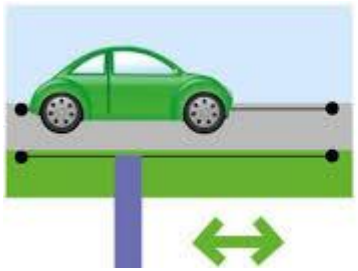
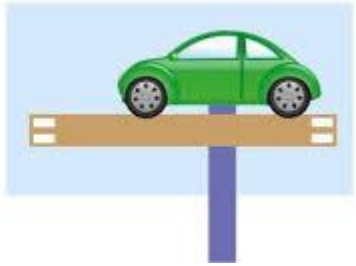
New Invention

INFANT SCHOOL

We can...we will...together





Design and Technology Syllabus

To empower our children to be the change-makers of the future.

#WecanWewillTogether

NII is a safe, secure and nurturing school where children develop positive relationships.

Our children are confident, articulate and resilient both in education and attitude to life.

They are compassionate, empathetic and supportive of others.

Our staff are motivated, tenacious and committed working with integrity to ensure the best outcomes for our children and families.

They strive for excellence in all that they do.

We are the focal point of our community where families feel supported, respected and are partners in their children's journey.

Everyone in our school community contributes and is both heard and valued.

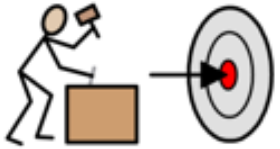
Our high aspirations, forward thinking, innovative approach inspires our children to be change-makers of the future.

inclusivity

Diversity
Equity
Respect
Acceptance

integrity

Moral
Principles
Honesty
Fairness



tenacity

Resilience
Hard working
Perseverance
Never give up

collaboration

Partnerships
Working together
Supportive
'Families'

ambition

Excellence
High expectations
Creative
Innovative
Risk taking

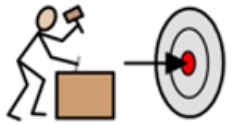
How our Mission, Vision and Values are reflected in DT


inclusivity

All children are included in design and technology lessons at their own level. Adapted tools are available when needed e.g. spring back scissors, pencil grips, larger grip paintbrushes etc. and children work on objectives that are appropriate for their developmental level. All children get opportunities to design, make and assess at their own level. For example, adults can scribe ideas, support is provided through scaffolding and adult support, assessments can be made using simple signs and symbols.


integrity

Through Design and Technology children are taught how to be honest about their skills, talents and difficulties through self and peer evaluation. Children are taught and encouraged to take turns and share out available resources with their peers. Lessons lend themselves to lots of opportunities to discuss wider moral issues such as recycling, upcycling and making a product to solve a problem.


tenacity

Resilience is encouraged through design and making stages as we encourage lots of trial and error through their independent exploration. We offer examples of finished pieces in different ways and show the children a variety of ways to get there. We help the children to select and use a variety of skills and tools. We scaffold questioning to support children in their perseverance, asking them what they could do next or what they could do instead. During the evaluation process, children are asked what they could do to make their product even better.


collaboration

In Design and Technology, we often organise children into groups and explore partner work throughout the design, make and assess stages. Children are encouraged to share ideas and talk through their designs in the design process, help each other when practising skills, learn from each other when making, and effectively evaluate each others' work. We spend lots of time evaluating each other's work and children are supported to give positive praise and constructive criticisms to their peers. Children will often be encouraged to share ideas, help a friend or magpie parts of their peers' projects that have gone well.


ambition

Design and technology lends itself well to ambition. We ensure children strive to complete a product to the best of their ability. Children are encouraged to be creative and draw upon examples to make their own design. We support children right from EYFS to think of their own ideas and designs, and ways in which they could achieve this. We celebrate achievements and children are encourage to draw upon their previously learnt skills to make a product that completes a design brief. We show children how Design and Technology is important to every day life and our life in the future.

Design Technology Curriculum Intent

Design and Technology is a valued aspect of our curriculum, exposing children to opportunities to develop their gross and fine motor skills, use equipment appropriately and let their imagination mature as they learn to design a wide range of products throughout their school career. At New Invention, we aim to inspire each child's imagination and allow them to create and make useful products. We aim to inspire the future designers and architects of the wider society.

Throughout the school, Design and Technology is at the heart of the curriculum. We ensure that children are exposed to a wide range of skills from the moment they begin their school life. Our Design and Technology curriculum encompasses a variety of skills that can be transferred into their everyday life. Our quality curriculum ensures that children leave our provision with a basic skills set embedded, to enable them to build upon these skills throughout their school career and into their adult life. We ensure that our curriculum aims to advance children's fine and gross motor skills through building and making products. These skills can then be transferred across the curriculum, improving handwriting, use of tools and children's physical development. Alongside this, we strive to improve children's knowledge and understanding of a variety of tools and equipment, how to handle them appropriately and how to use them for different purposes. Through our curriculum, we aim to guarantee our children develop logical thinking skills, allowing them to problem solve in other areas of the curriculum and in other aspects of their daily lives. We also aim to develop children's critical thinking, enabling them to select and use equipment appropriately for their products and develop their evaluative skills, giving constructive criticisms. We also aim to instil a healthy life style through developing knowledge and understanding about a healthy diet, whilst encouraging children to prepare a variety of healthy meals themselves.

Design & Technology

Implementation– (Areas of the Subject)

- Design
- Make
- Evaluate
- Food technology
- Textiles
- Structures
- Mechanisms

Design & Technology

Implementation

Design

Nursery- With support, children talk about what they want to build, begin to explain what they might use to produce it, say what tools and materials they will use.

