

DT -Long Term Plan

Nursery

In Reception, we plan topics and lessons to cover the breadth of the curriculum, but we also follow the children's interests, which can often take us in a different direction.

Autumn Term	Spring Term	Summer Term
Explore building and construction using a variety of materials. Revisited: Previous construction experiences at home and in provision. Know that: Different materials can be used to build and make things. Materials have different properties (hard, soft, strong, flexible). Some materials are better suited to different jobs. Tools help us to make and change materials. Designers and builders create things for a purpose. Construction equipment can be used in different ways. Joining materials helps us make larger structures. Can: Explore a range of construction materials independently. Stack, balance and connect materials. Build simple structures for a purpose. Select resources to support their ideas. Use construction kits with increasing control. Use scissors safely with support. Join materials using tape, glue and folding. Talk about what they have made and how they made it.	Explore food preparation and investigate materials. Revisited: Autumn construction and joining skills. Know that: Food comes from plants or animals. Different foods have different tastes, smells and textures. Hands should be washed before handling food. Some tools are used to cut, mix or shape ingredients. Designers think carefully about the products they make. Materials can be changed by mixing, squashing, cutting or shaping. Can: Explore ingredients using their senses. Mix, stir and combine ingredients. Use simple food preparation tools safely. Describe foods using simple vocabulary. Explore how materials can be manipulated. Compare different materials. Make choices about which materials to use. Follow simple instructions. Talk about likes and dislikes.	Design and create models using junk and recycled materials. Revisited: Autumn structures and Spring material exploration. Know that: Recycled materials can be reused to make new things. Models are created to represent ideas. Different joining methods create different results. Planning can help us make successful products. Designers often test and improve their ideas. Products can be evaluated and changed. Can: Select materials independently for a purpose. Combine different materials effectively. Use glue, tape, folding and slotting techniques. Create models from their own ideas. Adapt designs during making. Solve simple construction problems. Discuss why they chose particular materials. Describe features of their models. Evaluate what worked well.

Suggest changes to improve a model. Develop imaginative play through designing and making.	Explain what they have made.	Suggest improvements for future designs.
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Reception			
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	Autumn Term	Spring Term	Summer term
Topic	My Home	My Country	My World
DT Discipline	Food Technology	Structures	Junk Modelling
Formal Element (Skill)	Food Technology: Make gingerbread men by mixing, rolling and shaping ingredients. Food Preparation: Explore ingredients using senses. Health and Hygiene: Wash hands and use tools safely. Evaluation: Discuss likes and dislikes of finished products.	Structures: Design and build A-frame bridges using a range of materials. Construction: Test strength and stability. Investigation: Compare different bridge designs. Evaluation: Identify ways to improve structures.	Structures: Design and build A-frame bridges using a range of materials. Construction: Test strength and stability. Investigation: Compare different bridge designs. Evaluation: Identify ways to improve structures.
Designers	Jamie Oliver	Norman Foster	Nick Sharnett

Year One			
	Autumn Term	Spring Term	Summer Term
Topic	Sliders and Leavers (Florence Nightingale)	Structures (Tudor House)	Gingerbread
DT Discipline	Mechanical Systems	Structures	Cooking and Nutrition
Formal Element (Skill)	Mechanisms – Explore sliders and levers through books, toys and moving pictures. Investigation – Discover how movement can be created using simple mechanisms. Design – Design a moving picture of Florence Nightingale carrying her lamp. Making – Create a moving picture using sliders, levers and pivots. Evaluation – Test movement and suggest improvements. Technical Knowledge – Know that different mechanisms create different types of movement.	Structures and Stability – Investigate Tudor houses and explore how structures are built. Construction – Measure, cut, fold and join materials to create a Tudor house. Investigation – Explore which shapes and materials make structures stronger. Design – Draw and label a Tudor house design before making. Evaluation – Identify strengths and weaknesses of the finished structure. Technical Knowledge – Know that structures need strong joins, stable bases and suitable materials.	Food Preparation and Nutrition – Explore ingredients and understand where food comes from. Health and Hygiene – Learn the importance of washing hands, cleaning surfaces and handling food safely. Design – Design a gingerbread character by choosing decorations and considering appearance. Making – Measure, mix, roll and shape ingredients to create a gingerbread person. Evaluation – Taste and evaluate finished products, discussing likes, dislikes and improvements. Technical Knowledge – Know that foods come from plants and animals and understand the importance of a balanced diet.
Designer Study	James Dyson British inventor and engineer. Born: 2 May 1947, Norfolk, England. James Dyson is famous for designing products through testing, adapting and improving ideas.	Norman Foster British architect. Born: 1 June 1935, Manchester, England. Norman Foster is known for designing innovative buildings and structures around the world. His work demonstrates how architects	Jamie Oliver British chef and food campaigner. Born: 27 May 1975, Essex, England. Jamie Oliver promotes healthy eating and encourages children to learn about food preparation and nutrition.

	His work helps children understand the design process and problem-solving.	combine strength, function and appearance in their designs.	
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Year Two			
	Autumn Term	Spring Term	Summer Term
Topic	Design a Car	Fruit Salad	Design a Pencil Case
DT Discipline	Mechanisms	Cooking and Nutrition	Textiles
Formal Element (Skill)	Mechanisms and Movement – Investigate how wheels, axles and chassis work together to create movement. Product Investigation – Explore existing model cars and identify features that make them successful. Design – Create labelled designs and use simple CAD software to design a vehicle body. Making – Construct a chassis, axle and wheel system using a range of materials. Prototype – Build and test a model before making the final product. Evaluation – Evaluate performance, appearance and movement against design criteria. Technical Knowledge – Know that wheels rotate on axles and that axles must be fixed securely for movement to occur. Know that designers and engineers improve products through testing and evaluation.	Food Preparation and Nutrition – Investigate a variety of fruits and discuss preferences, appearance, texture and taste. Health and Hygiene – Understand the importance of washing hands, cleaning equipment and preparing food safely. Practical Skills – Develop chopping, peeling, grating and cutting skills safely. Design – Plan a fruit salad for a specific user and purpose. Making – Select ingredients and prepare a fruit salad independently. Evaluation – Taste, evaluate and improve products using design criteria. Technical Knowledge – Know that fruit forms part of a healthy diet and understand where different fruits are grown. Know that food products can be designed for different users and purposes.	Textiles and Joining – Investigate existing pencil cases and evaluate their suitability for purpose. Construction – Explore sewing, gluing, stapling and joining techniques. Design – Create a labelled design for a pencil case, considering user and purpose. Prototype – Make a paper model to test size and shape. Making – Measure, cut and join fabric to create a finished product. Evaluation – Evaluate the finished pencil case and suggest improvements. Technical Knowledge – Know that textiles can be joined in different ways and that different fabrics have different properties. Know that patterns and decoration can improve the appearance of a product.
	Designer Study Henry Ford American industrial designer and	Heston Blumenthal British chef and food innovator.	Laura Ashley Welsh fashion and textile designer.

	founder of the Ford Motor Company. Born: 30 July 1863, Michigan, USA. Henry Ford transformed vehicle manufacturing and helped make cars accessible to millions of people. His work demonstrates how designers and engineers solve practical problems.	Born: 27 May 1966, London, England. Heston Blumenthal is famous for experimenting with food, flavours and presentation. His work encourages creativity, problem-solving and innovation in food design while promoting an understanding of ingredients and food preparation.	Born: 7 September 1925, Merthyr Tydfil, Wales. Laura Ashley became famous for her fabric patterns, clothing and home furnishings. Her work demonstrates how textiles can be both functional and decorative, using colour, pattern and design to create products people enjoy using.
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