <p>Cooking and nutrition – Healthy living week</p>					
	<ul style="list-style-type: none"> Use research and develop a design criteria to design a product that fits a purpose and is aimed at a particular group. Explain positives and negatives of existing products and to begin to think about which products may appeal to their target audience. Generate and develop their ideas through discussion, annotated sketches, plans and pattern pieces. Design their product by carefully planning, annotating and explaining what materials are needs and why. Children will begin to use specific vocabulary taught within lessons as part of their annotation. Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately. Children will learn to independently thread a needle and sew using a basic stitch. Children will be able to create a basic pattern using an appropriate stitch. They will decide which stitches to use to create their design. Select from and use a wider range of materials and components according to their functional properties and desired look. Children will use the correct material for sewing. They will understand the difference a different sized needle and thread can make to a design and be able to chose an appropriate needle and thread needed to complete their own design. Investigate and analyse a range of existing products. Explain positives and negatives of existing products and to begin to think about which products may appeal to their target audience. Children will be able to discuss the stiches that have been used and the choice of materials. They will be able to explain which is their favourite product justifying their response through their annotation. Evaluate their ideas and products against their own design criteria and consider the views of other to improve their work. Children will recognise strengths and weaknesses of their own products and can listen to others views. They will learn to offer constructive feedback in able to effectively evaluate their products created including the areas of improvement. Key vocabulary will be used in their evaluations. <p>Sewing - Egyptians</p>					
	<ul style="list-style-type: none"> Use research and develop a design criteria to design a product that fits a purpose and is aimed at a particular group. Explain positives and negatives of existing products and to begin to think about which products may appeal to their target audience. Children will use topic vocabulary and will decide which materials their product will need in order for the design to be successful. Generate and develop their ideas through discussion, annotated sketches, plans and pattern pieces. Design their product by carefully planning, annotating and explaining what materials are needs and why. Children will begin to use specific vocabulary taught within lessons as part of their annotation. Children will begin to explain why specific materials are needed and what function they complete within their design. Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately. Children will use the correct material for their project. They will be able to use scissors to make precise cuts and make choices about which decorative materials they can use. They will learn how to join their product together so that it is able to move easily. Select from and use a wider range of materials and components according to their functional properties and desired look. Choose an appropriate material for monster's head so it is strong but can move easily. Children will have the correct component to make the hydraulics work effectively and be able to explain the choices they have made and how it has helped their hydraulic design function. Investigate and analyse a range of existing products. Explain positives and negatives of existing products and to begin to think about which products may appeal to their target audience. Children will be able to recognise the hydraulic function of different products and be able to explain how this design function works. Children will be able to recognise and discuss how the hydraulic function will help their design to work. They will be able to explain which is their favourite product justifying their response through their annotation. Evaluate their ideas and products against their own design criteria and consider the views of other to improve their work. Children will recognise strengths and weaknesses of their own products and can listen to others views. They will learn to offer constructive feedback in able to effectively evaluate their products created including the areas of improvement. Key vocabulary will be used in their evaluations. Understand and use mechanical systems in their product. Understand how hydraulics works and how it would move their monster. They will be able to explain their design using specific topic vocabulary. <p>Hydraulics - DT day</p>					

Objective – black Specific skills - blue Link to topic/ launches/events etc – red

<p>Year 4</p>	<ul style="list-style-type: none"> Use research and develop a design criteria to design a functional and appealing product that fits a purpose and is aimed at a particular group Explain positives and negatives of existing products and to begin to think about which products may appeal to their target audience. Children will use topic vocabulary and will decide which materials their product will need in order for the design to be successful. Generate and develop their ideas through discussion, annotated sketches, plans, prototypes and computer-aided designs. Design their product by carefully planning, annotating and explaining what materials are needs and why. Children will begin to use specific vocabulary taught within lessons as part of their annotation. Children will begin to explain why specific materials are needed and what function they complete within their design. Select from and use a wider range of materials and components according to their functional properties and desired look. Children will be able to test various materials and choose appropriate materials to help with strength and structure. They will be able to choose an appropriate material for their product so that successfully meets the design criteria. Children will have the correct components within their design to make the electrical mechanism work. They will be able to explain the choices they have made and explain how it has helped their electrical mechanism to work effectively. Evaluate their ideas and products against their own design criteria Children can use topic vocabulary to evaluate and critique their own product. They will be able recognise strengths and weaknesses of their product and be able to evaluate how and why they were or were not as successful as they had designed. They will be able to reflect on how well they have met the design criteria. Children will be able to explain how they can amend their product if the electrical mechanism is unsuccessful. Apply their understanding of how to strengthen more complex structures. Children will be able to make their structure more stable by adapting materials. They will be able to evaluate the choices they have made and which materials may have been more