

Key Stage 1

Key stage 1 Intent:

Through a variety of creative and practical activities, learners are taught the knowledge, understanding and skills needed to engage in the process of designing and making. Learners work in a range of relevant contexts designing projects for a specific purpose.

When designing and making, learners are given opportunities to:

Design

- 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

- select from and use a range of tools and equipment to perform practical tasks [including, 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

- explore and evaluate a range of existing products.
- evaluate their ideas and products against design criteria.

Technical knowledge

- build structures, exploring how they can be made stronger, stiffer and more stable.
- explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

Cooking and Nutrition

As part of their work with food, learners are taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

When designing and making in Cooking and Nutrition, learners are given opportunities to:

- use the basic principles of a healthy and varied diet to prepare dishes.
- understand where food comes from.

Key Stage Opportunities:

Throughout Key Stage 1 learners will investigate, design, make and evaluate projects within the following areas:

KS1 Landgate School Long Term Planning 2019-2021



- Structures
- Mechanisms
- Textiles
- Food and nutrition

Learners will be exposed to a range of materials, contexts and skills, for example:

Materials exposure: range of construction items (lego, wooden bricks, plastic bricks etc), cardboard, card, paper, straws, recycled materials, fabric, tape, glue, string, fruit and vegetables

Contexts explored: home, school, gardens, playgrounds, story links, local community and wider environment

Practical skills developed: cutting, measuring, drawing, designing, making, joining, building, investigating

		Year A 2019-20	Year B 2020-2021
Focus 1	Key Focus:	Structures – Towers Example of challenge/product/purpose: <ul style="list-style-type: none"> - famous structures – Blackpool Tower - a tower for Rapunzel 	Structures- Bridges Example of challenge/product/purpose: <ul style="list-style-type: none"> - A bridge for Billy Goat Gruff.
	Vocabulary and Knowledge:	Tools, materials, tall, strong, stable, stiff, design, make, join, stick, construct, build	Tools, materials, tall, strong, stable, stiff, design, make, join, stick, types of bridges (eg beam bridge, cantilever bridge, arch bridge)
	Key Skills:	<u>Evaluation of existing products, designing, making, evaluating their finished product.</u> <ul style="list-style-type: none"> ▪ I can cut materials, measure, select resources, build/stack, stick/join resources to build a tower ▪ I can choose appropriate material to build a tower ▪ I can select and name tools that I will use ▪ I can evaluate what I have made (say what I like/don't like) ▪ I can explain the materials and why they are good for building a tower ▪ I can use symbols, pictures and/or words to convey what I want to design/make ▪ I can make my tower more stable 	<u>Evaluation of existing products, designing, making, evaluating their finished product.</u> <ul style="list-style-type: none"> ▪ I can choose materials appropriate for building a bridge ▪ I can cut materials, measure, select resources, build/stack, stick/join resources together to make a bridge ▪ I can select and name tools used ▪ I can evaluate what I have made ▪ I can describe the properties of materials and why I am using them for my bridge ▪ I can use symbols, pictures and/or words to convey what they want to design/make ▪ I can make my bridge stronger
	Key Opportunities:	<ul style="list-style-type: none"> ▪ Research existing products, investigating actual examples wherever possible 	<ul style="list-style-type: none"> ▪ Research existing products, investigating actual examples ▪ Explore/visit bridges in the local environment

