



LOVE • COURAGE • COMMUNITY

Design & Technology at Ropley Church of England Primary School



Ensure children produce products for specific users and for a purpose



Provide dedicated time for the development of skills which lead to high-quality final products



Build up children's cooking portfolio to create a wide range of healthy food products



Encourage children to know how to keep safe within Design & Technology

EYFS Design & Technology Learning Journey

Sticky Knowledge

- Safely use and explore a variety of materials, tools and techniques
- Know different ways to join materials together (stitching, gluing, taping, pinning)
- Know how to, with support, join fabrics using weaving
- Be able to create a structure in different ways
- Share their creations with adults and be able to explain the processes they have used
- Know how to wash hands for good hygiene
- With support know how to cut/chop their snacks safely
- Know how to use a spoon to mix

Ropley Words

Mix, Bowl, Spoon, Chop, Cut, Board, Hygiene, Clean, Thread, Weave, Join, Model

Building the foundations for Year 1 and beyond



Year 1

Autumn

- Explore and evaluate a range of existing puppets
- Identify ways of joining material together
- Design a puppet thinking about how it will be made
- Create a template and a prototype of a puppet
- Be able to join material together making sure it is safe and secure
- Be able to evaluate my idea and product against the design criteria

Spring

- Compare different tastes and flavours
- Describe the texture and appearance of different fruits
- With support, slice, peel and chop
- Design a snack/smoothie taking into account knowledge of flavours which complement each other
- Evaluate my ideas and product against the design criteria

Summer

- Explain clearly what lever and slider means
- Construct leavers and sliders
- Design and create a moving story book
- Explain clearly what strong and stable means
- Design a stable structure
- Evaluate my idea and product against the design criteria

Sticky Knowledge

- Know what a puppet is
- Know how an adult can thread a needle
- Know different ways to join fabric together (stitching, stapling and gluing)
- Know how to, with some support, join fabrics using a simple running stitch
- Know what is meant by a product
- Know what is meant by a purpose
- Know what is meant by a user
- Know where some food comes from
- Know it is important to wash hands for good hygiene
- Know how to use a mixing bowl
- Know how to cut/chop ingredients safely
- Know a variety of fruits and vegetables
- Know what a smoothie is
- Know what is meant by a structure

Ropley Words

Mechanisms	slider, lever, pivot, slot, bridge/guide, card, masking tape, paper fastener, join, pull, push, up, down, straight, curve, forwards, backwards, design, make, evaluate, user, purpose, ideas, design criteria, product, function
Structures	cut, fold, join, fix, structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic
Food Technology	names of equipment and utensils sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard
Textiles	Template, join, sew

Year 2

Autumn

- Recognise the importance of a well-balanced diet
- Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.
- Design a product using our knowledge of a balanced diet
- Combine foods from different food groups to create a healthy food product.
- Evaluate my final product
- Explore a range of fabrics
- Children to discuss needle safety
- Threading needles
- Practise running stitch
- Create a template for my textiles crayon/pouch
- Make and decorate a textiles crayon/pouch

Spring

- Understand how basic winding mechanisms work
- Know a range of techniques for making winding mechanisms
- Effectively plan and design a winding mechanism
- Evaluate the effectiveness of my winding mechanism

Summer

- Manipulate resources to make a stronger structure
- Know how to join and fix structures together securely
- Design and construct a structure which is strong and sturdy
- Evaluate my idea and product against the design criteria

Sticky Knowledge

- Know how to strengthen a simple structure
- Know how to make a winding mechanism to move part of a model
- Know how to thread a needle on my own
- Know what is meant by a seam
- Know what is meant by a template
- Know that food has to be grown, farmed or caught
- Know how to chop and grate safely
- Know how to measure out ingredients
- Know foods that are considered healthy
- Know the importance of being hygienic

Ropley Words

Mechanisms	assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism
Structures	cuboid, cube, cylinder, function
Food Technology	flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing
Textiles	features, suitable, quality mock-up, design brief, design criteria, make, evaluate, user, purpose, function

Year 3

Autumn

- Revisit the importance of a well-balanced diet from Year 2
- Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.
- Design a product using our knowledge of a balanced diet
- Combine foods from different food groups to create a healthy food product
- Evaluate my final product

Spring

- Investigate a number of textile products and understand their purpose
- Experiment with a range of stitching techniques and materials
- Create a design of my final product
- Create my final product using effective stitching
- Know the difference between a fixed and a loose pivot
- Know a mechanism is a device to create movement in a product
- Know linkage is joining one or more levers to produce the type of movement required

Summer

- Know what prototype means
- Move from joining card to starting to join wood
- Know what rigid means
- Begin to understand what reinforcing structures means

Sticky Knowledge

- Know words to describe food (taste/smell)
- Know the principles of a healthy balanced diet
- Know what the food groups are
- Know how seasons effect food availability
- Know how to follow a basic recipe
- Know how to make tomato soup
- Know what a back stitch is
- Know how to add an extra piece of fabric as decoration
- Know what embroidery means
- Know what reinforcing a structure means

Ropley Words (Year 3 and 4)

