



D&T: LONG TERM PLAN - SIMPLE OVERVIEW

Autumn One

Year One

Cooking: Caring for myself and others

Year Three

Structures: Photograph frames

Year Four

Cooking: Bread & pizza

Year Five

Mechanical systems: Wars of the Roses

Year Six

Cooking: Healthy options

Spring One

Year One

Sewing: Monarchy

Year Four

Mechanical systems: Pontefract Castle

Year Five

Sewing: Ancient Greeks

Summer One

Year Four

Sewing: World War II

Year Six

Structures: Bridges and dams

Autumn Two

Year Two

Sewing: Christmas decorations

Year Three

Sewing: Christmas decorations

Year Six

Sewing: Christmas decorations

Spring Two

Year One

Structures: Transport

Year Two

Mechanical systems: The first flight

Year Five

Cooking: Sustainable food

Summer Two

Year Two

Cooking: Farms

Year Three

Cooking: Seasonal foods



D&T: PROGRESSION OF SKILLS

Design

EYFS

- Find out about a range of technology
- Begin to think about uses and purposes of products.
- Represent their own ideas in various ways

KS1

- Use their knowledge of existing products and their own experience to help generate their ideas.
- Design products that have a purpose and are aimed at an intended user.
- Explain how their products will look and work through talking and simple annotated drawings.
- Understand and follow simple design criteria.
- Work in a range of relevant contexts.

LKS2

- Identify the design features of their products that will appeal to intended customers.
- Use their knowledge of a broad range of existing products to help generate their ideas.
- Design innovative and appealing products that have a clear purpose and are aimed at a specific user.
- Explain how particular parts of their products work.
- Use annotated sketches and cross-sectional drawings to develop their ideas.
- Explore different initial ideas before coming up with a final design.
- Start to explain their choice of materials and components including function
- Test ideas out through using prototypes.
- Develop and follow simple design criteria.
- Work in a broader range of relevant contexts

UKS2

- Use research to inform and develop detailed design criteria.
- Use their knowledge of a broad range of existing products to help generate their ideas;
- Design products that have a clear purpose and indicate the design features of their products that will appeal to the intended user.
- Explain how particular parts of their products work;
- Use annotated sketches and cross-sectional drawings to communicate their ideas.
- Generate a range of design ideas and clearly communicate final designs.
- Consider the availability and costings of resources.
- Work in a broad range of relevant contexts.

Make

EYFS

- Begin to explore measuring objects.
- Use technology for particular purposes.
- Select appropriate applications that support an identified need.
- Develop ideas through selecting and using materials and working on processes that interest them.
- Safely use, explore and experiment with a variety of materials, tools and techniques

KS1

- Begin to select from a range of hand tools and equipment.
- Learn to use hand tools and kitchen equipment safely.
- With help, measure and mark out.
- Cut, shape and score materials with some accuracy.
- Assemble, join and combine materials, components or ingredients.

LKS2

- Carefully select from a range of tools and equipment.
- Learn to use a range of tools and equipment safely.
- With growing independence, measure and mark out to the nearest cm and mm;
- Cut, shape and score materials with some degree of accuracy
- Assemble, join and combine material and components with some degree of accuracy.

UKS2

- With confidence, select from a wide range of tools and equipment.
- Learn to use a wide range of tools and equipment safely.
- Independently take exact measurements and mark out, to within 1mm.
- Cut a range of materials with precision and accuracy.
- Shape and score materials with precision and accuracy.
- Assemble, join and combine materials and components with accuracy.

Evaluate

EYFS

- Explore characteristics of everyday objects.
- Talk about the features of their own and others' work, recognising the strengths and differences between them.

KS1

- Explore and evaluate existing products mainly through discussions, comparisons and simple written evaluations.
- Explain positives and things to improve for existing products.
- Explore what materials products are made from.
- Talk about their design ideas and what they are making.
- As they work, start to identify strengths and possible changes they might make to refine their existing design.
- Evaluate their products and ideas against their simple design criteria.
- Start to understand that the iterative process sometimes involves repeating different stages of the process.

LKS2

- Explore and evaluate existing products, explaining the purpose of the product and whether it is designed well to meet the intended purpose.
- Explore what materials/ingredients products are made from and suggest reasons for this.
- Consider their design criteria as they make progress and are willing to alter their plans, sometimes considering the views of others if this helps them to improve their product.
- Evaluate their product against their original design criteria.
- Evaluate the key events, including technological developments, and designs of individuals in design and technology that have helped shape the world.

UKS2

- Complete detailed competitor analysis of other products on the market.
- Critically evaluate the quality of design, manufacture and fitness for purpose of products as they design and make.
- Evaluate their ideas and products against the original design criteria, making changes as needed.



