YEAR: 1 **TERM: Summer 2** **TITLE: Design, Make and Evaluate a wheeled vehicle (Mechanisms – Wheels and Axles)**

REVISION / REMIND / REVISIT Assembled vehicles with moving wheels using construction kits. Explored moving vehicles through play. Gained some experience of designing, making and evaluating products for a specified user and purpose. Developed some cutting, joining and finishing skills with card.

COHERENCE	CREDIBILITY	CREATIVITY	COMPASSION	COMMUNITY
THE BIG QUESTION **Can we be as inventive as the Wright Brothers?** **LINKS to NC/rationale:** **Design** Generate initial ideas and simple design criteria through talking and using own experiences Develop and communicate ideas through drawings and mock-ups **Make** Select from and use a range of tools and equipment to perform practical tasks such as cutting and joining to allow movement and finishing Select from and use a range of materials and components such as paper, card, plastic,	**Knowledge Acquired Investigative and Evaluative Activities:** Explore and evaluate a range of wheeled products such as toys and everyday objects. Children observe number, size, position and methods of fixing wheels and axles. Draw an example of a wheeled product, stating the user and the purpose and labelling the main parts eg. body, chassis, wheels, axles, and axle holders Walk round the school building recording how wheels and axles are used in everyday life **Skills/Concepts Explored Focused Tasks:** Using construction kits with wheels and axles, children make a product that moves Explore how wheels and axles may be assembled as	**A variety of contributions to a classroom display based on the Big Question** Photos of investigations Models of wheeled vehicles What special/original features does your vehicle have?	Working with your family Sense of achievement Celebrate key figures from history Aspire to achieve 'The Wright Brothers Award' Children vote for the most inventive vehicle **The 'answers' to the BIG QUESTION** **DEEP DIVE**	Photos uploaded to share with parents Parents/family members – Be an Inventor for a Day

	and wood according to their characteristics **Evaluate** Explore and evaluate a range of products with wheels and axles Evaluate their ideas throughout their products against original criteria **Technical Knowledge and Understanding** Explore and use wheels, axles, and axle holders Distinguish between fixed and freely moving axles Know and use technical vocabulary relevant to the project	either fixed axles or free axles Explore different ways of making axle holders and importance of making sure the axles run freely within their holders Children mark out, hold, cut and join components correctly. **Key vocabulary:** Vehicle, wheel, axle, axle holder, chassis, body, cab Assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism Names of tools, equipment and materials used Design, make, evaluate, purpose, user, criteria, functional	**S.M.I.L.E** Exploring and Explorers Explorer Day – come to school as a famous explorer, build a giant aeroplane to use on expeditions Create their own flying machine	**Health and safety** Pupils should be taught to work safely, using tools, equipment, materials, components and techniques appropriate to the task. Risk assessments should be carried out prior to undertaking this project.	
	ASSESSMENT CRITERIA: • Use simple design criteria; state what their products are and who and what they are for. • Generate ideas using their own experiences and existing products: using talk and drawing. • Select from a range of tools, equipment, materials and components. • Follow procedures for safety and hygiene: cut, join and finish a range of materials and components. • Make simple judgements about their products and ideas against design criteria. • Explore how the products work and are used, what materials they are made from and what they like and dislike about them. • Know about the simple characteristics of materials and use the correct technical vocabulary.				

Cross Curricular Links

Science – working scientifically: ask simple questions and observe closely. Explore use of everyday materials.
Mathematics – number of wheels, more than, less than, equal. Measuring length using non-standard and standard units.
Spoken Language – use of technical vocabulary. Ask relevant questions to extend understanding and build vocabulary and knowledge. Give well-structured descriptions and explanations. Develop speaking and listening skills. Use spoken language to develop understanding through imagining and exploring ideas.
Art and Design – use a range of media and materials creatively to design and make products.

