

**GUARDIAN ANGELS' RCPS AND OUR LADY OF LOURDES RCPS
DESIGN & TECHNOLOGY PROGRESSION OF SKILLS**

NURSERY

Learning Journey One

Mechanisms

Final piece – make a card

- ✓ Design a simple card
- ✓ Communicate why they like/dislike a design
- ✓ Fold a piece of card in half
- ✓ Decorate the front of the card with mark making and sticking materials to it.
- ✓ Able to communicate who their card is for



Learning Journey Two

Structure

Final piece – Lego chair

- ✓ Identify chairs small enough for toys
- ✓ Select lego bricks and arrange in a design
- ✓ Join lego bricks to create chair shape
- ✓ Communicate if the structure is suitable as a chair for a toy



Learning Journey Three

Cooking & Nutrition

***Final piece – Breakfast including bread
Explore – Paul Hollywood***

- ✓ Use a toaster with supervision
- ✓ Select a suitable topping
- ✓ Spread topping evenly
- ✓ Evaluate different types of bread and communicate likes and dislikes



RECEPTION

Learning Journey One

Mechanisms

Final piece – Sliding Character

Explore – Alex Scheffler

- ✓ Choose a character from a familiar story
- ✓ Create a basic design based on their character
- ✓ Cut character out
- ✓ Stick the character to a lever
- ✓ Move the lever across a scene
- ✓ Communicate that the character is moving in and out of the scene
- ✓ Begin to evaluate, communicating likes and dislikes of final design



Learning Journey Two

Structure

Final piece – make a picture frame

Explore – Virtual Art Gallery.

- ✓ Research and communicate what picture frames they like and dislike
- ✓ Select a person to receive the frame as a present
- ✓ Communicate what they would like their frame to look like using provided examples
- ✓ Combine components to make simple joints/joins
- ✓ sticking
- ✓ Discuss and communicate how the components are sticking together
- ✓ Explore different materials
- ✓ Decorate the picture frame



Learning Journey Three

Cooking & Nutrition

Final piece – Filling breakfast with egg & bread

Explore – Mary Berry

- ✓ Use a toaster with supervision
- ✓ Select a suitable topping
- ✓ Spread topping evenly
- ✓ Evaluate different types of bread and communicate likes and dislikes
- ✓ Boil an egg
- ✓ Evaluate eggs which have been boiled for different times
- ✓ Evaluate tasting egg with bread
- ✓ Communicate likes and dislikes



YEAR 1

Learning Journey One <i>Mechanisms</i> Final piece – make a moving vehicle Explore – Rolls Royce ✓ Research moving vehicles ✓ Create a design based on a criteria ✓ Choose suitable materials for the brief ✓ Label design with correct vocabulary ✓ Saw the dowel ✓ Fix the dowel to the wheel ✓ Explore materials to stick the axle to the vehicle ✓ Test the vehicle can move independently when pushed ✓ Evaluate at mid-point to make changes to their final design and at the end point against the initial design brief.		Learning Journey Two <i>Textiles</i> Final piece – make a hand puppet Explore – Jim Henson ✓ Design hand puppet based on criteria ✓ Express likes and dislikes ✓ Align two pieces of fabric ✓ Join fabric together using glue, staples or tape ✓ Create and use a template ✓ Measure my hand to make puppet the correct size ✓ Decorate my puppet to initial design brief ✓ Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief		Learning Journey Three <i>Cooking & Nutrition</i> Final piece – make a healthy sandwich Explore – John Mantagu ✓ Design a healthy sandwich ✓ Label design ✓ Use an exploding diagram or cross-sectional diagram with correct vocabulary ✓ Cut, grate and slice ingredients ✓ Spread selected condiments ✓ Fold, wrap and cut sandwich ✓ Evaluate own and others sandwiches suggesting potential improvements ✓ Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief.
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YEAR 2

Learning Journey One

Structure

Final piece – Baby Bears Chair

Explore – The Windsor Chair

- ✓ Recap on joints/joins/combining components
- ✓ Design a chair to be strong, stiff, stable and support a teddy
- ✓ Create a join and structure
- ✓ Cut, stick, saw, glue
- ✓ Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief.



