Unit and Purpose	Lesson name	Lesson No.	Learning objective	Expected Standard (EXS)	Greater depth (GDS)	National curriculum links
Structures **Freestanding structures - Pencil pot**	Exploring stability	1	To explore stability by balancing.	I can find structures in the world around me. I can explore stability through different balances. I can explain why I feel more stable in a balance with a wider base.	I can recognise and compare different structures in the environment and explain how their shapes help them work. I can investigate and explain how changing the base of a structure affects its stability. I can predict and justify which balances will be most stable and explain my reasoning using appropriate vocabulary.	Evaluate Pupils should be taught to: Explore and evaluate a range of existing products. Technical knowledge Pupils should be taught to: Build structures, exploring how they can be made stronger, stiffer and more stable.
	Building stable towers	2	To explore wide or narrow bases by building towers.	I can explain why some structures are more stable than others. I can make a plan and work with others. I can test my structure and make changes.	I can explain why a structure is or is not stable using observations from testing. I can independently adapt and improve my structure based on what I have learned. I can work effectively with others, suggesting ideas and explaining decisions during the design and build process.	Design Pupils should be taught to: Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. Make Pupils should be taught to: Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. Evaluate Pupils should be taught to: Evaluate their ideas and products against design criteria. Technical knowledge Pupils should be taught to: Build structures, exploring how they can be made stronger, stiffer and more stable.

	Stabilising structures with weight	3	To test a structure's stability with weight added in different places.	I can build a structure with a stable base. I can explain how adding weight to the top of a structure makes it less stable. I can explain how adding weight to the base of a structure makes it more stable.	I can design and build a structure that remains stable under different conditions. I can explain how and why adding weight in different places affects stability. I can evaluate my structure and suggest specific improvements based on its performance.	Design Pupils should be taught to: Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. Make Pupils should be taught to: Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. Evaluate Pupils should be taught to: Evaluate their ideas and products against design criteria. Technical knowledge Pupils should be taught to: Build structures, exploring how they can be made stronger, stiffer and more stable.
	Designing a stable pencil pot	4	To design a stable structure that meets the needs of a user.	I can explain what makes a product appealing to a user. I can sketch my pencil pot design clearly. I can plan how to make my product stable.	I can explain how my design meets the needs of a user and suggest improvements. I can produce a clear and detailed design sketch with labelled features. I can justify my design choices, including materials and structure, based on stability and purpose.	Design Pupils should be taught to: Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. Evaluate Pupils should be taught to: Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.
	Making a stable pencil pot	5	To use a variety of cutting and joining techniques to make a stable product.	I can choose the best method to join materials. I can use scissors to cut a shape neatly. I can follow a plan and explain the steps to make a product.	I can select and justify appropriate joining methods for different materials. I can cut and assemble materials accurately and explain how I ensured precision. I can follow and adapt a plan, explaining each step and making changes where necessary.	Make Pupils should be taught to: Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Evaluate Pupils should be taught to: Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria. Technical knowledge Pupils should be taught to: Build structures, exploring how they can be made stronger, stiffer and more stable.
Food **Preparing fruit and vegetables - Making a smoothie**	Fruits	1	To identify fruits.	I can name fruits and vegetables. I can identify seeds. I can sort fruits and non-fruits.	I can explain how fruits and vegetables are different and give examples with reasoning. I can identify and describe seeds and explain their purpose. I can sort and classify foods using more than one criterion and justify my choices.	Cooking and nutrition Pupils should be taught to: Understand where foods come from.

