

O = Oracy skills. LT = Learning Technologies. PSE = Personal, social and emotional skills. MC = Meta-cognitive skills

DESIGN & TECH End

Aspect	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1) Design Make Evaluate-DME								
			DME: Eco-friendly product design, make and evaluate e.g. Eco badge or bottle	Mechanisms: Moving joins and ferris wheel; Structure to educate others	Textiles: cross stitch and applique	DME: Electrical systems, static electricity to build a torch and Structures: Pavilions, frame structures	Textiles: Fastenings - evaluating different fastening to design a book sleeve and blanket stitch to make 3D toy .	Cooking: Affordable meals -- rationing, cooking with a budget -- seasonality. Textiles - cut and assemble fabric
			Structure: windmills or turbines	Cooking Healthy Lunch picnic	DME: Meal to demonstrate seasonality and climate	Cooking: Affordable meal - adapting a recipe within a budget .	Mechanisms to construct pop-up books and Structures: bridges	Technical: Electric circuit, bulbs, resistors, circuits constructing playsets. Mechanisms: Automata toys and cams
			Mechanisms: Levers and slides, wheels and axels	(Summer Term) Textiles: Pouches using running stitches to join	Structure: construction of larger structures with emphasis on evaluation	Mechanisms; pneumatic systems, syringes ad balloons, sling shots and kinetic energy	Cooking; adapting a recipe for ethical and health reasons	Structure: shelter bracing and cladding and net frame structures.

Designing	To know that materials feel and look different.	To know the properties of some materials and suggest some of the purposes they are used for. O	To identify the features of familiar products.	To identify the features of commercial products and generate ideas from them. O & MC	To clarify ideas using labelled sketches and models to communicate the details of any designs. O	To use a computer program to design a product. LT	To draw on and use various sources of information. LT
	To explore colours and textures and begin to describe products using simple expressions and words. O	To explore and differentiate between colours and begin to describe the texture of products using appropriate words. O	To describe the properties of the materials used. O	To plan effectively to ensure aims are achieved.	To think ahead about the order of the work, choosing appropriate tools, equipment, materials, components and techniques.	To recognise that any designs have to meet a range of needs. MC	To create and use own detailed plans, modifying where appropriate. LT
	To explore a variety of materials, experimenting with colour, design, texture, shape and form.	To explore and make decisions about how media and materials can be combined and changed.	To create ideas for products and to implement ideas, with support.	To represent design ideas using labelled diagrams or images. LT	To show an awareness of aesthetics.	To create and alter initial designs based on client feedback. O	To clarify my ideas through discussion, drawing and modelling. O & LT
		To develop their own ideas through selecting and using materials.	To represent design ideas in diagrams or images. MC		To be able to develop more than one design or adaptation of an initial design.	To consider aesthetics when creating the design.	To use understanding of familiar products to independently develop ideas. MC
					To write a set of instructions for someone else to follow. O	To communicate ideas with the consumer. O LT	
						To show awareness that resources may be limited (budget, time, availability).	

3) MAKE

a) Electricity

To create a product that has an electrical component.

To create a product that uses a number of electrical components.

b) Mechanisms

To build a 3D structure measuring and marking materials used. To cut materials using basic equipment.

To make a product that uses other mechanical components. To make a product that moves using a turning mechanism or a lever or a hinge. To build a 3D structure measuring and marking the materials used..

To select the appropriate techniques to make a product.

To create a product that uses both electrical and mechanical components. To create a product that can be controlled by a computer program. LT

To select the appropriate tools to make a product.

