



DT Progression Map

Design

	Topics	National Curriculum Objective	Success Criteria
Year 1	• I am Fabulous • Dinotastic • A Knight's Tale • Land Ahoy • Our Planet	• 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.	• Children to be able to create a simple design of their house, the school, a diva lamp, a cage for a dinosaur, a castle, a musical instrument, a pirate ship and a safari vehicle. It should functional and appealing to themselves and others. • Children to use words and pictures to describe what they want to do. They should discuss steps that will take to make their product. • Children should be able to talk about their design, materials they are going to use, how they are going to join materials. • Children should be able use a computer program to design a product.
Year 2	• The Rainforest • Pre-historic Explorers • Moon Zoom! • Great Fire of London • National and International Sport • The World	• 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	• Children to design a rainmaker, a finger puppet, a solar system, a 1666 house and a house from another continent. • They should create a simple design for their product that is purposeful, functional and appealing to themselves and others based on design criteria given. E.g Which material would make the best sound for the rainmaker? Which materials would be best to represent each planet? What are the architectural features of houses from 1666? • They should be able to generate, develop, model and communicate their ideas through talking, drawing, templates and mock ups. • They children should research their ideas using ICT.
Year 3	• Ironstone • Explorers • Our Locality • Romans • Explosive	• 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.	Juggling Balls-explore different juggling ball designs and evaluate materials used and performance. Test different fillings for juggling balls. Create three different designs, using labelled diagrams, for juggling balls and consider external design and filling.



	Earth	• Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.	Design a stone age weapon and a kite. In doing these, Children should use their knowledge of existing products to design their functional product. • To be able to create designs using annotated sketches and prototypes. • To talk about my design and discuss how it might change from my original idea after research and prototypes.
Year 4	•Treasure Hunters •Steelworks •The Great Glorious • All Around the World	• 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.	• Research the use and design of anglo-saxon brooches to inform their own design. Design and then create a prototype of their brooch. Create the brooch from clay selecting and using appropriate tools and techniques. Decorate appropriately using paint and jewels. Children to design a Viking long ship a bridge, a light circuit for a lighthouse and a lighthouse incorporating the circuit, design a bridge like the transporter brudge, design a Greek temple. During these activities, the children should be able to: • Use their knowledge of existing products to design a functional and appealing product for a particular purpose and audience. • Create designs using annotate sketches, exploded diagrams and pattern pieces. • Research and develop their design from a given design criteria.
Year 5	• Super seasonal cooking • Marvellous Maps • Exploring Eastern Europe • Egyptians • Magnificent Mountains • Benin	• 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.	• Children to design an adventure map for a floor robot, an Egyptian pyramid and a model mountain range. • In designing these products, the children should be able to use their research into existing products to inform the design of their own innovative product. • The design should be created using annotated sketches and cross sectional designs and pattern pieces.



Year 6	• The Amazing Americas • Raging Rivers • Local History • Trade and Economics • Rampaging Romans	• 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.	• Children to design a Day of the Dead mask, a boat, rationed food, global food, an air raid shelter and an automated animal. • They should generate, develop, model and communicate their ideas through lots of discussion, annotated sketches, exploded diagrams and through prototypes and computer aided design. Design a recipe that may be eaten on the front line using ingredients readily available during the period of the war that was affected by food rationing.
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Make

	Topics	National Curriculum Objective	Success Criteria
Year 1	• I am Fabulous • Dinotastic • A Knight's Tale • Land Ahoy • Our Planet	• 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.	• When making their designs, children should be able to select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing. • To think about whether the right material is being used and the right equipment for making marks, cutting and shaping materials. • With supervision, children should be able to join, assemble and combine materials and components. • Children should use construction kits, textiles, food and mechanical components.
Year 2	•The Rainforest •Pre-historic Explorers • Moon Zoom! •Great Fire of London • National and International Sport •The World	• 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.	• Children should choose tools that they would like to use and select materials based on their knowledge of their properties. - Children to create templates, mock ups and explore ideas and opinions about the product. • They should be able to safely measure, mark out, cut and shape materials and components using a range of tools. • Use finishing techniques including art skills. • Use construction kits, textiles, sewing puppets, food and mechanical components such as wheel and axles.
Year 3	•Ironstone •Explorers •Our Locality • Romans • Explosive	• Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately	<u>Stone Age Tools</u> - children make simple stone age tools using appropriate materials. They should explain they should be used to meet a design criteria. <u>Juggling balls</u> Using different outer materials (balloons/small swabs of fabric) and inner fillings (rice,