D&T: PROGRESSION OF SKILLS

Technical Skills

EYFS

- Recognise that a range of technology is used in homes and schools.
- Use what they have learnt about media and materials in different ways.
- Talk about ideas and processes which have led them to make designs and products.

KS1

- Build simple structures, exploring how they can be made stronger, stiffer and more stable.
- Talk about and start to understand the simple working characteristics of materials and components.
- Explore and create products using mechanisms, such as levers, sliders, wheels and axles.

LKS2

- Understand that materials have both functional properties and aesthetic qualities.
- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products.
- Understand and demonstrate how mechanical and electrical systems have an input and output process.
- Make and represent simple electrical circuits and components to create functional products.
- Explain how mechanical systems such as levers and linkages create movement.
- Use mechanical systems in their products.

UKS2

- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products.
- Understand and demonstrate that mechanical and electrical systems have an input, process and output.
- Explain how mechanical systems, such as cams, create movement and use mechanical systems in their products.
- Apply their understanding of computing to program, monitor and control a product.

Textiles/Sewing

EYFS

- Develop ideas through selecting and using materials and working on processes that interest them.
- Safely use, explore and experiment with a variety of materials, tools and techniques

KS1

- Demonstrate how to cut, shape and join fabric to make a simple product.
- Use a basic running stitch with a large eye needle and Binca fabric.
- Begin to use simple finishing techniques to improve the appearance of their product, such as adding simple decorations.

LKS2

- Measure, cut, shape and join fabric accurately.
- Join textiles with various sewing techniques using a standard needle and felt fabric.
- Begin to select and use different and appropriate finishing techniques to improve the appearance of a product such as hemming, tie-dye, fabric paints and digital graphics

UKS2

- Measure, make a seam allowance, tape, pin, cut, shape and join fabric with precision to make a more complex product.
- Join textiles using a variety of complex and intricate stitches with accuracy, using pins to temporarily hold woven fabrics in place.

Cooking & Nutrition

EYFS

- Weighing and measuring: Weigh and measure with adult assistance.
- Sharp equipment: Divide food using safety knives and adult assistance.
- Preparation: Mix ingredients with adult assistance
- Assembling: Place ingredients together with adult assistance.
- Cooking techniques: Show some understanding of the effect of baking.

KS1

- Weighing and measuring: Ensure scales are set to zero and placed on a flat surface. Pour liquids carefully.
- Sharp equipment: Using safety knives, chop and cut fruit and vegetables, and develop use of the bridge hold.
- Preparation: Stir and mix ingredients.
- Assembling: Attempt to spread ingredients evenly. Carefully arrange ingredients aesthetically.
- Cooking techniques: Bake and blend non-savoury foods.

LKS2

- Weighing and measuring: Use spoons to avoid spilling when weighing. Pour liquids until a given point.
- Sharp equipment: Using sharper equipment, peel, grate, slice, chop and develop use of the claw grip.
- Preparation: Sift, beat, knead and whisk ingredients.
- Assembling: Shape and thread food.
- Cooking techniques: Bake savoury foods, taking responsibility for timings.

UKS2

- Weighing and measuring: Understand and use a range of metric and imperial measures.
- Sharp equipment: Dice ingredients.
- Preparation: Combine and rub-in ingredients.
- Assembling: Roll out, sprinkle and trim food.
- Cooking techniques: Fry and boil savoury foods.



Structures: Transport

SKILLS

- Build simple structures, exploring how they can be made stronger, stiffer and more stable.
- Use their knowledge of existing products and their own experience to help generate their ideas.
- Design products that have a purpose and are aimed at an intended user.
- Explain how their products will look and work through talking and simple annotated drawings.
- Understand and follow simple design criteria.
- With help, measure and mark out, cut, shape and score materials with some accuracy.
- Assemble, join and combine materials.
- Evaluate their products and ideas against their simple design criteria.

KNOWLEDGE

- Recall the materials they have chosen to use and their relevant properties in reference to the design criteria.
- Describe the key features of their intended product.

VOCABULARY

strong, stiff, stable, structures, features, existing products, design criteria, plan, functional, properties, accurate, evaluate

Sewing: Monarchy

SKILLS

- Layer fabrics to create simple products.
- Use a basic running stitch with a large eye needle and Binca fabric.
- Begin to use simple finishing techniques to improve the appearance of their product, such as adding simple decorations.

KNOWLEDGE

- Describe a running stitch as passing in and out of the fabric at regular intervals

VOCABULARY

running stitch, fabric, layer, finishing, decorate, needle, thread, regular intervals

Cooking & Nutrition: Caring for myself and others

SKILLS

- Using safety knives, chop and cut fruit and vegetables, and develop use of the bridge hold.
- Stir and mix ingredients.
- Attempt to spread ingredients evenly and carefully arrange ingredients aesthetically.
- Bake and blend non-savoury foods.
- Design & evaluate work against set criteria

KNOWLEDGE

- Know that all food comes from plants or animals.
- Classify foods as fruit or vegetables and recall five examples of each.
- List reasons why fruit and vegetables are important for good health.