Learning Journey Two

Textiles

Final piece – Make a pouch

Bruce Oldfield

- ✓ Research uses of pouches and plan and design their own pouch
- ✓ Identify intended use of pouch
- ✓ Label design using correct vocabulary
- ✓ Design and use a template
- ✓ Measure suitable fabric
- ✓ Thread a needle
- ✓ Tie a knot at either end of the thread
- ✓ Sew even, neat running stitches
- ✓ Design decorations for the final product
- ✓ Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief.



Learning Journey Three

Cooking & Nutrition

Final piece – vegetarian soup

Explore - Dr John T Dorrance

- ✓ Design recipe for soup based upon required criteria
- ✓ Build on chopping skills from Year 1
- ✓ Be able to grate, dice, slice and crush vegetables.
- ✓ Make a stock
- ✓ Add the vegetables and salt and pepper to taste
- ✓ Boil the soup
- ✓ Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief.



YEAR 3

Learning Journey One <i>Mechanisms</i> Final piece – Pneumatic Toy Explore – John Boyd Dunlop ✓ Design a pneumatic toy based on a design criteria. ✓ Produce cross sectional diagram with correct vocabulary labelled ✓ Create a pneumatic system using balloon and pump ✓ Build a secure toy to house the pneumatic system ✓ Select and evaluate a wider range of materials to make the toy ✓ Make an aesthetically pleasing toy ✓ Children will be able to evaluate at mid-point to make changes to their final design and at the end point against the initial design brief.		Learning Journey Two <i>Structure</i> Final piece – Make a castle Explore – Gaudi (link to Art & Design) ✓ Design a castle based on a design brief ✓ Make neat 3D shapes using nests ✓ Design using exploded diagram, cross sectional diagram or computer programme ✓ Stack shapes and recyclable materials to make the structures ✓ Create a castle base to the secure structure ✓ Adorn castle with facades and other decorative features ✓ Cut, measure, stick ✓ Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief.		Learning Journey Three <i>Cooking & Nutrition</i> Final piece – To make a hot sweet desert Explore – Jaime Oliver ✓ Build on chopping skills from KS1 ✓ Design and make a fruit crumble ✓ Create a cross-sectional diagram of crumble labelled with correct vocabulary ✓ Prepare fruit for filling ✓ Add sugar to the filling and boil ✓ Make crumble by combining ingredients until the correct consistency ✓ Add topping to fruit filling and bake. ✓ Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief.
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YEAR 4

Learning Journey One

Textiles

Final Piece – Book Sleeve with fastening

Explore – Heribert Bauer

- ✓ Write a design criteria for a product, articulating decisions made.
- ✓ Design a personalised book sleeve.
- ✓ Make and test a paper template with accuracy and in keeping with the design criteria.
- ✓ Measuring, marking and cutting fabric using a paper template.
- ✓ Select a stitch style to join fabric.
- ✓ Sew neatly using small regular stitches.
- ✓ Incorporate a fastening to a design.
- ✓ Test and evaluate an end product against the original design criteria.
- ✓ Decide how many of the criteria should be met for the product to be considered successful.
- ✓ Suggest modifications for improvement.
- ✓ Articulate the advantages and disadvantages of different fastening types.



Learning Journey Two

Electrical

Final Piece – Torch

Explore – David Misell

- ✓ Design a torch, giving consideration to the target audience and creating both design and success criteria focusing on features of individual design ideas.
- ✓ Make a torch with a working electrical circuit and switch.
- ✓ Use appropriate equipment to cut and attach materials.
- ✓ Assemble a torch according to the design and success criteria.
- ✓ Evaluate electrical products.
- ✓ Test and evaluating the success of a final product.
- ✓ Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief.



Learning Journey Three

Cooking & Nutrition

Final Piece - Make a pescatarian light healthy lunch (fish pasta bake)

Explore – Peter Durand

- ✓ Design a fish pasta bake based on the criteria of a pescatarian light healthy lunch
- ✓ Use cross-sectional diagram with correct vocabulary
- ✓ Fry onions
- ✓ Test vegetables to ensure they are tender
- ✓ Make the mixture adding in tinned fish
- ✓ Continually test
- ✓ Use the correct temperature and know how to adjust
- ✓ Stir, toss and mix ingredients
- ✓ Follow health and safety guidance
- ✓ Make the pasta bake
- ✓ Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief.