YEAR: 1 **TERM: Spring 1** **TITLE: Design, Make and Evaluate a Hand Puppet (Textiles – Templates and Joining Techniques)**

REVISION / REMIND / REVISIT

Explored and used different fabrics. Cut and joined fabrics with simple techniques. Thought about the user and purpose of products.

COHERENCE

THE BIG QUESTION

How can we make story time exciting for the children in Nursery?

LINKS to NC/rationale:

Design

Design a functional and appealing product for a chosen user and purpose based on simple design criteria

Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and IT.

Make

Select from and use a range of tools and equipment for marking out, cutting, joining and finishing

CREDIBILITY

Knowledge Acquired Investigative and Evaluative Activities:

Investigate and evaluate existing products. Explore and compare – fabrics, joining techniques, finishing techniques and fastenings used.

Develop understanding – How many parts is it made from? What is it joined with? Why have these joining techniques been chosen? Who might use it and why?

Make drawings of existing products, stating the user and the purpose. Identify and label the fabrics, fastenings and techniques used.

Skills/Concepts Explored Focused Tasks:

Investigate fabrics to determine which one is best for purpose of product they are creating

Explore templates or simple paper patterns.

CREATIVITY

A variety of contributions to a classroom display based on the Big Question

Produce a hand puppet – link to a story/nursery rhyme.

Performance to the Nursery children

Photos of the puppets and of the performance

Photos of the Nursery children and their reactions to the story/puppets.

COMPASSION

The 'answers' to the BIG QUESTION

DEEP DIVE

Making story time exciting for the children

Did the story/puppets hold the children's attention?

Were the children engaged in the story?

Did the story make the children laugh?

COMMUNITY

Year 1 children visit Nursery to perform their stories/rhymes

Photos uploaded to share with parents

Film Performance

	Select from and use textiles according to their characteristics **Evaluate** Explore and evaluate a range of existing textile products Evaluate their ideas and their final products against original design criteria **Technical knowledge** Understand how simple 3D textile products are made using a template to create 2 identical shapes 'Understand how to join fabrics using different techniques – running stitch, glue, over stitch, stapling Explore different finishing techniques – painting, fabric crayons, stitching, sequins, buttons, and ribbons Know and use technical vocabulary relevant to the project	Explore use of appropriate tools to mark out, tape or pin the fabric to the templates or paper patterns and cut out the relevant fabric pieces for the product Explore joining techniques – running stitch including threading own needle, stapling, lacing, gluing. Talk about the advantages and disadvantages of each technique Finishing techniques – sewing buttons, 3D fabric paint, gluing sequins, printing. **Key vocabulary:** Names of existing products, joining and finishing techniques, tools, fabrics and components Template, pattern pieces, mark out, join, decorate, finish Features, suitable, quality, mock up, design brief, design criteria, make, evaluate, user, purpose, function		**Health and Safety** Pupils should be taught to work safely, using tools equipment, materials, components and techniques appropriate to the task. Risk assessments should be carried out prior to undertaking this project.	
	ASSESSMENT CRITERIA: • Explore how the products work and are used, what materials they are made from and what they like and dislike about them • Know about the simple characteristics of materials and use the correct technical vocabulary.				

Cross Curricular Links

Spoken language – Develop vocabulary and build knowledge. Ask questions throughout the process to check understanding. Listen and respond to adults. Explain and articulate their ideas orally.

Art and design – quick drawings or detailed observational drawings of one product to develop and share ideas and develop drawing skills. Use colour, pattern, texture, and shape as appropriate.

Science – everyday materials. Investigate physical properties of fabric types against suitability for the product to be made.

Mathematics – measurement using non-standard and standard units.

Computing – use technology purposefully to create and manipulate digital content.