Reception- talk about a pre-existing product, say what they like/dislike about a pre-existing product, begin to choose what they are going to make, say how they are going to make it and what they might use, begin to make drawings of what they want to produce.

Year 1- research pre-existing products, use their research to design a product against a design specification, choose parts from products that they like, choose their own mechanisms or methods to create their finished product and provide reasons for this, labelled drawings

Year 2- research pre-existing products, use their research to design a product against a design specification, choose parts from products that they like, investigate fixings, fixtures, mechanisms and methods, choose their own mechanisms or methods to create their finished product and provide reasons for this, begin to use measurements during design, labelled drawings including materials

Design & Technology

Implementation

Make

Nursery- with support, make their product using the skills that have been practising, talk about what they are doing, making their own products during choosing time e.g. lego buildings, junk modelling, construction materials, playdough

Reception- use their design to make their product, keep looking back at their design to check what they are making, answering questions such as “what are you doing?” “what will you do next?” “what will you use? why?”, setting out to make their own products during choosing time e.g. lego buildings, junk modelling, construction materials, playdough

Year 1- using subject specific vocabulary to explain what they are doing, “what are you doing?” “what will you do next?” “what will you use? why?”, perform the methods/skills correctly and safely

Year 2- “what are you doing?” “what will you do next?” “what will you use? why?”, using subject specific vocabulary to explain what they are doing, adapt their design process when problems occur, perform the methods/skills correctly and safely

Design & Technology

Implementation

Evaluate

Nursery- talk about what they have made/done/used using sentence stems, talk about what it is, does it look like what it is supposed to look like? e.g. house.

Reception- talk about what they have made/done/used with growing independence, what did you do? Does it stay together? What do you like about it? What would you do differently next time?

Year 1- evaluate against the design specification and audience for the product, does it work? begin to record verbally and in written form what they like about their product, what didn't go well and what they could improve next time using a rating system

Year 2- evaluate against the design specification and audience for the product, does it work? record verbally and in written form what they like about their product, what didn't go well and what they could improve next time using a rating system

Design & Technology

Implementation

Food Technology

Nursery- practise skills of holding a knife and fork, eating with a spoon, spreading butter with a knife effectively, making bread and butter following a recipe in an adult led activity

Reception- lots of work around healthy/unhealthy foods, healthy eating plate and healthy choices, introducing and practising skills such holding a knife and fork, using a spoon accurately through dinner times and special snacks, using playdough to practise chopping, following a recipe to make pancakes, spreading butter

Year 1- follow a recipe to produce bread, chop and cutting skills to cut cheese and salad vegetables, grating for cheese

Year 2- taste test an existing product/ingredients to choose the ingredients for their own product, practise previously learnt skills such as peeling, chopping, grating, recap foo dhygeine procedures and safe use of equipment, follow a recipe, evaluate taste

Design & Technology

Implementation

Textiles

Nursery- collaging, threading skills using beads, sticks, laces, buttons

Reception- threading webs using needles and wool,

Year 1- dye fabric and print a design onto fabric

Year 2- practise blanket stitch and running stitch and choose the stitch they would like for their hanging mobile

Design & Technology

Implementation

Structures

Nursery- exploration of skills- junk modelling, early introduction to tools, exploring different media, building and balancing skills, snipping with scisissors, stacking, fixing with glue and tape, choose which materials they would like to use i.e. junk modelling, lego

Reception- investigate joining different materials together (wood, plastic, metal), practise hammering a nail into balsa wood, adult let to create an insect hotel

Year 1- recapping and embedding joining and building skills using a avreitey of media

Year 2- Building simple bridges using blocks and paper/card and testing materials to hold a small weight such a coin/small toy

Design & Technology

Implementation

Mechanisms

Nursery- practise attaching skills to fix together a lollipop stick and paper to make a linkage/lever for a moving puppet scene

Reception- investigate joining different materials together, split pin designs

Year 1- explore different ways of making a slider, create a sliding picture, explore different types of handles and appropriate ways to attch handles

Year 2- Look in more depth at axles—explore two different ways to make an axle—fixed and free (using dowel and straws), Recap ways of joining materials and consider which methods of joining would be most effective when making seats, aerials etc.

DT Curriculum Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery	Basic skills- explorations; introduction to tools, joining, threading, eating with a spoon, spreading butter		Structures- making a house Joining skills		Mechanisms (fixings)- puppet farm scene Food Technology- making bread/butter, strawberry snacks	
Reception	Reminder of basic skills	Investigation, evaluation and design practise	Villains and Heroes – fairy tales Textiles		Structures- insect hotel	Food technology- ladybird sandwich, making insect snacks
Year 1	Mechanisms- moving picture (levers)		Mechanisms- shields (handles)	Food technology- making bread		Textiles- picnic blanket
Year 2	Structures- bridges		Mechanisms- wheels and axels for lunar rover		Food technology- vegetable biryani	Textiles- hanging animal mobile

Lesson/Activity Sequencing

Overview Nursery

Me and My celebrations

Autumn

Getting to know you

Building and balancing- exploring building blocks. How do they fit together? Can they fix together? Talk about what 'fix' means and how this can be done. Do they balance?

Junk modelling– exploring and building with boxes. Talk about the design process briefly i.e. what will you make? How can you fix it together? Look at and model the tools that will be used.