	Growing	2	To describe where fruits and vegetables grow.	I can name places where fruits and vegetables grow. I can decide whether a fruit or vegetable will grow aboveground or underground. I can make predictions about where edible parts of plants will grow.	I can explain where different fruits and vegetables grow and give reasons for my ideas. I can make accurate predictions about plant growth and explain my thinking using prior knowledge. I can describe and compare different edible parts of plants.	Cooking and nutrition Pupils should be taught to: Understand where foods come from.
	Cutting and juicing	3	To practise food preparation skills.	I can use a fork to hold foods I am cutting. I can use a table knife to cut soft foods. I can use a juicer to get juice from fruits. I can work safely and follow instructions.	I can select appropriate tools for preparing food and explain why they are suitable. I can use tools safely and efficiently while explaining how I stay safe. I can complete food preparation tasks independently and suggest ways to improve my technique.	Make Pupils should be taught to: Select from and use a range of tools and equipment to perform practical tasks. Cooking and nutrition Pupils should be taught to: Understand where foods come from.
	Testing ingredients	4	To select ingredients for a recipe.	I can choose fruits and vegetables to taste. I can suggest fruits to put together based on taste. I can describe a food's taste. I can decide on three ingredients to create a recipe.	I can describe and compare tastes using a range of descriptive vocabulary. I can justify my choices when combining ingredients based on flavour and texture. I can design a simple recipe and explain why the chosen ingredients work well together.	Make Pupils should be taught to: Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. Cooking and nutrition Pupils should be taught to: Understand where foods come from.
	Making smoothies	5	To apply food preparation skills to a recipe.	I can gather the ingredients for a simple recipe. I can cut and juice fruits as part of a recipe. I can use my senses to compare my smoothie with my partner's.	I can follow a recipe independently and adapt it if needed. I can evaluate my finished product using my senses and suggest improvements. I can compare my work with others and explain similarities and differences.	Cooking and nutrition Pupils should be taught to: Use the principles of a healthy and varied diet to prepare dishes.
	Evaluating	6	To evaluate against the design brief.	I can colour a template to create a carton design. I can choose my favourite recipe. I can talk to the class about the design brief.	I can explain how design choices make a product appealing to a specific user. I can create a detailed and purposeful design linked to a clear brief. I can present and explain my ideas clearly to others using appropriate vocabulary.	Evaluate Evaluate their ideas and products against design criteria. Cooking and nutrition Pupils should be taught to: Use the principles of a healthy and varied diet to prepare dishes.
Mechanisms **Wheels and axles - Making a wheeled toy**	Wheels	1	To develop cutting skills by shaping wheels.	I can choose the most suitable tool for cutting different shapes. I can carefully cut out wheels of different shapes. I can design and create a way to attach wheels securely to a base.	I can evaluate different designs and explain which features make them effective. I can design a product that meets specific criteria and explain my decisions. I can identify materials and justify why they are suitable for my design.	Design Pupils should be taught to: Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. Make Pupils should be taught to: Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. Technical knowledge Pupils should be taught to: Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

	Improving wheels: Part one	2	To refine cutting skills by shaping round wheels.	I can carefully cut out curved wheels. I can find the middle of a circle. I can test and compare different shaped wheels.	I can accurately measure, cut, and shape materials for wheels. I can explain how different wheel shapes affect movement and performance. I can test and refine my work to improve accuracy and function.	Design Pupils should be taught to: Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. Make Pupils should be taught to: Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. Evaluate Pupils should be taught to: Evaluate their ideas and products against design criteria. Technical knowledge Pupils should be taught to: Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.
	Improving wheels: Part two	3	To evaluate by comparing and discussing different wheel designs.	I can use scissors to make my wheel smoother. I can compare my wheel to the design criteria. I can identify uses for my pull-along base.	I can explain how different wheel designs affect movement and stability. I can evaluate my design against criteria and suggest detailed improvements. I can compare different designs and explain which is most effective and why.	Design and technology Design Pupils should be taught to: Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. Make Pupils should be taught to: Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. Evaluate Pupils should be taught to: Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria. Technical knowledge Pupils should be taught to: Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

	Designing a pull-along toy	4	To create a design by drawing plans for a pull-along toy.	I can discuss the needs of the user. I can draw a picture to show my design choices. I can name the materials used in my design.	I can design a structure that meets a specific purpose and user need. I can explain my design choices in relation to function, materials, and appearance. I can annotate my design with detailed explanations of key features.	Design Pupils should be taught to: Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. Make Pupils should be taught to: Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. Technical knowledge Pupils should be taught to: Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.
	Making a pull-along toy	5	To apply finishing techniques by decorating a pull-along toy.	I can choose the best material to make a pull-along toy from. I can decorate my toy carefully. I can share what I like and dislike about my toy with my class.	I can justify my choice of materials based on their properties and suitability. I can evaluate my finished product against my design criteria and user needs. I can reflect on the whole process and suggest specific improvements for future designs.	Make Pupils should be taught to: Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. Evaluate Pupils should be taught to: Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria. Technical knowledge Pupils should be taught to: Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

Project focus
Brief and existing
Practising skills
Design
Select tools and make
Evaluate

Skills based LO

Knowledge based LO