successful based upon their properties e.g. their flexibility, strength and thickness. Understand and use electrical systems in their products (circuits and motors) Children will be able to apply their understanding of electricity to create a working circuit within their product. They will be able to build a working electrical circuit within their design. <p>DT day scuttle bugs - Electrical mechanism</p>	<ul style="list-style-type: none"> Use research and develop a design criteria to design a product that fits a purpose and is aimed at a particular group. Explain positives and negatives of existing products and to begin to think about which products may appeal to their target audience. They will use topic vocabulary to evaluate existing products. They will be able to decide what they want their product to be and what it must have to ensure it fits the design criteria. Generate and develop their ideas through discussion, annotated sketches, plans and pattern pieces. Design their product by carefully planning, annotating and explaining what materials are needs and why. They will be able to use appropriate vocabulary to explain what ingredients they would like to chose and why drawing upon their knowledge of a balanced diet. Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately. Children can begin to complete a range of cooking skills including: rolling pastry, weighing ingredients, peeling and chopping ingredients safely, mixing effectively and seasoning thinking about the flavours of their ingredients. They will be taught explicitly how to be safe during food preparation times and will demonstrate this safety knowledge at all times. Understand and apply the principles of a healthy and varied diet To understand the different food groupings and their nutritional value. To understand what healthy means and reflect this understanding in the choices they have made within their designs. Children should understand the value of healthy ingredients as part of a balanced diet and be able to choose which healthy ingredients they would like to include within their recipes. Children will be given the opportunity to taste different fruits and vegetables within designing lessons in order to make informed choices about their ingredients. Understand seasonality and know where and how a variety of ingredients are grown. Children understand that ingredients are available at different times of the year and can explain why. Children can also identify where different foods are grown. They will begin to understand that some foods have to imported to the UK due to the weather conditions needed to grow specific fruits and vegetables. They will begin to understand which fruits and vegetables grow successfully in Britain and can explain why. Evaluate their ideas and products against their own design criteria and consider the views of other to improve their work. Children can use specific topic vocabulary to evaluate and critique their own product through recognising the strengths and weaknesses of the product. Children can listen to others' views and offer constructive feedback as part of the evaluation process. Children can justify their feedback drawing upon their knowledge of a healthy, balanced diet. Prepare and cook a savoury dish using a range of cooking techniques. Children can begin to complete a range of cooking skills including: rolling pastry, weighing ingredients, peeling and chopping ingredients safely, mixing effectively and seasoning thinking about the flavours of their ingredients. They will be taught explicitly how to be safe during food preparation times and will demonstrate this safety knowledge at all times. 	<ul style="list-style-type: none"> Use research and develop a design criteria to design a product that fits a purpose and is aimed at a particular group. Explain positives and negatives of existing products and to begin to think about which products may appeal to their target audience. They will use topic vocabulary to evaluate existing products. They will be able to decide what they want their product to be and what it must have to ensure it fits the design criteria. They will be able to critique existing products based upon their own design criteria and drawing upon their knowledge of the food groups. Generate and develop their ideas through discussion, annotated sketches, plans and pattern pieces. Design their product by carefully planning, annotating and explaining what materials are needs and why. They will be able to use appropriate vocabulary to explain what ingredients they would like to choose and why drawing upon their knowledge of a balanced diet. Children can reflect and edit designs if they do not meet the design criteria. Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately. Children can begin to complete a range of cooking skills including: rolling pastry, weighing ingredients, peeling and chopping ingredients safely, mixing effectively and seasoning thinking about the flavours of their ingredients. They will be taught explicitly how to be safe during food preparation times and will demonstrate this safety knowledge at all times. Children can pack ingredients so the consistency is correct. Understand and apply the principles of a healthy and varied diet To understand the different food groupings and their nutritional value. To understand what healthy means and reflect this understanding in the choices they have made within their designs. Children should understand the value of healthy ingredients as part of a balanced diet and be able to choose which healthy ingredients they would like to include within their recipes. Children will be given the opportunity to taste different fruits and vegetables within designing lessons in order to make informed choices about their ingredients. Children will be able to explain why their final product is healthy and fits its purpose. Understand seasonality Children will know how to season their granola bars so they are tasty as well as healthy based upon the flavours of the ingredients they have chosen. Evaluate their ideas and products against their own design criteria and consider the views of other to improve their work. Children can use specific topic vocabulary to evaluate and critique their own product through recognising the strengths and weaknesses of the product. Children can listen to others' views and offer constructive feedback as part of the evaluation process. Children can justify their feedback drawing upon their knowledge of a healthy, balanced diet. Children can explain what they would need to do next time to improve their product. Prepare and cook a savoury dish using a range of cooking techniques. Children can begin to complete a range of cooking skills including: rolling pastry, weighing ingredients, peeling and chopping ingredients safely, mixing effectively and seasoning thinking about the flavours of their ingredients. They will be taught explicitly how to be safe during food preparation times and will demonstrate this
---------------	--	--	--

			Cooking and nutrition - Healthy living week	safety knowledge at all times. Children can pack ingredients so the consistency is correct.