Early introduction to tools (exploring)- pencil, chalk, crayons, paint, paintbrushes, playdough, rolling pin, playdough cutter, glue sticks, threading sticks—**continuous provision all year revisiting modelling of safe use throughout.**

Exploring different media– paper, blocks, playdough, duplo. Talk about the names of different media and how they might be used. Modelling appropriate use and allow the children to explore.

Eating with a spoon– variety of opportunities to eat yoghurts, cereals, beans and soup etc.

Autumn Celebrations

Building and balancing- exploring building blocks. How do they fit together? Can they fix together? Talk about what 'fix' means and how this can be done. Do they balance? Can you copy a pattern/shape? What blocks would be best for…?

Making simple enclosures with support- talk about what enclosures are/their purpose. Look at and talk about examples in real life. Look at a range of materials and media and discuss which ones would be better suited and why. Practise skills of cutting and sticking, modelling appropriate use of tools.

Early introduction to tools (using appropriately the Autumn 1 tools)- snipping with scissors, rolling out and cutting playdough shapes, glue spreaders- modelling safe and appropriate use.

Snipping into toilet rolls to make firework printing- talking about holding toilet roll in one hand, making snips with dominant hand, turning the roll as you snip.

Elf shoe (textiles)

Make- threading skills—bead sticks, laces and beads, laces and buttons, threading templates- Look at a variety of shoes and discuss the types of fastenings (laces, Velcro, zips, buttons). Practise fastening the different types of shoes. Model threading skills using one hand to keep it steady and the weaving motion (down and back up).

Food technology

Chopping strawberries, bananas and oranges- peeling fruit

Making faces using fruit slices

People Who Help Us

Spring

Making a house (structures)

Pretending to be builders in role play

Investigate– looking at pictures of houses talk about what they can see e.g. windows, door, roof, shapes

Skills — Copying houses from picture prompts including using shapes and building blocks, collaging buildings using different shapes, attaching in different ways glue sticks, sticky tape, masking tape and glue spreader, remind of stacking, creating enclosure and building

Design- Looking at and selecting materials to help them make their building. Children to talk about what building they are going to make, how many windows/doors, what are they going to use to attach it. Based on exploration, talk about what materials/tools they would use to build it, modelling explanations.

Make– making a house using their preferred materials e.g. junk modelling, lego– why have you used it? What have you done? Modelling for correct use.

Evaluate- Talk about what they have done/used– materials, what is it? Does it look like a house? Does it have all the features of a house?

Joining– sticky tape, masking tape, glue stick, spreaders

Continuous provision– put out pictures of hospital, vets, police station with building materials previously used. Talk about the similarities/differences of the buildings each time a new one is introduced.

Down on the Farm

Summer 1 / Summer 2

Puppet farm scene (fixings-mechanisms)

Investigate– watch puppet shows (the lonely goat heard- sound of music). Look at puppet scenes together. Discuss what they can see. What do they like/dislike?

Design– practise cutting along a line, practise attaching lollipop sticks to paper with glue stick, glue spread and sticky tape and decide which is best

Make– choose a farm scene for background, draw a picture of the animal that lives there, cut around and stick to lolly pop stick. Given a strip of paper for the strap. Children to fix it to the back of the background to pop their animal in.

Drip feed-

Early introduction to tools with appropriate modelling - pencil, chalk, pens, crayons, paint, paintbrushes, playdough, rolling pin, playdough cutter, stapler, hole punch

Talk about what they have done/used and why

Talk about what they are going to build and what they might use

Choosing the correct materials and explaining choices

Food Technology

Making bread, making butter- talk about how farms help us to get bread and butter. Where does it come from? Can they think when they have had bread and butter at home? Appropriate modelling and support to follow a recipe as a group. Ensure each child gets a try of each step; mixing, kneading, rolling, shaping, shaking, spreading.

