



As a Year 1 Designer I will know...

Unit title Constructing a windmill	To understand that the shape of materials can be changed to improve the strength and stiffness of structures.	To understand that cylinders are a strong type of structure (and, therefore, they are the main shape used for windmills and lighthouses).	To understand that axles are used in structures and mechanisms to make parts turn in a circle.
FOCUS: Structures	To begin to understand that different structures are used for different purposes.	To know that a structure is something that has been made and put together.	
Unit title Puppets	To know that 'joining technique' means connecting two pieces of material together.	To know that there are various temporary methods of joining fabric by using staples, glue or pins.	To understand that different techniques for joining materials can be used for different purposes.
FOCUS: Textiles	To understand that a template (or fabric pattern) is used to cut out the same shape multiple times.	To know that drawing a design idea is useful to see how an idea will look.	



Unit title Making a moving story book (Exploring sliders and movement) FOCUS: Mechanisms	To know that a mechanism is the parts of an object that move together.	To know that a slider mechanism moves an object from side to side.	To know that a slider mechanism has a slider, slots, guides and an object.
	To know that bridges and guides are bits of card that purposefully restrict the movement of the slider.		
Unit title Fruit and vegetables FOCUS: Food and Nutrition	To understand the difference between fruits and vegetables.	To understand that some foods typically known as vegetables are actually fruits (e.g. cucumber).	To know that a blender is a machine which mixes ingredients together into a smooth liquid.
	To know that a fruit has seeds and a vegetable does not.	To know that fruits grow on trees or vines.	To know that vegetables can grow either above or below ground.
	To know that vegetables can come from different parts of the plant.		



As a Year 1 Designer I can...

Structures: Constructing a windmill

- ✓ Learning the importance of a clear design criteria.
- ✓ Including individual preferences and requirements in a design.
- ✓ Making stable structures from card, tape and glue.
- ✓ Learning how to turn 2D nets into 3D structures.
- ✓ Following instructions to cut and assemble the supporting structure of a windmill.
- ✓ Making functioning turbines and axles which are assembled into a main supporting structure.
- ✓ Evaluating a windmill according to the design criteria, testing whether the structure is strong and stable and altering it if it isn't.
- ✓ Suggest points for improvements.

Textiles: Puppets

- ✓ Using a template to create a design for a puppet.
- ✓ Cutting fabric neatly with scissors.
- ✓ Using joining methods to decorate a puppet.
- ✓ Sequencing steps for construction.
- ✓ Reflecting on a finished product, explaining likes and dislikes.



As a Year 1 Designer I can...

Mechanisms: Making a moving story book (Exploring sliders and movement)

- ✓ Explaining how to adapt mechanisms, using bridges or guides to control the movement.
- ✓ Designing a moving story book for a given audience.
- ✓ Following a design to create moving models that use levers and sliders.
- ✓ Testing a finished product, seeing whether it moves as planned and if not, explaining why and how it can be fixed.
- ✓ Reviewing the success of a product by testing it with its intended audience.

Food: Fruit and vegetables

- ✓ Designing smoothie carton packaging by-hand or on ICT software.
- ✓ Chopping fruit and vegetables safely to make a smoothie.
- ✓ Identifying if a food is a fruit or a vegetable.
- ✓ Learning where and how fruits and vegetables grow.
- ✓ Tasting and evaluating different food combinations.
- ✓ Describing appearance, smell and taste.
- ✓ Suggesting information to be included on packaging.