				Cooking and nutrition - DT week - survival granola bars
Year 5	<ul style="list-style-type: none"> Use research and develop a design criteria to design an innovative, functional and appealing product that fits a purpose and is aimed at a particular group. <p>Explain positives and negatives of existing and historical products and to begin to think about which products may appeal to their target audience. Children will use topic vocabulary and will decide which materials their product will need in order for the design to be successful. They will be able to decide what they want their product to be and what it must have, ensuring it fits the design criteria. Designs will be unique and appealing for a desired target group.</p> <ul style="list-style-type: none"> Investigate and analyse a range of existing products. <p>Children will look at existing products with the same/different mechanism and be able to explain how they work. They will be able to make a choice about which mechanism would be the most effective for their design and be able to explain why.</p> <ul style="list-style-type: none"> Generate and develop their ideas through discussion, annotated sketches, plans, cross-sectional diagrams and pattern pieces. <p>Design their product by carefully planning, annotating and explaining what materials are needs and why. Children will begin to use specific vocabulary taught within lessons as part of their annotation. Children will begin to explain why specific materials are needed and what function they complete within their design. They will evaluate whether their design meets the need of their targeted audience. They will be able to critique their selection of designs and justify the choice they have made for their final product.</p>	<ul style="list-style-type: none"> Use research and develop a design criteria to design a product that fits a purpose and is aimed at a particular group. <p>Explain positives and negatives of existing products and to begin to think about which products may appeal to their target audience. They will use topic vocabulary to evaluate existing products. They will be able to decide what they want their product to be and what it must have to ensure it fits the design criteria.</p> <ul style="list-style-type: none"> Generate and develop their ideas through discussion, annotated sketches, plans and pattern pieces. <p>Design their product by carefully planning, annotating and explaining what materials are needs and why. They will be able to use appropriate vocabulary to explain what ingredients they would like to choose and why drawing upon their knowledge of a balanced diet. Can reflect and edit their design if not Ensure their design is appropriate for the desired group.</p> <ul style="list-style-type: none"> Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately. <p>Children can begin to complete a range of cooking skills including: kneading ingredients, weighing ingredients, peeling, boiling water and chopping ingredients safely, mixing effectively and seasoning thinking about the flavours of their ingredients. Children will learn how to monitor cooking times. They will be taught explicitly how to be safe during food preparation times and will demonstrate this safety knowledge at all times.</p>	<ul style="list-style-type: none"> Use research and develop a design criteria to design an innovative, functional and appealing product that fits a purpose and is aimed at a particular group. <p>Explain positives and negatives of existing products and to begin to think about which products may appeal to their target audience. Use topic vocabulary to evaluate them. Decide what they want their product to be and what it must have, ensuring it fits the purpose. Design a product that is unique for a desired group.</p> <ul style="list-style-type: none"> Investigate and analyse a range of existing products. <p>Children will look at existing products with the same and different stitches and be able to explain which they would like to use on their own design. They will be able to make a choice about which stitches and fabrics would be the most effective for their design and be able to explain why.</p> <ul style="list-style-type: none"> Generate and develop their ideas through discussion, annotated sketches, plans, cross-sectional diagrams and pattern pieces. <p>Design their product by carefully planning, annotating and explaining what materials are needs and why. Children will begin to use specific vocabulary taught within lessons as part of their annotation. Children will begin to explain why specific materials are needed and what function they complete within their design. They will evaluate whether their design meets the need of their targeted audience. They will be able to critique their selection of designs and justify the choice they have made for their final product.</p> <ul style="list-style-type: none"> Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately. <p>Children will display autonomy when making decisions about the needle, string, material and stitch they are using. Children will be able to finish and join their product together with accuracy.</p> <ul style="list-style-type: none"> Understand how key events and individuals in design technology have helped shape the world. <p>Children will have an understanding of the history of sewing and how it has developed over the years to help shape the world. What is the same and what has changed.</p> <p>Sewing - Space- mission patches</p>	<ul style="list-style-type: none"> Use research and develop a design criteria to design an innovative, functional and appealing product that fits a purpose and is aimed at a particular group. <p>Explain positives and negatives of existing products and to begin to think about which products may appeal to their target audience. Use topic vocabulary to evaluate them. Decide what they want their product to be and what it must have, ensuring it fits the purpose. Design a product that is unique for a desired group.