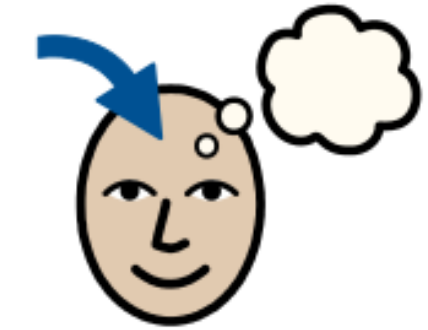
Overview Reception						
	Nursery Rhyme Land		Traditional Tales		At the bottom of the garden	
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Reception	Reminder of the key skills from Nursery– model, practise a skill and then apply independently. **Skills**– glue, staples, tape, glue spreaders, blue tac, pipe cleaners, fasteners, scissors, hole punches. Talk about the names of different media and how they might be used. Modelling appropriate use and allow the children to explore. Before continuous provision session, talk about what they plan to make and what they might use e.g. cardboard box, lego, paper, bottle etc. Using spoons, knives and forks– dinner time and plenty of opportunities for special snacks that require knives and forks e.g. beans, toast, bananas, carrots (cooked), cereal. Appropriate modelling.	A range of activities in continuous provision, adult led and outdoor jobs to focus to investigate, evaluate and design Before each activity, discuss as a class, look at real life examples of each and their purpose. Talk about what they are going to do, what materials/media/tools they might use and how they will know if it is successful. After each activity discuss what they have done to make it, did it work and would they do anything different next time. Humpty Dumpty– building walls, protect the egg competition (adult led) Jack & Jill– bucket experiment (adult led) Incy Wincy– threading webs on paper plates (adult led), pipes and drains London Bridge– making bridges, lego, table to table, ramps outside, testing bridges (adult led)	**Red Riding Hood's Cape (textiles)** Investigate– look at existing coats, jackets and hoods. Talk about the use of a hood, what materials are they made out of, the colours and designs. Test materials– Talk through the process of making an hood that is suitable to go onto a cape to hide LRRH from the wolf. What will the material need to be like? What will it need to feel like? Investigate the suitability of felt, paper, cotton, plastic, satin and describe them. Texture hunt. Look at a needle and explain that this is how the fabric will be joined together. Will the plastic needle go through the material? Will it break easily? Design–lots of partner talk and group discussions about what they like/dislike and children to design a pattern for their hood. Children who struggle on the design element would have a given one for them to change the colour on. Cut out their favourite emblem. Make– children to draw their designs onto the hood of the material using fabric pens. Recap to elves and the shoemaker sewing. Model and practise joining together two pieces of pre-holed fabric using running stitch with a plastic needle. Children to sew their hood onto the body using running stitch (recap to incy wincy). Cape parade – children to showcase their products to a different class **Food Technology** Healthy lives– talk about the meaning of being healthy e.g. hygiene, exercise, diet. Look at and make healthy eating plate, sort healthy and unhealthy foods Skills– chop, spread, peel, grate– model appropriate chopping one hand to hold the food and one hand to chop. Practise with playdough and then onto real food Make– healthy wrap– discuss what a healthy wrap is? When might you have them? What parts do they have? Have you had one before? chop veg, grate cheese, spread butter		**Insect hotel (structures)** Investigate– recap work on houses in nursery- what does your house have? Why? Look at existing insect houses and talk about reasons for used materials, likes and dislikes, key features, labelling the parts Design– looking at materials for outside, exploring how to manipulate the material to make the shape, joining using cellotape and glue and staples, which is successful, exploring likes and dislikes, design their own insect hotel based on what they know about insects Skills practise– rolling paper/card, hole punching, scrunching, joining, tying Make– using the skills we have learnt, children to make their own insect hotel CC link- children to make a bug hotel guest book to tick off any minibeasts they find in there Evaluate- What did you do? Does it stay together? What do you like about it? What would you do differently next time? **Food Technology** Making insect snacks– celery base, cream cheese, cucumber snail shell, cherry tomato head, chive tentacles- model the spreading and chopping skills previously learnt. Can they do this independently? Ladybird sandwich– independently spread butter onto bread, piece of lettuce, half a slice of tomato, olive spots– half it with their nursery buddy Spreading practise independently– honey onto crumpets for special snacks	

Overview Year 1						
	Toys and Me		Castles		Over Land and Sea	
	Autumn 1	Aut 2	Spring 1	Spring 2	Sum 1	Summer 2
Year 1	<u>Toys (mechanisms)</u> Explore– sea creature book to look at mechanisms. Talk to the children about what a mechanism is and how it works. Look at sliders, wheels and levers and talk about the effect of each mechanism on the pictures. Exploring making a slider by drawing two dots and a line with a ruler, model playdough behind the first dot and stab a pencil through to make a hole. Cut along the lines and remind children to stop at the dots. Make the slider using a lollypop stick and a picture (given background and picture). Design- Plan background to ensure it fills the whole space and character for picture for We're Going on a Bear Hunt. Plan materials to be used for the mechanism. Make- Create background. Create sliding character and cut background to create mechanism. Make their slider and evaluate Evaluate- does the mechanism move smoothly without getting stuck? Does the character move? What do you like? What would you do differently? Recap the book and introduce levers Explore- practise making lever with given resources, recap stabbing the hole between the lever and the background and putting a split pin through. Design- design background for fireworks display and plan lever for a firework e.g. rocket Make- make their designed background and rocket, use strips of card to make the lever and fix together with split pins. Evaluate- does the mechanism move smoothly without getting stuck? Does the character move? What do you like? What would you do differently?	Art	<u>Shields (fixings)</u> Investigate- on the trip to Stafford Castle, look at real shields. What do they look like? What features do they have? What are they made of? When back at school, label 3 different types of shields (round, buckler, kite). What did they need to do? What properties do they need? Use prior knowledge from Reception and materials work to discuss which materials are more suitable. Explore the parts of shields and the purpose– what materials would be best for this and why? -what does a shield look like? - think about shape, handle, coat of arms (link back to Rec emblems), additional feature ie dome on the front to sculpt -Look at 3 types of handles; cross, central and loop handle. Explore how to attach handles. Children to pick their handle ie cross over handle, 3 straight handles, 1 thick handle. Think about how to attach their preferred handle. Look at 3 types of fixings—flange, tabs and l-brace Design- using all the explorative research, pick their favoured shape, handle and fixing with their own coat of arms. Make- make the shell and attach the handle of the shield using their preferred fixing. Decorate and evaluate against design spec	<u>Prepare and make a banquet</u> Making bread (link to history medieval bread making) following a recipe and then write up their recipe for nursery children Chop and cut cheese, bread and other vegetables to make a salad- recap appropriate and safe use of sharper knife than EYFS Grating cheese		<u>Natural world (textiles) picnic blanket</u> Introduce the stimulus about what a blanket is, where might they be used Investigate- Explore different fabrics and patterns considering colour, textures, which fabrics, patterning—evaluate which are liked and why, which are most effective combinations of colour and pattern and why etc. Pencil play to recreate patterns and pictures and thickness of lines seen on blankets- which are easier to create/harder and why? - Link to art Learn that we can make a piece of fabric a different colour by dying it. Explore testing out different colours and methods for dying fabrics Print flowers onto strips of shirt linking to science– a recap from reception Design- Select the pattern, colour and method of dying fabric to create a piece of a picnic blanket.—Design a piece of fabric for a picnic blanket to meet a design specification Explore how we can use a printing block to print the same pattern/picture repeatedly and how this can help our patterned design look uniform—discuss carving and carve the chosen pattern into a foam sheet to create a printing block. Dye fabric and print design onto fabric using chosen method for colour, dye and paint. Evaluate – does it meet design specification? Look pleasing to the eye, feel nice to sit on etc. - Recap and practise sewing using running stitch and blanket stitch to sew pieces together to make a class blanket for a seaside picnic day.