	<ul style="list-style-type: none"> ▪ If available, explore products in the local environment e.g. local playground, otherwise small world structures, as a last resort photographs ▪ Explore a range of materials. Select materials from a limited range that will meet the design criteria ▪ Investigate how to make simple structures stand up ▪ Explore using reclaimed materials, simple art straw/card structures, construction toys, small world structures that will come apart into separate components ▪ Explore joining materials in different ways ▪ Practise making components (e.g. rolled paper legs/slide chute component) stiffer/stronger ▪ Join component parts – glue/masking tape/hot glue gun - with close supervision 	<ul style="list-style-type: none"> ▪ Investigate how to make simple structures stand up ▪ Explore using reclaimed/recycled materials, simple art straw/card structures, construction toys, small world structures that will come apart into separate components ▪ Explore joining materials in different ways ▪ Investigate how to make a structure more stable ▪ Practise making components (e.g. rolled paper legs/slide chute component) stiffer/stronger ▪ Join component parts – glue/masking tape/hot glue gun - with close supervision
Focus 2	<p>Key Focus:</p> <p><u>Structures – A free standing structure</u> Example of challenge/product/purpose: -Building an enclosure for an animal at the zoo -Building a model swing park or item from a swing park (eg small model swing, slide etc) - Building a chair for baby bear (link to Goldilocks)</p>	<p><u>Structures – Houses or Castles</u> Example of challenge/product/purpose: - link to a story - 3 little pigs - Hansel and Gretel gingerbread house</p>
	<p>Vocabulary and Knowledge:</p> <p>Tools, materials, tall, strong, stable, stiff, design, make, join, stick, cut, fold, weak, base, side, edge, corner, straight, curved</p>	<p>Tools, materials, tall, strong, stable, stiff, design, make, join, stick</p>
	<p>Key Skills:</p> <p><u>Evaluation of existing products, designing, making, evaluating their finished product.</u></p> <ul style="list-style-type: none"> ▪ I can select materials from a limited range that will meet the design criteria ▪ I can select and name the tools needed to work the materials. ▪ I can explain what I am making ▪ I can explore a range of materials ▪ I can use symbols, pictures and words to convey what I want to design/make 	<p><u>Evaluation of existing products, designing, making, evaluating their finished product.</u></p> <ul style="list-style-type: none"> ▪ I can select materials for a purpose ▪ I can select and name the tools I have used ▪ I can investigate a range of materials ▪ I can join materials to create my structure ▪ I can use symbols, pictures and words to convey what I want to design/make ▪ I can explain which materials I am using and why.

		<ul style="list-style-type: none"> I can evaluate what I have made (say what I like/don't like, what worked/didn't work) 	<ul style="list-style-type: none"> I can evaluate what I have made (say what I like/don't like, what worked/didn't work)
	Key Opportunities:	<ul style="list-style-type: none"> Explore existing products and investigate how they have been made Discover a variety of ways to make structures stronger Investigate different techniques for stiffening a variety of materials Test different methods of enabling structures to remain stable Join appropriately for different materials and situations e.g. glue, tape Explore ideas by rearranging and joining materials Select pictures to help develop ideas Mark out materials to be cut using a template Use a glue gun with close supervision 	<ul style="list-style-type: none"> Research existing products and investigate how they have are made Explore how to make structures stronger Investigate different ways of making building materials more rigid Ensure the stability of structures using a range of tests Bond materials together using suitable adhesives Experiment with different combinations of materials Develop initial ideas by using images of existing buildings Use templates to form cutting lines Use a glue gun with close supervision
Focus 3	Key Focus:	<p><u>Mechanisms – Moving picture</u> Example of challenge/product/purpose: - Link to a text eg a moving character (moving body parts or character on a lever moving across a scene) - Link to time of year eg Christmas - Wacky windmill – In Mr Mcgreggors garden, link to Mary Mary quite contrary</p>	<p><u>Mechanisms – Lever head cardboard puppets</u> Example of challenge/product/purpose: - Dragon – Chinese new year - Character from a story -Animal</p>
	Vocabulary and Knowledge:	Tool, material, cut, join. movement, pivot, lever, pull, push, mechanism, card, tape, forwards, backwards	Tool, material, cut, join. movement, pivot, lever, pull, push, mechanism, open, close,
	Key Skills:	<p><u>Evaluation of existing products, designing, making, evaluating their finished product.</u></p> <ul style="list-style-type: none"> I can join appropriately for different materials and situations e.g. glue, tape I can cut materials out safely I can fold and cut paper and card I can cut along lines, straight and curved 	<p><u>Evaluation of existing products, designing, making, evaluating their finished product.</u></p> <ul style="list-style-type: none"> I can select materials from a limited range I can name the tools that I use I can join appropriately for different materials and situations e.g. glue, tape I can cut materials out safely