c) Textiles	To create products using a variety of materials, ingredients and simple techniques - with and without support	To create products using a variety of materials, ingredients and simple techniques - with and without support	To create a product using textiles including measuring and marking of materials. To join fabrics using adhesives.	To create a product using textiles. including measuring, marking and cutting materials. To use a variety of methods to join fabrics.	To select the appropriate textiles to make a product.	To select and use the appropriate method to join fabrics.		
d) Food			To cook or bake a simple food product with given ingredients.	To select appropriate ingredients for a food product and to measure accurately.	To know apply and understand the principles of a healthy and varied diet. To select the appropriate equipment and ingredients required.	To know apply and understand the principles of a healthy and varied diet. To understand that cooking alters the flavour and texture of food.	To prepare and cook a variety of techniques, predominantly savoury dishes using a range of cooking techniques	To understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.
			To correctly use equipment such as mixing bowls or knives, with support where necessary.	To correctly use a range of equipment.	To maintain good hygiene when preparing food.			
			To understand how to maintain good hygiene when preparing food.	To make food aesthetically pleasing to the consumer.	To measure ingredients accurately.			
e) Structures			To build a 3D structure, measuring and marking the materials used.	To build a structure, cutting materials and making holes using a variety of tools.	To build a structure, cutting materials and making holes accurately having selected the appropriate tools and materials.	To select and use the appropriate method to join materials.		

3) EVALUATE

a) Critiquing the work of a professional	To respond in different ways to what they saw/heard/felt/smelt. O	To respond in different ways to what they saw/heard/felt/smelt and begin to notice patterns. O	To identify and begin to describe similarities, differences or patterns in a final product.	To describe and start to give reasons for similarities, differences, patterns and focus features using shared criteria. O & LT	To generate criteria to assess a final product. To identify strengths, weakness giving reasons.	To evaluate the overall intended effect or purpose of a product and explain how this could be improved. MC & O.	To evaluate and suggest how this work is influenced by, or could be changed to suit, a range of contexts. O & LT	To evaluate and suggest how this work is influenced by, or could be changed to suit, a range of contexts. O & LT
	To express feelings about the final product made by a professional. O & LT & PSE	To say what they liked best or least about a final product or performance. O. LT	To say how a piece of work makes them feel and give simple reasons. O. PSE. LT.		To compare more than 1 product using clear criteria. O & LT.	To give reasons as to why particular features were used. O & LT		

b) Self and peer critique

To express feelings and or preferences about their own work or that of a peer. O.

To look closely at their final product with a teacher and say what they like and/or don't like about it.

To identify strengths and weakness/errors in their final product with some teacher support and give simple reasons.

To describe their final product or the process and identify strengths and weakness/errors.

To say whether it was different to expected.

To describe their final product in relation to the design brief.

To keep a tracker to identify successes and areas of weakness throughout the process.

To use information gathered throughout the process to improve and adapt work.

To prepare and use criteria to evaluate their own final product or that of a peer.

To use given criteria to evaluate the process or journey to arrive at final product.

To identify where changes were made during the process which led to improvements.

To prepare and use criteria to evaluate their own final product or that of a peer.

To use given criteria to evaluate the process or journey to arrive at final product.

c) Making improvements

To talk about what went well and what we learned when it did not.

To explore different ways to do something and identify differences.

To make simple suggestions to improve the quality of a final product based on evaluation with teacher support.

To compare improved work with initial work and/or design plan and express preference.

To ask where and how do I get help?

To test products and record findings. LT

Key Vocabulary KEY STAGE ONE

Design	Make	Evaluate	Sliders and Levers	Mechanical Systems	Free standing structures	Textiles: templates and joining techniques	Cooking and Nutrition
Appeal	Assembling	Evaluate	Bridge/guide	Axles			
Characteristics	Components	More stable	Curve	Chassis body cab	Base	Decorate	
Design criteria	Construction	Stiffer	Curve forwards backwards	Fixed free moving	Circle	Join	Ingredients
Develop	Cutting	Strong	Cutting	Mechanism*	Corner	Joining and finishing techniques	Arranging
Features	Equipment	Stronger	Input	Names of tools equipment and materials used	Cube	Mark out	Choosing
Function/functional	Finishing	Suitable	Joining/join	Stable (stability)	Cuboid	Pattern pieces	Core
Generate	Ingredients	Test	Joint	Stiffen	Curved	Template	Cutting
Mock-ups	Joining	Weak	Lever	Strengthen	Cylinder	Fabrics and	Diet
Model	Materials		Linear*	Vehicle axle holder	Edge	Names of existing products	Flesh
Product	Mechanism		Masking tape	Wheels	Fix		Healthy
Products	Mock up		Output		Fold		Investigating
Prototypes	Shaping		Paper fastener/split		Framework		Peeling
Purpose	Textiles		Pivot*		Join		Pip
Templates	Tool		Pull push up down straight		Metal		Popular
Users			Shaping		Plastic		Seed
			Simple flap		Point		Skin
			Simple slider		Rectangle		Slicing
			Slider		Side		Squeezing