Overview Year 2						
	Pirates		Pioneers		Beyond Britain	
	Aut 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 2	Art	Intro to bridges—why do we have bridges, explore types of bridges—famous bridges, bridges by our focus engineers Investigate over a few lessons- Look at similarities and differences of bridges—size, shape, materials, function. Explore how are bridges made, materials, fixings (recap flange, tabs and l-brace), properties of a good bridge. Building simple bridges using blocks and paper/card and testing materials to hold a small weight such a coin/small toy - Evaluate what did you notice/worked well/needs to change etc. Explore deeper and extend to using different shapes and folds to add strength to the bridge—rolls, triangles, arches etc.—Evaluate what did you notice/worked well/needs to change etc. Design- design a final bridge to build for the troll based on explorative research so far Make- Build a bridge for the troll—can the bridge hold his weight? Evaluate- did it work? What was successful? What needs to change next time?	Art	Investigate- Look into The Wright Brothers and the first aeroplanes. How did they look? What parts did they have? Research the early aeroplanes—learn about the key parts and functions of these. Label the key parts of an aeroplane using technical vocabulary and commenting on the functions of these and why they were needed. Look in more depth at axles—explore two different ways to make an axle—fixed and free (using dowel and straws) Which do they prefer and why? Skills- Making seats, propellers, wings, tail. Recap ways of joining materials and consider which methods of joining would be most effective when making each part. Design- Look at a range of different materials and consider work completed exploring axles to design an aeroplane design to meet a specification. Make- use prior knowledge and skills practise to create their aeroplane Evaluate- finished aeroplane to consider what was successful/needs to change and whether it met the design specification	Food technology– vegetable biryani 1– food taste a biryani (special snack) cooked ingredients to taste and select 2– plan ingredients by tasting Peel– sweet or normal potato Chop– onion/green beans/cherry toms/courgette Grate– ginger/carrot Lentils 3– recap food hygiene & safe use of equipment Follow the recipe to make Evaluate taste Cc link– writing up recipe	WWF wildlife animal pouch (textiles) Investigate- explore WWF endangered animals, looking at Indian animals and cultural textile patterns. Discuss making animal theme pouch for their clay animal- this will be the animal print. Look at their chosen animal, and create a collage using photos, patterns and textures Indian fabrics- colours, prints, embroidery, handling different fabrics cotton, felt and hessian Skills- recap printing from year 1 by copying a pattern from the Indian fabrics and printing this onto a small square of cotton Recap from year 1 and reception their running stitch to sew 2 small pieces of cotton together- running stitch along one side and blanket stitch along the other Investigate closures/fastenings- press studs, Velcro dots, buttons and elastic loop, ribbon tie Design- design their small fabric pouch including animal motifs and/or Indian patterns. Choose their preferred stitch and fastening Make- use their printing methods or fabric pens to create their design onto 2 squares of fabric, choose their favoured stitch to sew 3 sides together, attach the flap and their chosen fastening Evaluate- share and explain their choices reflecting on their animal, invite parents for a WWF showcase where children will share their work from this topic, their pouches, a presentation and a donations station. Use their pouch to take home their clay animal from art.

Breakdown of Knowledge

This document shows how substantive, declarative (knows that) and procedural (knows how to) knowledge develops in Design & Technology across the school.



knowledge

can use

Knowledge Organisers

New Invention Infant School Knowledge Organiser

[Design and Technology]

Year group:	Strand:
Nursery	Food and Nutrition

My prior knowledge What I should already know before starting this topic:
• Name some simple every day foods • Use a spoon to feed themselves

Final Product/Assessment
Autumn– Children should be able to feed themselves competently with a spoon. - Children should be able to hold a knife to spread butter onto bread. **Spring**– Children should be able to use a fork with their least dominant hand to stab foods to keep them still. **Summer**– Children should be able to say what they like and dislike about a product. They should be able to follow simple instructions in a group to produce a food product. Children will be able to choose what they want to make and carry it out with support.

Assess
Teacher assess: Does the child hold the knife using the correct grip? Can the child spread butter effectively? Can the child scoop food using a spoon without spilling? Can the child hold a fork with the correct grip and stab food accurately? Can the child chop strawberries using a claw grip and dominant hand to chop? **Child voice:** What would we use to chop up food? What would be the best thing to use to eat soup with? Which bread did you like the best? Why?

What will I know by the end of this unit? [e.g. key facts, concepts]
Eat appropriate foods with a spoon
Spread butter with a knife
Chop strawberries using correct grip of knife
Follow instructions to make bread
Follow instructions to make butter
Names of every day food

Investigate and Design

Summer Term—making bread

Children will be tasting bread and saying what they like/dislike about them




Strawberry sale-

Children will be looking at strawberry based treats and deciding what they want to make as a class




Make

Autumn Term-

Scoop food up with a spoon using dominant hand

Spread soft butter with a knife using dominant hand— index finger should point down the top of the blade (digital pronate grip).


Spring Term-

Using a fork to stab foods using non- dominant hand in order to prepare for knife and fork use.