YEAR 5

Learning Journey One

Structure & Mechanisms

Final Piece – Puppet Theatre

Explore – Sydney Smirke

- ✓ Design a theatre to include backdrop, stage and curtain with a pulley system.
- ✓ Design and make a theatre suitable for hand puppets
- ✓ Measure materials and cut and stick together
- ✓ Design curtains with a pulley system
- ✓ Select and cut material for the curtains
- ✓ Select a material for a curtain rod and measure and cut to size
- ✓ Create simple pulley system using suitable string
- ✓ Use a weight on the pulley
- ✓ Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief.



Learning Journey Two

Electricals

Final Piece – Electric Steady Hand Game

Game

Explore – John Spinello

- ✓ Design a steady hand game, identifying and naming the components required.
- ✓ Draw a design from three different perspectives.
- ✓ Generate ideas through sketching and discussion.
- ✓ Model ideas through prototypes.
- ✓ Understand the purpose of products (toys), including what is meant by 'fit for purpose' and 'form over function'.
- ✓ Construct a stable base for a game.
- ✓ Accurately cutting, folding and assembling a net.
- ✓ Decorate the base of the game to a high-quality finish.
- ✓ Make and test a circuit.
- ✓ Incorporate a circuit into a base.
- ✓ Test their own and others' finished games, identifying what went well and making suggestions for improvement.
- ✓ Gather images and information about existing children's toys.
- ✓ Analyse a selection of existing children's toys.
- ✓ Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief.



Learning Journey Three

Cooking & Nutrition

Final Piece – Italian Pasta Dish

Explore – Delia Smith

- ✓ Design an Italian pasta dish based on the criteria of healthy dinner
- ✓ Create recipe for pasta sauce
- ✓ Use cross-sectional diagram with correct vocabulary
- ✓ Build on Year 4 skills - fry onions
- ✓ Add ingredient from recipe design
- ✓ Test vegetables to ensure they are tender
- ✓ Continually test
- ✓ Use the correct temperature and know how to adjust
- ✓ Stir, toss and mix ingredients
- ✓ Follow health and safety guidance
- ✓ Boil pasta understanding timings
- ✓ When both components are ready, serve in line with initial brief
- ✓ Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief.



YEAR 6

Learning Journey One <i>Structure</i> Final Piece - Bridge Explore – Isambard Kingdom Brunel ✓ Create a design based on a brief ✓ Label design plan using correct vocabulary ✓ Use computer programme to create design ✓ Measure and cut out suitable materials ✓ Select appropriate tools and equipment for each stage of build ✓ Follow health and safety rules ✓ Explain and justify why selecting appropriating materials is an important part of the design process ✓ Join materials using a variety of methods; hot glue, wooden joins, staples, sticking ✓ Test bridge against design criteria ✓ Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief.		Learning Journey Two <i>Textiles</i> Final piece – Cushion with applique Explore – Orla Keighley (link to Art & Design) ✓ Design and make a template from an existing cushion and applying individual design criteria. ✓ Follow design criteria to create a cushion. ✓ Select and cut fabrics with ease using fabric scissors. ✓ Thread needles with independence. ✓ Tying knots with independence. ✓ Sew cross stitch to join fabric. ✓ Decorate fabric using appliqué. ✓ Complete design ideas with stuffing and sewing the edges. ✓ Evaluate an end product and thinking of other ways in which to create similar items. ✓ Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief.		Learning Journey Three <i>Cooking & Nutrition</i> Final piece – Curry dish with bread accompaniment. Explore – John Landis Mason ✓ Design a curry dish based on the criteria of specialty meal for friends with a Naan bread accompaniment. ✓ Create recipe for curry sauce ✓ Use cross-sectional diagram with correct vocabulary ✓ Decide on meat (or tofu) to include and cook accordingly ✓ Build on Year 4 skills - fry vegetables and meat ✓ Add ingredients from recipe design to make the sauce ✓ Test vegetables to ensure they are tender ✓ Continually test ✓ Use the correct temperature and know how to adjust ✓ Stir, toss and mix ingredients ✓ Follow health and safety guidance ✓ Boil rice understanding timings ✓ Make naan bread from scratch ✓ Fry naan bread ✓ When all components are ready, serve in line with initial brief ✓ Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief.
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