</p> <ul style="list-style-type: none"> Investigate and analyse a range of existing products. <p>Children will look at existing products space buggies with the same mechanism and be able to explain how they work. They will be able to explain which mechanism they would like to use on their own design.</p> <ul style="list-style-type: none"> Generate and develop their ideas through discussion, annotated sketches, plans, cross-sectional diagrams and pattern pieces. <p>Design their product by carefully planning, annotating and explaining what materials are needs and why. Children will begin to use specific vocabulary taught within lessons as part of their annotation. Children will begin to explain why specific materials are needed and what function they complete within their design. They will evaluate whether their design meets the need of their targeted audience. They will be able to critique their selection of designs and justify the choice they have made for their final product.</p> <ul style="list-style-type: none"> Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately. <p>Children will use the correct material for their project. They will be able to evaluate the range of materials they could use and explain whether they would be appropriate to use on their final product and why. They will learn how to join their product together so that it is able to move easily.</p> <ul style="list-style-type: none"> Select from and use a wider range of materials and components according to their functional properties and desired look. <p>Children choose an appropriate material to complete their product effectively. Children choose the correct components to be able to make their product work.</p> <ul style="list-style-type: none"> Understand how key events and individuals in design technology have helped shape the world. <p>Have an understanding of the history of space buggies and how they have developed over the years to help shape the world. They will be able to explain what is the same and what has changed and why this has happened</p> <ul style="list-style-type: none"> Understand and use mechanical systems in their product (pulleys and electrical). <p>Children will be able to explain how this mechanism works and how it helps their product. They will be able to explain what is happening within the mechanism and know how to improve their structure to help their mechanism to be effective.</p> <ul style="list-style-type: none"> Apply their understanding of how to strength, stiffen and reinforce more complex structures.

	<ul style="list-style-type: none"> Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately. <p>Children will use the correct material for their project. They will be able to evaluate the range of materials they could use and explain whether they would be appropriate to use on their final product and why. They will learn how to join their product together so that it is able to move easily.</p> <ul style="list-style-type: none"> Select from and use a wider range of materials and components according to their functional properties and desired look. <p>Children choose an appropriate material to complete their product effectively. Children choose the correct components to be able to make their product work.</p> <ul style="list-style-type: none"> Understand how key events and individuals in design technology have helped shape the world. <p>Have an understanding of the history of the mechanism they are using and how it has developed over the years to help shape the world. They will be able to explain what is the same and what has changed and why this has happened.</p> <ul style="list-style-type: none"> Understand and use mechanical systems in their product (gears, pulleys and levers). <p>Children will be able to explain how this mechanism works and how it helps their product. They will be able to explain what is happening within the mechanism and know how to improve their structure to help their mechanism to be effective.</p> <ul style="list-style-type: none"> Apply their understanding of how to strength, stiffen and reinforce more complex structures. <p>Children will be able to adapt and improve their design to help improve the strength and durability of their product.</p>	<ul style="list-style-type: none"> Understand and apply the principles of a healthy and varied diet <p>To understand the different food groupings and their nutritional value. To understand what healthy means and reflect this understanding in the choices they have made within their designs. Children should understand the value of healthy ingredients as part of a balanced diet and be able to choose which healthy ingredients they would like to include within their recipes. Children will be given the opportunity to taste different fruits and vegetables within designing lessons in order to make informed choices about their ingredients.</p> <ul style="list-style-type: none"> Understand seasonality and know where and how a variety of ingredients are grown <p>Children understand that ingredients are available at different times of the year and can explain why. Children know where healthy ingredients can be grown in this country. Children know about the red tractor promise.</p> <ul style="list-style-type: none"> Evaluate their ideas and products against their own design criteria and consider the views of other to improve their work. <p>Children can use specific topic vocabulary to evaluate and critique their own product through recognising the strengths and weaknesses of the product. Children can listen to others' views and offer constructive feedback as part of the evaluation process. Children can justify their feedback drawing upon their knowledge of a healthy, balanced diet.</p> <p>Cooking and nutrition - Healthy Living week</p>		<ul style="list-style-type: none"> Be able to adapt and improve their design to help improve the strength and durability of their product. They will be able to explain how different terrains may affect the choices of material they have made within their design of their space buggy. <p>Space Buggies - Electric powered pulley system</p>