Summer Term-

Chopping strawberries using holding hand in claw position and dominant hand as the moving hand. Dominant hand to be moving the knife with child's index finger pointing down the top of the knife blade.


Claw cut

Health and Safety

Remove any jewellery and tie back long hair.

Check the dates on food, and check for allergies of those eating.

Wear an apron and roll up your sleeves.

Washing your hands should be done before, during and after preparing

Make sure that you clean up properly after yourself.

Engagement motivation and thinking (CoL) and PSED

Shows high levels of engagement during practical and fact based learning. Children will be willing to try new foods, outside of their comfort zone. When faced with challenges, children will show resilience to overcome these.

Cross curricular links

PSED- fine motor and gross motor skills throughout the year to enable children to use tools effectively

Communication and Language- children must listen carefully in lessons and often expected to follow instructions. Children will be encouraged to understand and use subject specific vocabulary throughout the year. Children will be required to talk about their likes and dislikes of existing products and explain what they are doing whilst making their own.

Mathematics- adults will be explicitly modelling mathematic language when measuring amounts during making bread

Useful Links

Using a Fork and Knife Information Sheet | NHS GGC

Homemade Bread - Baking recipe for Kids - YouTube

Cooking in the Kitchen - Kids Song - Pretend Play Cooking with Fun Food for Kids - YouTube

How to educate children about food in the early years (earlyyearscareers.com)

Key vocabulary

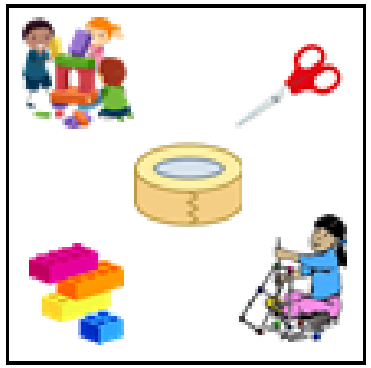
Simple	
Spoon	A utensil used to scoop foods
Knife	A utensil used to stab foods
Fork	A utensil used to cut foods
Goldilocks	
Chop	To cut something into pieces using a knife
Scoop	To move something out of a container using a spoon
Spread	To use a knife to put butter over bread
Stab	To put the fork in food to keep it still when cutting
Cut	
WOW!	
Claw position	
Holding hand	
Moving hand	

Final Product/Assessment
Children to have made a moving picture with a background and a moving farm animal. We are learning to: Explore how things move Use a slider mechanism to make a picture move Make a character on a stick go from one side to another Use simple tools and materials safely Talk about how we made it

Assess:
Teacher assess: Can the child: Hold scissors, pencils, cutters and glue spreaders correctly? Fix or stick pieces together using glue or fixings? Plan what they will make? Talk about what they are using? Pick materials that will work best? Child voice: I am making a... I used... because... I joined it by... Next time, I might...

New Invention Infant School Knowledge Organiser

[Design and Technology]



Year group: Nursery	Strand: Structures

My prior knowledge What I should already know before starting this topic:
•

What will know by the end of the unit? (eg key facts, concepts)
Explore different materials
Use tools safely
Talk about what we've made
Talk about our ideas
Sliding
Joining
Cutting
Designing

Investigate and Design

Adult led discussions based around specific questions- what will you make? How can you fix it together? Look at and model the tools that will be used.

Children exploring different materials and equipment.

Engagement motivation and thinking (GILs) and PSEDs

Shows high levels of engagement during practical and fact based learning. Children will be willing to try new foods, outside of their comfort zone. When faced with challenges, children will show resilience to overcome.

Key vocabulary

Slider	A part that helps something move.
Mechanism	A way something moves or works
Lollipop stick	A stick used to hold the character
Slot	A cut in the paper where something moves through
Move	Go from one place to another
Push	To move something with your hand

Make a puppet farm scene (Science- mechanisms)

Investigate- watch puppet shows (the lonely goat herd - sound of music). Look at puppet scenes together. Discuss what they can see. What do they like/dislike?

Design - practise cutting along a line, practise attaching lollipop sticks to paper with glue stick, glue spread and sticky tape and decide which is best

Make - choose a farm scene for background, draw a picture of the animal that lives there, cut around and stick to lolly pop stick. Given a strip of paper for the strap. Children to fix it to the back of the background to pop their animal in

Steps to make a moving picture:

1. Draw or colour a background
2. Cut a straight slot across the card
3. Attach a strap or loop to the lollipop stick
4. Slide the stick through the slot
5. Glue on the farm animal

Cross curricular links

PSED- fine motor and gross motor skills throughout the year to enable children to use tools effectively

Communication and Language- children must listen carefully in lessons and often expected to follow instructions. Children will be encouraged to understand and use subject specific vocabulary throughout the year. Children will be required to talk about their likes and dislikes of existing products and explain what they are doing whilst making their own.

UTW- Exploring how things work

EAD- Creating a picture that moves

Talking about our work

I have used this because...
I joined this with tape.
I will draw a...
The slot makes the picture move.

Tools

Scissors
Glue sticks
Masking tape
Hands and fingers
Lollipop sticks

What might we use?

Item	Use
Card or paper	The background picture
Lollipop stick	To hold the character
Character cut-out	To decorate and move
Paper or card strap	Slider that lets the stick move
Glue or tape	To join parts together
Scissors (adult-supervised)	To cut the slider slot

Health and Safety

Remove any jewellery and tie back long hair.