	Earth	• 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	lentils, beans, sand, flour) children make their own juggling balls. <u>Kites</u> They will make their own kite. Children to create a template or prototype. • When making, the children should safely measure, mark out, cut assemble and join with some accuracy. • They can make suitable choices from a wider range of tools and unfamiliar materials and plan out the main stages of using them. Use finishing techniques with skill and accuracy.
Year 4	•Treasure Hunters •Steelworks •The Great Glorious • All Around the World	•Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], 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	<u>Anglo- saxon brooches</u> Create a brooch from clay selecting and using appropriate tools and techniques. Decorate appropriately using paint and jewels. <u>Make a Viking longship</u> Make a model bridge selecting appropriate materials and components. <u>Model Bridges</u> Make a model bridge selecting appropriate materials and components. <u>Circuits</u> Make a lighting circuit and build a model light house incorporating the light. • In making these, the children should use techniques which require more accuracy to cut, shape, join and finish their work. • They use their knowledge of techniques and the functional and aesthetic qualities of a wide range of materials and plan how to use them. Use construction kits, food, electrical and mechanical components (gears, pulleys, electric motors) Join, assemble and combine materials/textiles and components with some accuracy



			(sewing).
Year 5	• Super seasonal cooking • Marvellous Maps • Exploring Eastern Europe • Egyptians • Magnificent Mountains • Benin	Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], 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	<u>Real adventure Map</u> <u>An Egyptian Pyramid</u> Children to make templates, prototypes and pattern pieces. <u>A Mountain Range using modrock</u> • Children to make careful and precise measurements so that joins, holes and openings are in exactly the right place. • Children to produce step by step plans to guide their making, demonstrating that they can apply their knowledge of different materials, tools and techniques. Children to use construction kits, textiles, food, electrical and mechanical components.
Year 6	• The Amazing Americas • Raging Rivers • Local History • Trade and Economics • Rampaging Romans	Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], 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.	Day of the Dead Mask Boat Automated animal Air raid shelter A food from rationed items such as make 'biscuit pudding' and 'eggless' pancakes' A meal from around the world • Children to use their technical knowledge and accurate skills to problem solve during the making process. • Children to apply their knowledge of material and techniques to refine and rework my product to improve its functional properties and aesthetic qualities. Children to make templates, prototypes and pattern pieces. To use construction kits, textiles/ sewing, food, electrical and mechanical components (gears, pulleys, cams, computer aided systems)



Evaluate

	Topics	National Curriculum Objective	Success Criteria
Year 1	• I am Fabulous • Dinotastic • A Knight's Tale • Land Ahoy • Our Planet	Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria	• Children to use simple questions about existing products and those that they have made. Evaluate the cage for a dinosaur - was the right material used, did it work? Would it be strong enough? Evaluate the castle. Would it keep enemies out? Evaluate the treasure chest. Would people be able to steal the treasure? Evaluate the ship. Did it float? Evaluate the modroc island.
Year 2	• The Rainforest • Pre-historic Explorers • Moon Zoom! • Great Fire of London • National and International Sport • The World	Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.	• Children to evaluate and assess existing products and what they have made using a design criteria. • To state what they like and dislike about my product. Evaluate the Rainmaker. Which material made the best sound? Evaluate the solar system. How did you represent each planet and why? Evaluate the 1666 London house. How did you recreate the different architectural features that you researched? Evaluate the different style of house you made from another continent. How does it compare to other houses chosen by your friends?
Year 3	• Ironstone • Explorers • Our Locality • Romans • Explosive Earth	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	• Children can investigate and analyse existing products and those they have made, considering a wide range of factors. • They can talk about how they would improve their product if they were to make it again. Juggling Balls-explored different juggling ball designs and evaluated materials used and performance. Test and evaluate different fillings for juggling balls. Test and evaluate final juggling balls.