--	--	---	--	---



Design and Technology MTP

	DT day - Anglo Saxon wells - wheel and axle			
Year 6	<ul style="list-style-type: none">Use research and develop a design criteria to design an innovative, functional and appealing product that fits a purpose and is aimed at a particular group. <p>Explain positives and negatives of existing and historical products and to begin to think about which products may appeal to their target audience. Children will use topic vocabulary and will decide which materials their product will need in order for the design to be successful. They will be able to decide what they want their product to be and what it must have, ensuring it fits the design criteria. Designs will be unique and appealing for a desired target group.</p> <ul style="list-style-type: none">Generate and develop their ideas through discussion, annotated sketches and plans. <p>Design their product by carefully planning, annotating and explaining what materials are needs and why. Children will begin to use specific vocabulary taught within lessons as part of their annotation. Children will begin to explain why specific materials are needed and what function they complete within their design. They will evaluate whether their design meets the need of their targeted audience. They will be able to critique their selection of designs and justify the choice they have made for their final product.</p> <ul style="list-style-type: none">Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately. <p>Children will use the correct material for their project. They will be able to evaluate the range of materials they could use and explain whether they would be appropriate to use on their final product and why. They will learn how to join their product together so that it is able to move easily.</p> <ul style="list-style-type: none">Select from and use a wider range of materials and components according to their functional properties and desired look. <p>Children choose an appropriate material to complete their product effectively. Children choose the correct components to be able to make their product work.</p> <ul style="list-style-type: none">Investigate and analyse a range of existing products. <p>Children will look at existing products with the same/different mechanism and be able to explain how they work. They will be able to make a choice about which mechanism would be the most effective for their design and be able to explain why.</p> <ul style="list-style-type: none">Understand how key events and individuals in design technology have helped shape the world. <p>Have an understanding of the history of the mechanism they are using and how it has developed over the years to help shape the world. They will be able to explain what is the same and what has changed and why this has happened. Children will learn about the mechanism through a roller coaster workshop and will apply this knowledge when designing and evaluating their final product.</p> <ul style="list-style-type: none">Understand and use mechanical systems in their product (gears, pulleys and levers). <p>Children will be able to explain how this mechanism works and how it helps their product. They will be able to explain what is happening within the mechanism and know how to improve their structure to help their mechanism. Children will learn</p>	<ul style="list-style-type: none">Use research and develop a design criterion to design a product that fits a purpose and is aimed at a particular group. <p>Explain positives and negatives of existing and historical products and to begin to think about which products may appeal to their target audience. Children will use topic vocabulary and will decide which materials their product will need in order for the design to be successful. They will be able to decide what they want their product to be and what it must have, ensuring it fits the design criteria. Designs will be unique and appealing for a desired target group.</p> <ul style="list-style-type: none">Generate and develop their ideas through discussion, annotated sketches, plans and pattern pieces. <p>Design their product by carefully planning, annotating and explaining what materials are needs and why. Children will begin to use specific vocabulary taught within lessons as part of their annotation. Children will begin to explain why specific materials are needed and what function they complete within their design. They will evaluate whether their design meets the need of their targeted audience. They will be able to critique their selection of designs and justify the choice they have made for their final product.</p> <ul style="list-style-type: none">Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately. <p>Children can begin to complete a range of cooking skills including: making pastry, kneading ingredients, weighing ingredients, peeling, boiling water, using a sieve and chopping ingredients safely, mixing effectively and seasoning thinking about the flavours of their ingredients. Children will learn how to monitor cooking times. They will be taught explicitly how to be safe during food preparation times and will demonstrate this safety knowledge at all times. Children will think about their presentation to make their product appealing. Children will learn how to check if inside is cooked thoroughly.</p> <ul style="list-style-type: none">Understand and apply the principles of a healthy and varied diet <p>To understand the different food groupings and their nutritional value. To understand what healthy means and reflect this understanding in the choices they have made within their designs. Children should understand the value of healthy ingredients as part of a balanced diet and be able to choose which healthy ingredients they would like to include within their recipes. Children will be given the opportunity to taste different fruits and vegetables within designing lessons in order to make informed choices about their ingredients.