Mechanisms	Mechanism, Lever, Linkage, Pivot, Linear, Rotary, Oscillating, Prototype, Design criteria, Innovative, Appealing and Design brief
Structures	Shell structure, Net, Cube, Cuboid, Vertex, Edge, Face, Length, Width, Breadth, Capacity, Shaping, Joining, Assemble, Accuracy, Material, Stiff, Strong, Reduce, Reuse and Recycle
Food Technology	Utensil, Texture, Taste, Sweet, Sour, Hot, Spicy, Appearance, Smell, Preference, Greasy, Moist, Cook, Fresh, Savoury, Hygienic, Edible, Grown, Reared, Caught, Frozen, Tinned, Processed, Seasonal and Harvested
Textiles	Fabrics, Fastening, Compartment, Zip, Button, Strength, Weakness, Stiffening, Templates, Stitch, Seam and Seam allowance

Year 4

Autumn

- Experiment with a range of stitching techniques and materials (built on from Year 3) – sewing skills to become more accurate with close stitching so as to keep rice contained

Spring

- Understand what is required to make an effective wooden structure
- Know how to create a sturdy structure
- Be able to accurately measure, cut and reinforce materials
- Know how to be safe when using tools in woodwork
- Know what yeast does when cooking/baking
- Know how to knead dough
- Know what unleavened means
- Learn how to measure out ingredients

Summer

- Investigate levers and linkages
- Create my own lever and linkage mechanism

Sticky Knowledge

- Know what is meant by fray/ing
- Know how to independently thread a needle
- Know what is meant by a quadrant
- Know how to join materials such as card and wood together
- Know what seasonal food is and how it is grown, reared, caught and processed
- Know how personal diets can be improved
- Know how to prepare ingredients using different utensils
- Know how to measure ingredients
- Know how to cook ingredients using an oven
- Know what yeast does when cooking/baking
- Know how to knead dough
- Know what unleavened means
- Know what is meant by a mechanism
- Know what a catapult is
- Know products and toys that use gear and pulley systems
- Know how different sized pulleys effect each other
- Know how gears impact speed and rotation

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Textiles	Fabrics, Fastening, Compartment, Zip, Button, Strength, Weakness, Stiffening, Templates, Stitch, Seam and Seam allowance

Year 5

Autumn

- Know where pizza originated from and make comparisons to modern times
- Be able to name the key ingredients needed to make a pizza base and explain how a pizza is made
- Understand how ingredients are used as toppings in different countries and for different purposes.
- Design a pizza using an understanding of ingredients which compliment each other
- Effectively evaluate my product
- Learn how to do blanket stitching

Spring

- Investigate a number of textile products and understand their purpose
- Experiment with a range of stitching techniques and materials.
- create a design of my final product in relation to the design brief and criteria
- Evaluate the final product in relation to the design brief and criteria

Sticky Knowledge

- Know the process of making a pizza
- Know what mass produced means
- Know how to adapt a recipe to change the appearance, texture and aroma
- Know how to sew a button onto material
- Know what is meant by a seam
- Know how to measure, cut and shape a range of materials
- Know how to saw safely
- Know how to drill safely
- Know how to measure and cut wood accurately
- Know what is meant by a prototype
- Know what is meant by a seam
- Know how to sew a button onto material

Ropley Words (Year 5 and 6)

Mechanisms	Pulley, Drive belt, Gear, Rotation, Spindle, Driver, Axle, Motor, Circuit, Switch, Circuit, Annotated drawings, Functionality, Innovation and Authentic
Structures	Frame structure, Stiffen, Strengthen, Reinforce, Stability, Temporary, Permanent, Refinement, Prototype and Aesthetics
Food Technology	Spice, Herbs, Fat, Sugar, Carbohydrate, Protein, Vitamins, Nutrients, Nutrition, Gluten, Dairy, Allergy, Intolerance, Savoury, Seasonality, Combine, Fold, Whisk, Beat, Simmer, sprinkle and crumble
Textiles	Wadding, Reinforce, Right side, Wrong side, Hem, Running stitch and Blanket stitch

Year 6

Autumn

- Describe different types of shelters and explain their purposes
- Identify which parts support and strengthen structures
- Recognise techniques for reinforcing and strengthening structures
- Know how to join and combine materials effectively
- Plan and make a model of their shelter idea
- Evaluate their own and other children's shelters

Spring

- Know how to cook using a wok and hob
- Become more confident with a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, frying, stirring and folding
- Know that to be active and healthy, food and drink are needed to provide energy for the body
- Know that recipes can be adapted to change the appearance, taste, texture and aroma

Sticky Knowledge

- Know how to strengthen, stiffen and re-enforce structures
- Know what is meant by an effective shelter
- Know what is meant by sanding
- Know what is meant by aesthetics
- Know how to cook using a hob
- Know how to cook using a wok
- Know the difference between peeling, chopping, slicing, grating, mixing, spreading, frying, stirring and folding
- Know how to make fajitas
- Know a number of different stitches

- Know key chefs who have promoted seasonality and healthy eating
- Understand that mechanical and electrical systems have an input, process and an output.
- Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement.

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