		in design and technology have helped shape the world.	
Year 4	•Treasure Hunters •Steelworks •The Great Glorious • All Around the World	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.	• Children to investigate and analyse a range of existing products and explain how they will help to develop their design. • To consider how existing products and their own finished products might be improved and how well they meet the needs of the intended user. • Test and evaluate the finished brooch. • Evaluate longships against their own specific criteria •Children test the light houses to evaluate whether they fulfil the design brief and criteria set out at the start. • Evaluate the bridges against the specific design criteria, taking into account the views of others.
Year 5	• Super seasonal cooking • Marvellous Maps • Exploring Eastern Europe • Egyptians • Magnificent Mountains • Benin	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.	• Children to can make detailed evaluations about existing products and their own considering the views of others to improve my work. • Evaluate the finished meal against the design criteria • Peer evaluation, evaluate the finished maps of other groups against criteria and give feedback. • Evaluate the pyramids (own and others) against success criteria and give feedback. • Evaluate the mountain ranges. Are they all different? Have they included key features?
Year 6	• The Amazing Americas • Raging Rivers • Local History • Trade and	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. • Evaluate masks against others and the success criteria. Evaluate elements such as materials used, design etc



	Economics • Rampaging Romans	Understand how key events and individuals in design and technology have helped shape the world.	• Evaluate work looking at photographs from the previous session and considering the taste of their product. Evaluate against the brief (rationed ingredients).
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Technical Knowledge

	Topics	National Curriculum Objective	Success Criteria
Year 1	• I am Fabulous • Dinotastic • A Knight's Tale • Land Ahoy • Our Planet	Build structures, exploring how they can be made stronger, stiffer and more stable. Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	• Children to build structures, exploring how they can be made stronger, stiffer and more stable. • To use wheels and axles in a product. • Look at the cage for a dinosaur - How could they make it stronger? • Evaluate the castle. What could they add? Drawbridge? etc • Evaluate the treasure chest. Does the lid open? Could they improve it? • Evaluate the ship. Did it float?
Year 2	• The Rainforest • Pre-historic Explorers • Moon Zoom! • Great Fire of London • National and International	Build structures, exploring how they can be made stronger, stiffer and more stable. Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	• Explore and use mechanisms such as levers, sliders and wheels in products. • Investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable. • Rainmaker - Which material makes the best sound? What adhesive is best to use to hold your rainmaker together? • Solar System - What materials can you use to connect the planets in your solar system? • House from a different continent - What type of hinges will you use for the doors and windows of your house. What materials will you use to make your house look different to a



	Sport •The World		house in this continent?
Year 3	•Ironstone •Explorers •Our Locality •Romans • Explosive Earth	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] Apply their understanding of computing to program, monitor and control their products.	• Investigate different techniques for stiffening, strengthening and reinforcing more complex structures. • Test and evaluate different fillings for juggling balls. • Create three different designs, using labelled diagrams, for juggling balls and consider external design and filling.
Year 4	•Treasure Hunters •Steelworks •The Great Glorious • All Around the World	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] Apply their understanding of computing to program, monitor and control their products.	• Understand and use electrical systems in their products. • Apply techniques they have learnt to strengthen structures and explore their own ideas. • Make a model bridge selecting appropriate materials and components. • Make a Viking longship model using appropriate materials and structures. • Make a lighting circuit and build a model light house incorporating the light.



Year 5	• Super seasonal cooking • Marvellous Maps • Exploring Eastern Europe • Egyptians • Magnificent Mountains • Benin	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] Apply their understanding of computing to program, monitor and control their products.	• Understand how to use more complex mechanical systems. • Make a structurally sound Egyptian pyramid • Design an adventure map for a floor robot
Year 6	• The Amazing Americas • Raging Rivers • Local History • Trade and Economics • Rampaging Romans	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] Apply their understanding of computing to program, monitor and control their products.	• To build more complex 3D structures and apply their knowledge of strengthening techniques to make them stronger and more stable. • Understand how to use more complex electrical systems. • Apply their understanding of computer programs to monitor and control their product.