YEAR: 1 **TERM: Spring Term 2** **TITLE: Design, Make and Evaluate a Fruit Kebab (Food – Preparing Fruit and Vegetables)**

REVISION / REMIND / REVISIT

Experience of common fruit and vegetables, undertaking sensory activities i.e. appearance taste and smell. Experience of cutting soft fruit and vegetables using appropriate utensils

COHERENCE	CREDIBILITY	CREATIVITY	COMPASSION	COMMUNITY
THE BIG QUESTION **Can you explain to our Governors about healthy eating?** **LINKS to NC/rationale:** **Design** Design appealing products for a particular user based on simple design criteria Generate initial ideas and design criteria through investigating a variety of fruit and vegetables Communicate these ideas through talk and drawings **Make** Use simple utensils and equipment to peel, cut, slice, squeeze, grate, and chop safely Select from a range of fruit and vegetables according to their characteristics e.g., colour,	**Knowledge Acquired Investigative and Evaluative Activities:** Examine a range of fruit and vegetables. Develop understanding – What is this called? Who has eaten this before? Where is it grown? When can it be harvested? What are the different parts called? Children handle, smell and taste fruit and vegetables to describe them through talking and drawing – describe shape, colour, feel, taste. Evaluate existing products to find out what they like the best. Children investigate preferences of their intended users **Skills/Concepts Explored Focused Tasks:** Understand basic food hygiene practises when handling food including the importance of following instructions to control risk	**A variety of contributions to a classroom display based on the Big Question** Photos of children tasting fruit Children's recorded plans of their kebabs/fruit salad Photos of children peeling, chopping, grating the fruit Produce a fruit kebab/fruit salad Invite Governors to sample food and 'teach' them about healthy eating 'Classroom countdown' to when Governors will be visit	Explain how we can celebrate using food. Influence and shape the world around us – help others to live healthy lives Children explain healthy eating to impress their visitors Governors 'test' the children by asking them questions **The 'answers' to the BIG QUESTION** **DEEP DIVE**	Invite Governors to a healthy picnic 

	texture, and taste to create a chosen product **Evaluate** Taste and evaluate a range of fruit and vegetables to determine the intended user and purpose **Technical knowledge and Understanding** Understand where a range of fruit and vegetables come from e.g. farmed or grown at home Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of The Eatwell Plate Know and use technical and sensory vocabulary relevant to the project	Use simple utensils to practise food processing skills such as washing, grating, peeling, slicing, squeezing – Do we eat the whole fruit/which parts do we eat? Explore different effects achieved by different processes Understand healthy eating advise using The Eatwell Plate model and the importance of fruit and vegetables in a balanced diet – Why is important to eat fruit and vegetables? Why is it important to wash fruit and vegetables **Key vocabulary:** Fruit and vegetable names, names of equipment and utensils Sensory vocabulary e.g. Soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard Flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients, planning, investigating tasting, arranging, popular, design, evaluate, criteria.		**Health and safety** Pupils should be taught to work safely and hygienically, using tools, equipment, techniques and ingredients appropriate to the task. Prior to undertaking this project risk assessments should be carried out, including identifying whether there are children who are not permitted to taste or handle any food ingredients or products.	
	ASSESSMENT CRITERIA: Know how to prepare simple dishes safely and hygienically without a heat source.				

Cross Curricular Links

Science – understand that plants have leaves, stems, roots, flowers, and fruits; understand the importance of growing plants and how seasons affect growth. Talk about a balanced diet, different types of food and hygiene.

Spoken language – children develop and use a sensory vocabulary. Ask questions to check understanding; use the correct terminology for equipment and food processes.

Writing – develop descriptive writing based on first-hand experience of tasting fruit and vegetables. Instructions on how to use one of the utensils; how to prepare e.g. a fruit for eating. Children write a simple account about how they made their food product.

Mathematics – carry out a simple survey to find out which are the favourite fruits/vegetables; construct and interpret the information in e.g. pictograms and bar graphs.

Art and design – use and develop drawing skills.

Computing – use digital photographs to help order the main stages of making and support children's writing.