VOCABULARY

fruit, vegetables, plants, animals, health, diet, bridge hold, spread, arrange, design, evaluate, savoury, sweet



Mechanical Systems: The First Flight

SKILLS

- Understand and follow simple design criteria.
- With help, measure and mark out.
- Cut, shape and score materials with some accuracy.
- Explain positives and things to improve for existing products.
- Explore what materials products are made from.
- Talk about their design ideas and what they are making.
- Talk about and start to understand the simple working characteristics of materials and components.
- Explore and create products using mechanisms, such as levers, sliders, wheels and axles.

KNOWLEDGE

- Know that successful aviation design considers different forces such as gravity and drag, and manipulates these to achieve flight

VOCABULARY

design criteria, shape, score, characteristics, mechanisms, levers, sliders, wheels, axles, aviation, forces

Sewing: Christmas Decorations

SKILLS

- Layer fabrics to create simple products.
- Use a basic running stitch with a large eye needle and Binca fabric.
- Begin to use simple finishing techniques to improve the appearance of their product, such as adding simple decorations.

KNOWLEDGE

- Describe a running stitch as passing in and out of the fabric at regular intervals

VOCABULARY

running stitch, fabric, layer, finishing, decorate, needle, thread, regular intervals

Cooking & Nutrition: Farm Food

SKILLS

- Ensure scales are set to zero and placed on a flat surface.
- Pour liquids carefully.
- Using safety knives, chop and cut fruit and vegetables, and develop use of the bridge hold.
- Stir and mix ingredients.
- Attempt to spread ingredients evenly and carefully arrange ingredients aesthetically.
- Bake and blend non-savoury foods.

KNOWLEDGE

- Understand that all food comes from plants or animals (grown, caught or reared)
- Classify some foods as fruit/vegetables/meat/dairy
- Know that it is important for their wellbeing to have a healthy, balanced diet.

VOCABULARY

grown, caught, reared, fruit, vegetables, meat, dairy, healthy, balanced, diet, bridge hold, spread, bake, blend



Structures: Photograph Frames

SKILLS

- Use their knowledge of a broad range of existing products to help generate their ideas.
- Explore different initial ideas before coming up with a final design.
- With growing independence, measure and mark out to the nearest cm and mm;
- Cut, shape and score materials with some degree of accuracy
- Assemble, join and combine material and components with some degree of accuracy.
- Evaluate their product against their original design criteria.
- Understand that materials have both functional properties and aesthetic qualities.
- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products.

KNOWLEDGE

- Name the design criteria of a photograph frame

VOCABULARY

product characteristics, components, accuracy, functional properties, aesthetic qualities, strengthen, stiffen, reinforce

Sewing: Christmas Decorations

SKILLS

- Measure, cut, shape and join fabric accurately.
- Join textiles with various sewing techniques using a standard needle and felt fabric.
- Begin to select and use different and appropriate finishing techniques to improve the appearance of a product such as hemming, tie-dye, fabric paints and digital graphics

KNOWLEDGE

- Know that a back stitch is stronger and more secure than a running stitch

VOCABULARY

fabric, needle, finishing technique, appearance

Cooking & Nutrition: Seasonal Food

SKILLS

- Use spoons to avoid spilling when weighing.
- Pour liquids until a given point.
- Using sharper equipment, peel, grate, slice, chop and develop use the of the claw grip.
- Sift, beat, knead and whisk ingredients.
- Shape and thread food.
- Bake savoury foods, taking responsibility for timings.

KNOWLEDGE

- Understand where food is grown, caught and reared in the wider world.
- Understand and explain the meaning of seasonality in food production.
- Name different uses and functions of the same primary ingredient.
- Identify and name the different sections of the Eatwell plate, and understand the need for variety and balance in our diet.

VOCABULARY

seasonality, primary ingredient, Eatwell plate, variety, claw grip, grate, beat, knead, whisk



Mechanical Systems: Pontefract Castle

SKILLS

- Start to explain their choice of materials and components including function
- Test ideas out through using prototypes.
- Carefully select from a range of tools and equipment.
- Learn to use a range of tools and equipment safely.
- Explore what materials products are made from and suggest reasons for this.
- Consider their design criteria as they make progress and are willing to alter their plans, sometimes considering the views of others if this helps them to improve their product.
- Explain how mechanical systems such as levers and linkages create movement.
- Use mechanical systems in their products.