Make sure that you tidy up properly after yourself

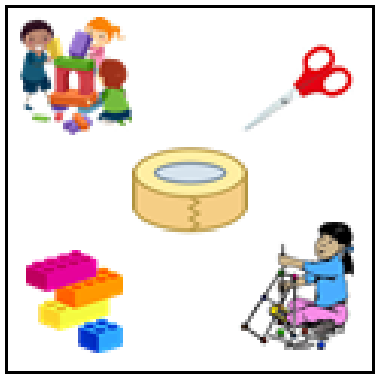
Make sure that you are handling tools safely and correctly

Final Product/Assessment
Make- making a house using their preferred materials e.g. junk modelling, lego- why have you used it? What have you done? Modelling for correct use. Evaluate- Talk about what they have done/used- materials, what is it? Does it look like a house? Does it have all the features of a house?

Assess
Teacher assess: Can the child: hold scissors, pencils, cutters and glue spreaders correctly? Build with blocks? Fix or stick pieces together using glue or fixings? Plan what they will make? Talk about what they are using? Pick materials that will work best for their house? Make something strong and steady? **Child voice:** I am making a... I used... because... I joined it by... Next time, I might...

New Invention Infant School Knowledge Organiser

[Design and Technology]



Year group:	Strand:
Nursery	Structures

My prior knowledge What I should already know before starting this topic:
•

What will I know by the end of this unit? (e.g. key facts, concepts)
Explore different materials
Use tools safely
Build a house using different materials
Talk about what we've made
Join pieces together
Explore shapes and structures
Talk about our ideas

Investigate and Design

Adult led discussions based around specific questions- what will you make? How can you fix it together? Look at and model the tools that will be used.

Children exploring different materials and equipment.

Make a house (structures)

Pretending to be builders in role play

Investigate- looking at pictures of houses talk about what they can see e.g. windows, door, roof, shapes

Skills – Copying houses from picture prompts including using shapes and building blocks, collaging buildings using different shapes, attaching in different ways glue sticks, sticky tape, masking tape and glue spreader, remind of stacking, creating enclosure and building

Design- Looking at and selecting materials to help them make their building. Children to talk about what building they are going to make, how many windows/doors, what are they going to use to attach it. Based on explanation, talk about what materials/tools they would use to build it, modelling explanations.

Make- making a house using their preferred materials e.g. junk modelling, lego- why have you used it? What have you done? Modelling for correct use.

Evaluate- Talk about what they have done/used- materials, what is it? Does it look like a house? Does it have all the features of a house?

Joining- sticky tape, masking tape, glue stick, spreaders

Health and Safety

Remove any jewellery and tie back long hair.

Make sure that you tidy up properly after yourself.

Make sure that you are handling tools safely and correctly.

Engagement motivation and thinking (CoL) and PSED

Shows high levels of engagement during practical and fact based learning. Children will be willing to try new foods, outside of their comfort zone. When faced with challenges, children will show resilience to overcome.

Cross curricular links

PSED- fine motor and gross motor skills throughout the year to enable children to use tools effectively

Communication and Language- children must listen carefully in lessons and often expected to follow instructions. Children will be encouraged to understand and use subject specific vocabulary throughout the year. Children will be required to talk about their likes and dislikes of existing products and explain what they are doing whilst making their own.

Mathematics- adults will be explicitly modelling mathematic language when measuring amounts during making bread.

What might we use?

Junk Modelling	Construction Toys
Boxes (small/large)	Lego or Duplo
Tubes (toilet/kitchen roll)	Wooden blocks
Lids and bottle tops	Stickle Bricks or Mega Blocks
Tape and glue	Building planks
Cardboard and paper	Plastic bricks

Key vocabulary

Roof	The top of the house
Wall	The sides of the house
Door	The part we go in and out of
Window	A hole to look through
Build	To make something
Join	To stick or fix parts together

Talking about our work

My house has a roof and windows.

I joined this with tape.

I used lego to build the walls.

It fell down, so I made it stronger.

Tools

Scissors

Glue sticks

Masking tape

Hands and fingers

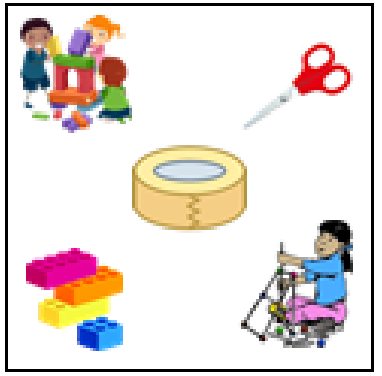
Lego connectors or clips

Final Product/Assessment
• Junk modelling (robots, houses, cars) • Creating collages with fabric and card • Rolling paper to make towers • Building bridges with blocks

Assess
Teacher assess: Can the child: hold scissors, pencils, cutters and glue spreaders correctly? Build with blocks? Roll, stretch, bend and pinch materials? Plan what they will make? Talk about what they are using? **Child voice:** I am making a.. I used.. because.. I joined it by.. Next time, I might..

New Invention Infant School Knowledge Organiser

[Design and Technology]



Year group:	Strand:
Nursery	Basic Skills

My prior knowledge What I should already know before starting this topic:
• The names of every day equipment e.g. glue, pencil, chalk, scissors, playdough cutters, crayons, lego, duplo • How to build and balance blocks

What will I know by the end of this unit? (e.g. key facts, concepts)
Explore different materials
Use tools safely
Try out joining, cutting and building
Talk about what we've made
Joining, building
Rolling and folding
How to choose materials
Using tools safely

Investigate and Design

Adult led discussions based around specific questions- what will you make? How can you fix it together? Look at and model the tools that will be used.

Children exploring different materials and equipment.