Slot
Straight line

Square
Straight

Structure

Surface
Thicker
Thinner
Top
Tower
Triangle
Underneath
Wall
Wood

Tasting
Fruit And Vegetable
Names, Names Of
Equipment And
Utensils
Sensory Vocabulary
E.g. Soft, Juicy,
Crunchy, Sweet,
Sticky, Smooth,
Sharp, Crisp, Sour,
Hard

KEY VOCABULARY - KEY STAGE TWO

Design	Make	Evaluate	Sliders and Levers	Mechanical Systems	pulleys and gears	Frame Structures	Shell Structures	Electrical systems
Annotated sketches	Components	Aesthetic qualities	Control	Cams				
Appealing	Control	Authentic	Fixed pivot	Cogs	Axle	Frame structure	Accuracy	Battery
Characteristics	Decision	Evaluate	Input	Effort	Circuit	Join	Adhesives	Battery holder
Computer-aided design (CAD)	Materials	Reinforce	Lever	Fixed	Circuit diagram	Permanent	Assemble	Bulb
Criteria	Mechanism		Linear*	Force	Drive belt	Reinforce	Corrugating*	Bulb holder
Cross-sectional*	Monitor		Linkage	Gears	Driver*	Shape	Joining	Conductor
Design brief	Program		Loose pivot	Inclined plane (slope)	Electrical system	Stability	Lamination	Connection
Design criteria	Reinforce		Mechanism	Input-process-output	Follower*	Stiffen	Marking out	Control
Design specification			Oscillating*	Lever	Gear	Strengthen	Material	Crocodile clip
Exploded diagrams			Output	Load	Input	Temporary	Recycle	Fault
Finishing techniques			Process	Movable	Mechanical system	Triangulation*	Reduce	Flowchart
Fit for purpose			Reciprocating*	Pulleys	Motor		Reuse	Input device
Functional			Rotary*	Reinforce	Output		Ribbing*	Insulator
Innovative			Slider	Screw	Process		Scoring, shaping	Monitor
Label				Wedge	Pulley		Shell structure	Names of switches and components
Pattern pieces				Wheel and axle	Ratio		Stiff	Output device
Prototype*					Rotation		Strong	Parallel circuit
Purpose					Spindle		Tabs	Program

Relevant context

Research

Template

User

Textiles: 2D Shape to 3D Product/ Combining Different Fabric Shapes

Compartment

Fabric, names of fabrics e.g. cotton, muslin

Fastenings, names of fastenings e.g. zips, buttons
Hem

Names of equipment used e.g. pins, needles, thread, pinking shears, iron transfer paper

Reinforce

Right side

Seam allowance*

Seam

Stiffening

Stitch

Strength

Structure

Wadding

Weakness

Wrong side

Healthy and Varied Diet LKS2; Celebrating Culture and Seasonality UKS2

Appearance

Aroma

Consistency

Cook

Flavour

Greasy

Hot

Moist

Preference

Taste

Texture

Caught

Edible

Allergy

Beat

Carbohydrate

Combine

Crumble

Dairy

Fat

Fold

Gluten

Ingredients

Intolerance

Knead

Mix

Nutrients

Nutrition

Pour

Protein

Roll out

Rubbing in

Shape

Source

Switch

Transmit*

Three-dimensional (3-d) shape, net, cube, cuboid, prism, Vertex, edge, face, length, width, breadth, capacity,

Push-to-break switch

Push-to-make switch

Series circuit

Series circuit

System

Toggle switch

Cooking and Nutrition

Name of products, names of equipment, utensils, techniques and ingredients

Sprinkle

Stir

Utensils

Vitamins

Whisk