		<ul style="list-style-type: none"> I can use a hole-punch I can insert paper fasteners for card I can experiment with levers and sliders to find different ways of making things move in a 2D plane I can select materials from a limited range that will meet the design criteria I can select and name the tools needed to work the materials. I can use simple finishing techniques (eg paint my finished item) 	<ul style="list-style-type: none"> I can fold and cut paper and card I can cut along lines, straight and curved I can experiment with levers and sliders to find different ways of making things I can use simple finishing techniques (eg paint my finished item)
	Key Opportunities:	<ul style="list-style-type: none"> Investigate existing moving pictures eg books with moving parts Research existing products, explore products in the environment e.g. Haigh hall windmill, Lytham windmill, garden windmill, as a last resort photographs. Experiment and explore a large variety of materials Explore cutting different materials Fold, tear and cut paper/card Use pictures and words to convey what they want to design/make Use drawings to record ideas as they are developed 	<ul style="list-style-type: none"> Experiment and explore a large variety of materials Explore cutting different materials Fold, tear and cut paper/card Use pictures and words to convey what they want to design/make Use drawings to record ideas as they are developed
Focus 4	Key Focus:	<p><u>Textiles – 2D fabric decoration</u> Example of challenge/product/purpose: - Decoration for Christmas, Easter, Mother's Day - Create/design a superhero cape from an old t-shirt</p>	<p><u>Textiles – hand or finger puppet</u> Example of challenge/product/purpose: - character from a story -character from a traditional tale - emotions puppet</p>
	Vocabulary and Knowledge:	Tools, fabric, material, pattern, design, join, needle, thread, decoration, circle, square, rectangle, triangle, decorate	Tools, fabric, material, pattern, design, join, needle, thread, puppet, make, hand, template, pattern
	Key Skills:	<p><u>Evaluation of existing products, designing, making, evaluating their finished product.</u></p> <ul style="list-style-type: none"> I can choose materials from a limited range I can cut out shapes which have been created by drawing round a template onto the fabric I can colour fabrics using a range of techniques e.g. fabric paints, printing, painting 	<p><u>Evaluation of existing products, designing, making, evaluating their finished product.</u></p> <ul style="list-style-type: none"> I can choose the materials and resources that I want to use I can cut out shapes which have been created by drawing round a template onto the fabric I can join fabrics by using different methods e.g. running stitch, glue, staples, over sewing, tape

		<ul style="list-style-type: none"> I can join fabrics by using different methods e.g. running stitch, glue, staples, over sewing, tape I can decorate fabrics with attached items e.g. buttons, beads, sequins, braids, ribbons I can evaluate what I have made (say what I like/don't like, what worked/didn't work) 	<ul style="list-style-type: none"> I can decorate fabrics with attached items e.g. buttons, beads, sequins, braids, ribbons I can evaluate what I have made (say what I like/don't like, what worked/didn't work)
	Key Opportunities:	<ul style="list-style-type: none"> Research existing products Experiment and investigate a large variety of materials Explore cutting different materials Experiment joining material/fabric in different ways eg stapling, gluing, safety pin, sewing Use pictures, symbols and words to convey what they want to design/make Use drawings to record ideas as they are developed Use a needle/weave to create a pattern or join fabric 	<ul style="list-style-type: none"> Research existing products Investigate a large variety of materials Explore cutting different materials Choose the materials and resources they want to use Use pictures, symbols and words to convey what they want to design/make Use drawings to record ideas as they are developed Use a needle/weave to create a pattern or join fabric Experiment joining material/fabric in different ways eg stapling, gluing, safety pin, sewing
Focus 5	Key Focus:	<p><u>Cooking and Nutrition – Fruit kebabs</u> Example of challenge/product/purpose: - link to a book eg Orange Bear Apple Bear or to Hungry Caterpillar</p>	<p><u>Cooking and Nutrition – fruit salad or fruit smoothie</u> Example of challenge/product/purpose: - for a character -link to a book eg Oliver's milkshake</p>
	Vocabulary and Knowledge:	Fruit/vegetable names, names of equipment and utensils, sensory vocabulary eg soft, juicy, crunchy, sweet, sticky, food groups, healthy, unhealthy, hygiene, safety, ingredients, seed, slice, peel	Hygiene, hand washing, safety, fruit/vegetable names, names of equipment and utensils, sensory vocabulary eg soft, juicy, crunchy, sweet, sticky etc, food groups, healthy, unhealthy
	Key Skills:	<p><u>Evaluation of existing products, designing, making, evaluating their finished product.</u></p> <ul style="list-style-type: none"> I can use pictures and words to convey what they want to design/make I can select and name the tools needed to prepare the ingredients I can use a variety of tools safely (eg knives, grater) I can name the tools I am using I can select the ingredients I want to use 	<p><u>Evaluation of existing products, designing, making, evaluating their finished product.</u></p> <ul style="list-style-type: none"> I can use pictures and words to convey what they want to design/make I can select and name the tools needed to prepare the ingredients I can use a variety of tools safely (eg knives, grater) I can name the tools I am using