Food and Nutrition

	Topics	National Curriculum Objective	Success Criteria
Year 1	• I am Fabulous • Dinotastic • A Knight's Tale • Land Ahoy • Our Planet	Use the basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from.	Look at food cooked at Diwali, have a banquet, make a healthy sandwich. Look at food from around the world and make African Chakalaka. Christmas activities- salt dough decorations, baking cookies • They can say where some food comes from with support. • They can prepare a simple salad/ fruit salad and talk about where the fruit and vegetables come from. • They can peel and chop foods using the bridge and claw grip with support. • They can say whether some foods are healthy or unhealthy.
Year 2	• The Rainforest • Pre-historic Explorers • Moon Zoom! • Great Fire of	Use the basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from.	Explore what astronauts eat and how they maintain a healthy diet in space. Explore a different culture and their main cuisine, tasting and evaluating different foods. • They can say where some foods come from.



	London • National and International Sport • The World		• They can peel and mix foods with some support. • They can chop low resistance foods using the bridge and claw grip with some support. • They can grate soft foods with support. • They can say what foods I should eat to stay healthy. Design and make a healthy menu/meal exploring food and where it comes from
Year 3	• Ironstone • Explorers • Our Locality • Romans • Explosive Earth	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.	Children look at foods the hunter gatherers of the Stone Age would forage and hunt for. Taste different seasonal fruit and vegetables grown in the UK. Learn about how this is grown and processed. They will design and make their own stone age meal using season fruit or veg. Use seasonal fruit and vegetables to make dishes. Children can prepare, make, taste and evaluate. • They can talk about where and how foods are grown, reared, caught and processed. • They can peel, grate and mix food with increasing accuracy. • They can measure ingredients by counting. • They can chop low resistance foods using the bridge and claw grip with increasing accuracy. • They can use a wider variety of ingredients and techniques to prepare and combine ingredients safely. • They can talk about the different food groups and name a food from each group. Stone Age Hunter Gatherers
Year 4	• Treasure Hunters • Steelworks • The Great Glorious • All Around the World	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	Food around the world, look at diets, where ingredients are from. Prepare a range of savoury dishes in the context of making pretzels. • They understand what makes a healthy and balanced diet, and that different foods and drinks provide different substances the body needs to be healthy and active. • They can read and follow recipes which involve several processes, skills and techniques with some support. • They can chop high resistance foods using the bridge and claw grip with increasing



		how a variety of ingredients are grown, reared, caught and processed.	accuracy. • They can measure ingredients using digital scales with support.
Year 5	• Super seasonal cooking • Marvellous Maps • Exploring Eastern Europe • Egyptians • Magnificent Mountains • Benin	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.	Make a healthy, seasonal meal. Make a balanced meal using ingredients from Africa. Evaluate the finished meal against the design criteria. • They understand seasonality and the advantages of eating seasonal and locally produced food. • They can read and follow recipes which involve several processes, skills and techniques. • They can chop high resistance foods using the bridge and claw grip with increasing accuracy. • They can confidently plan a series of meals based on the principals of a healthy and varied diet. • They can use information of food labels to inform choice. • They can research, plan and prepare a savoury dish, applying my knowledge of ingredients and my technical skills. • They can measure ingredients using a digital scales.
Year 6	• The Amazing Americas • Raging Rivers • Local History • Trade and Economics • Rampaging Romans	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.	Global food. Design a recipe that may be eaten on the front line using ingredients readily available during the period of the war that was affected by food rationing. • They can design and create a cake based on a given theme • They can measure ingredients using a digital scales with accuracy. Research food availability and rationing in the war. Make 'biscuit pudding' and 'eggless' pancakes'. Evaluate against the brief (rationed ingredients).