KNOWLEDGE

- Know that levers will have been used in different ways at Pontefract Castle to offer protection (e.g. drawbridges)

VOCABULARY

function, prototype, materials, improve, movement, linkages, levers, mechanical systems

Sewing: WW2

SKILLS

- Measure, cut, shape and join fabric accurately.
- Join textiles with various sewing techniques using a standard needle and felt fabric.
- Begin to select and use different and appropriate finishing techniques to improve the appearance of a product such as hemming, tie-dye, fabric paints and digital graphics

KNOWLEDGE

- Know that a back stitch is stronger and more secure than a running stitch

VOCABULARY

fabric, needle, finishing technique, appearance

Cooking & Nutrition - Bread & Pizza

SKILLS

- Use spoons to avoid spilling when weighing.
- Using sharper equipment, peel, grate, slice, chop and develop use the of the claw grip.
- Sift, beat, knead and whisk ingredients.
- Bake savoury foods, taking responsibility for timings.

KNOWLEDGE

- Understand where food is grown, caught and reared in the wider world.
- Identify and name the different sections of the Eatwell plate, and understand the need for variety and balance in our diet.

VOCABULARY

grate, knead, dough, savoury, balance, carbohydrates, protein, fibre, wholegrain, fruit, vegetables, dairy



Structures: Bridges

SKILLS

- Develop criteria and design a prototype for a purpose.
- Analyse and evaluate products according to design criteria.
- Apply understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products.
- With confidence, select from a wide range of tools and equipment.
- Learn to use a wide range of tools and equipment safely.
- Independently take exact measurements and mark out, to within 1mm.
- Cut a range of materials with precision and accuracy.
- Shape and score materials with precision and accuracy.
- Assemble, join and combine materials and components with accuracy.

KNOWLEDGE

- Recognise truss bridges and explain how they help to distribute compression forces.
- Recognise stone arches and explain how arches spread the load by redirecting the compression forces.
- Recognise suspension bridges and explain how they use cables to transfer weight to vertical columns.

VOCABULARY

tension, compression, beam, pillar, abutments, column, truss bridge, arch, suspension bridge, redirect, reinforce, criteria, prototype, precision, accuracy

Sewing: Ancient Greeks

SKILLS

- Measure, make a seam allowance, tape, pin, cut, shape and join fabric with precision to make a more complex product.
- Join textiles using a variety of complex and intricate stitches with accuracy, using pins to temporarily hold woven fabrics in place.

KNOWLEDGE

- Know that basic embroidery stitches include the running stitch, back stitch, satin stitch and French knot

VOCABULARY

seam allowance, precision, complex, intricate, accuracy, temporarily, embroidery stitch

Cooking & Nutrition: Sustainable Food

SKILLS

- Understand and use a range of metric and imperial measures.
- Dice ingredients.
- Combine and rub-in ingredients.
- Roll out, sprinkle and trim food.
- Fry and boil savoury foods.

KNOWLEDGE

- Understand and discuss the impact of food production on our planet and consider our role in developing sustainable nutrition.
- Research and recall the location of some of the ingredients in the food they make.
- Understand and explain how food labelling is used in the UK.

VOCABULARY

sustainable nutrition, food labelling, metric, imperial, dice, trim, savoury



Structures: Bridges

SKILLS

- Develop criteria and design a prototype for a purpose.
- Analyse and evaluate products according to design criteria.
- Apply understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products.
- With confidence, select from a wide range of tools and equipment.
- Learn to use a wide range of tools and equipment safely.
- Independently take exact measurements and mark out, to within 1mm.
- Cut a range of materials with precision and accuracy.
- Shape and score materials with precision and accuracy.
- Assemble, join and combine materials and components with accuracy.

KNOWLEDGE

- Recognise truss bridges and explain how they help to distribute compression forces.
- Recognise stone arches and explain how arches spread the load by redirecting the compression forces.
- Recognise suspension bridges and explain how they use cables to transfer weight to vertical columns.

VOCABULARY

tension, compression, beam, pillar, abutments, column, truss bridge, arch, suspension bridge, redirect, reinforce, criteria, prototype, precision, accuracy

Sewing: Christmas Decorations

SKILLS

- Measure, make a seam allowance, tape, pin, cut, shape and join fabric with precision to make a more complex product.
- Join textiles using a variety of complex and intricate stitches with accuracy, using pins to temporarily hold woven fabrics in place.

KNOWLEDGE

- Know that basic embroidery stitches include the running stitch, back stitch, satin stitch and French knot

VOCABULARY

seam allowance, precision, complex, intricate, accuracy, temporarily, embroidery stitch

Cooking & Nutrition: Healthy Options

SKILLS

- Understand and use a range of metric and imperial measures.
- Dice ingredients.
- Combine and rub-in ingredients.
- Roll out, sprinkle and trim food.
- Fry and boil savoury foods.

KNOWLEDGE

- List reasons why a balanced diet contributes to an overall healthy lifestyle
- Understand and explain how food labelling is used in the UK.

VOCABULARY

nutrition, healthy lifestyle, balanced diet, food labelling, metric, imperial, dice, trim, savoury