		<ul style="list-style-type: none"> I can work safely and hygienically I can use apparatus to weigh different items 	<ul style="list-style-type: none"> I can select the ingredients I want to use I can work safely and hygienically I can use apparatus to weigh different items
	Key Opportunities:	<ul style="list-style-type: none"> Explore existing products and investigate how they have been made Explain where food comes from Possibly visit a shop to buy ingredients or visit a farm to see where food is grown Develop a food vocabulary using taste, smell, texture and feel Group familiar food products e.g. fruit and vegetables Cut, peel, grate, and chop a range of ingredients Understand the need for a variety of foods in a diet Measure and weigh food items, non-standard measures e.g. spoons, cups Explore ideas by rearranging pictures of ingredients Use drawings to record ideas as they are developed Select ingredients from a limited range that will meet the design criteria 	<ul style="list-style-type: none"> Explore existing products and investigate how they have been made Explain where food comes from Possibly visit a shop to buy ingredients or visit a farm to see where food is grown Develop a food vocabulary using taste, smell, texture and feel Group familiar food products e.g. fruit and vegetables Cut, peel, grate, and chop a range of ingredients Understand the need for a variety of foods in a diet Measure and weigh food items, non-standard measures e.g. spoons, cups Explore ideas by rearranging pictures of ingredients Use drawings to record ideas as they are developed Select ingredients from a limited range that will meet the design criteria
Focus 6	Key Focus:	<p><u>Cooking and Nutrition – Sandwich</u> Example of challenge/product/purpose: - Teddy bear picnic - A sandwich for Percy the Park Keeper - Link to Disgusting sandwich story</p>	<p><u>Cooking and Nutrition – Healthy salad</u> Example of challenge/product/purpose: - salad for an athlete or superhero - link to Oliver vegetables - rainbow salad</p>
	Vocabulary and Knowledge:	Vegetable names, meat, cheese, names of equipment and utensils, sensory vocabulary eg soft, juicy, crunchy, sweet, sticky etc, food groups, healthy, unhealthy	Vegetable names, names of equipment and utensils, sensory vocabulary eg soft, juicy, crunchy, sweet, sticky etc, food groups, healthy, unhealthy
	Key Skills:	<p><u>Evaluation of existing products, designing, making, evaluating their finished product.</u></p> <ul style="list-style-type: none"> I can use pictures and words to convey what they want to design/make 	<p><u>Evaluation of existing products, designing, making, evaluating their finished product.</u></p> <ul style="list-style-type: none"> I can use pictures and words to convey what they want to design/make

	<ul style="list-style-type: none"> ▪ I can select and name the tools needed to prepare the ingredients ▪ I can use a variety of tools safely (eg knives, grater) ▪ I can name the tools I am using ▪ I can select the ingredients I want to use ▪ I can work safely and hygienically ▪ I can use apparatus to weigh different items 	<ul style="list-style-type: none"> ▪ I can select and name the tools needed to prepare the ingredients ▪ I can use a variety of tools safely (eg knives, grater) ▪ I can name the tools I am using ▪ I can select the ingredients I want to use ▪ I can work safely and hygienically ▪ I can use apparatus to weigh different items
Key Opportunities:	<ul style="list-style-type: none"> ▪ Explore different sandwiches and different fillings ▪ Develop a food vocabulary using taste, smell, texture and feel ▪ Group familiar food products e.g. fruit and vegetables ▪ Explain where food comes from ▪ Cut, peel, grate, and chop a range of ingredients ▪ Understand the need for a variety of foods in a diet ▪ Measure and weigh food items, non-standard measures e.g. spoons, cups ▪ Explore ideas by rearranging pictures of ingredients ▪ Use drawings to record ideas as they are developed ▪ Select ingredients from a limited range that will meet the design criteria 	<ul style="list-style-type: none"> ▪ Explore existing salads and investigate how they have been made ▪ Develop a food vocabulary using taste, smell, texture and feel ▪ Group familiar food products e.g. fruit and vegetables ▪ Explain where food comes from ▪ Cut, peel, grate, and chop a range of ingredients ▪ Understand the need for a variety of foods in a diet ▪ Measure and weigh food items, non-standard measures e.g. spoons, cups ▪ Explore ideas by rearranging pictures of ingredients ▪ Use drawings to record ideas as they are developed ▪ Select ingredients from a limited range that will meet the design criteria