</p> <ul style="list-style-type: none">Understand seasonality and know where and how a variety of ingredients are grown <p>Children understand that ingredients are available at different times of the year and explain why. Children know where healthy ingredients can be grown in this country. Children know about the red tractor promise.</p> <ul style="list-style-type: none">Evaluate their ideas and products against their own design criteria and consider the views of other to improve their work. <p>Children can use specific topic vocabulary to evaluate and critique their own product through recognising the strengths and weaknesses of the product. Children can listen to others' views and offer constructive feedback as part of the evaluation process. Children can justify their feedback drawing upon their</p>	<ul style="list-style-type: none">Use research and develop a design criterion to design an innovative, functional and appealing product that fits a purpose and is aimed at a particular group. <p>Explain positives and negatives of existing and historical products and to begin to think about which products may appeal to their target audience. Children will use topic vocabulary and will decide which materials their product will need in order for the design to be successful. They will be able to decide what they want their product to be and what it must have, ensuring it fits the design criteria. Designs will be unique and appealing for a desired target group.</p> <ul style="list-style-type: none">Generate and develop their ideas through discussion, annotated sketches and plans. <p>Design their product by carefully planning, annotating and explaining what materials are needs and why. Children will begin to use specific vocabulary taught within lessons as part of their annotation. Children will begin to explain why specific materials are needed and what function they complete within their design. They will evaluate whether their design meets the need of their targeted audience. They will be able to critique their selection of designs and justify the choice they have made for their final product.</p> <ul style="list-style-type: none">Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately. <p>Children will use the correct material for their project. They will be able to evaluate the range of materials they could use and explain whether they would be appropriate to use on their final product and why. They will learn how to join their product together so that it is able to move easily.</p> <ul style="list-style-type: none">Select from and use a wider range of materials and components according to their functional properties and desired look. <p>Children will use motors and electricity to make a boat move. Use appropriate materials to make sure the boat is secure and able to float on water.</p> <ul style="list-style-type: none">Investigate and analyse a range of existing products. <p>Children will be able to evaluate different designs of boats and understand what makes them work, what parts are important and which are for design only. After explicit research, children will choose what other materials to include in their design to ensure that the boat can float, keeps the electric circuit waterproof and enables the product to be streamline.</p> <ul style="list-style-type: none">Understand and use electrical systems in their products (circuits and motors). <p>Children will be able to explain how this mechanism works and how it helps their product. They will be able to explain what is happening within the electrical mechanism and know how to improve their structure to help their mechanism. Children will understand how the circuit works and explains how it can make the boat move. Children will be able to identify and correct any electrical problems within their design.</p> <p>DT Week - Electrical mechanism</p>	

Objective – black Specific skills - blue Link to topic/ launches/events etc – red



Design and Technology MTP

	<p>about the mechanism through a roller coaster workshop and will apply this knowledge when designing and evaluating their final product.</p> <ul style="list-style-type: none">Evaluate their ideas and products against their own design criteria and consider the views of other to improve their work. <p>Children can use specific topic vocabulary to evaluate and critique their own product through recognising the strengths and weaknesses of the product. Children can listen to others' views and offer constructive feedback as part of the evaluation process. Children can justify their feedback drawing upon their knowledge of a healthy, balanced diet. Children can independently make changes or adaptations to their product whilst in the making process if needed.</p> <p>DT day - Roller coasters with a lever system</p>	<p>knowledge of a healthy, balanced diet. Children can independently make changes or adaptations to their product whilst in the making process if needed.</p> <ul style="list-style-type: none">Prepare and cook a savoury dish using a range of cooking techniques. <p>Children can begin to complete a range of cooking skills including: making pastry, kneading ingredients, weighing ingredients, peeling, boiling water, using a sieve and chopping ingredients safely, mixing effectively and seasoning thinking about the flavours of their ingredients. Children will learn how to monitor cooking times. They will be taught explicitly how to be safe during food preparation times and will demonstrate this safety knowledge at all times. Children will think about their presentation to make their product appealing. Children will learn how to check if inside is cooked thoroughly.</p> <p>Cooking and nutrition - Healthy living week</p>	
--	--	---	--