Engagement motivation and thinking (CoL) and PSED

Shows high levels of engagement during practical and fact based learning. Children will be willing to try new foods, outside of their comfort zone. When faced with challenges, children will show resilience to overcome.

Make

Autumn Term-

Building and balancing- exploring building blocks. How do they fit together? Can they fix together? Talk about what 'fix' means and how this can be done. Do they balance?

Junk modelling- exploring and building with boxes. Talk about the design process briefly i.e. what will you make? How can you fix it together? Look at and model the tools that will be used.

Early introduction to tools (exploring)- pencil, chalk, crayons, paint, paintbrushes, playdough, rolling pin, playdough cutter, glue sticks, threading sticks- **continuous provision all year revisiting modelling of safe use throughout.**

Exploring different media- paper, blocks, playdough, duplo. Talk about the names of different media and how they might be used. Modelling appropriate use and allow the children to explore.

Building and balancing- exploring building blocks. How do they fit together? Can they fix together? Talk about what 'fix' means and how this can be done. Do they balance? Can you copy a pattern/shape? What blocks would be best for...?

Making simple enclosures with support- talk about what enclosures are/their purpose. Look at and talk about examples in real life. Look at a range of materials and media and discuss which ones would be better suited and why. Practise skills of cutting and sticking modelling appropriate use of tools.

Early introduction to tools (using appropriately the Autumn 1 tools)- snipping with scissors, rolling out and cutting playdough shapes, glue spreaders- modelling safe and appropriate use.

Snipping into a toilet rolls to make firework printing- talking about holding toilet roll in one hand, making snips with dominant hand, turning the roll as you snip.

Elf shoe (hoofies)

Make- threading skills- bead sticks, laces and beads, laces and buttons, threading templates- Look at a variety of shoes and discuss the types of fastenings (laces, Velcro, zips, buttons). Practise fastening the different types of shoes. Model threading skills using one hand to keep it steady and the weaving motion (down and back up).

Health and Safety

Remove any jewellery and tie back long hair.

Make sure that you tidy up properly after yourself.

Make sure that you are handling tools safely and correctly.

Cross curricular links

PSED- fine motor and gross motor skills throughout the year to enable children to use tools effectively.

Communication and Language- children must listen carefully in lessons and often expected to follow instructions. Children will be encouraged to understand and use subject specific vocabulary throughout the year. Children will be required to talk about their likes and dislikes of existing products and explain what they are doing whilst making their own.

Mathematics- adults will be explicitly modelling mathematic language when measuring amounts during making bread.

Useful links

Key vocabulary	
Cut	Use scissors to change the shape
Join	Stick of fix things together
Build	Make something by putting parts together
Design	Plan what you want to make
Make	Put your plan into action
Tools	Things we use to help us build or cut

Talking about our work
I am making a...
I used... because...
I joined it by...
Next time, I might...

New Invention Infant School Knowledge Organiser

[Design and Technology]

Year group:	Strand:
Reception	Food and Nutrition

My prior knowledge What I should already know before starting this topic:
• Name some simple every day foods • Use a spoon to feed themselves • Spread butter using a knife

Final Product/Assessment
Autumn– Children should be able to feed themselves competently with a spoon. Children should be able to hold a knife to spread butter onto bread. Children should be able to use a fork with their least dominant hand to stab foods to keep them still. **Spring**– Children will be able to produce a healthy wrap using a range of skills. Children will be able to understand healthy and unhealthy foods, helping them to make healthy decisions. **Summer**– Children should be able to say what they like and dislike about a product. They should be able to follow simple instructions in a group to produce a food product. Children will be able to choose what they want to make and carry it out with support.

Assess
Teacher assess: Does the child hold the knife using the correct grip? Can the child chop/peel/spread/grate effectively? Can the child scoop food using a knife and fork without spilling? Does the child understand the difference between healthy and un-healthy foods? Can they name some? **Child voice:** What would we use to chop up food? What would be the best thing to use to eat soup with? Which bread did you like the best? Why?

What will I know by the end of this unit? [e.g. key facts, concepts]
Eat appropriate foods with a knife and fork
Chop, peel, spread and grate safely
Follow instructions to make a healthy wrap
Understand the importance of a healthy diet
Understand the difference between healthy and unhealthy
Names of every day food

Investigate and Design

Spring Term—making a healthy wrap

Children will be tasting salad vegetables and saying what they like/dislike about them.



Summer Term- making a healthy lunchbox

Children will be tasting and sorting foods into healthy and unhealthy food groups.

Make

Autumn Term-

Use a knife and fork to feed themselves independently.

Spread soft butter with a knife using dominant hand— index finger should point down the top of the blade (digital pronate grip).


Spring Term-

Using appropriate utensils to chop, peel, grate and spread simple foods.

Understanding the healthy eating plate and the importance of a balanced diet.


Summer Term-

Understanding the need for a healthy diet.

Making a healthy lunchbox.

Health and Safety

Remove any jewellery and tie back long hair.

Check the dates on food, and check for allergies of those eating.

Wear an apron and roll up your sleeves.

Washing your hands should be done before, during and after preparing

Make sure that you clean up properly after yourself.

Engagement motivation and thinking (CoL) and PSED

Shows high levels of engagement during practical and fact based learning. Children will be willing to try new foods, outside of their comfort zone. When faced with challenges, children will show resilience to overcome these.

Assess

Teacher assess:

Does the child hold the knife using the correct grip?

Can the child spread butter effectively?

Can the child scoop food using a spoon without spilling?

Can the child hold a fork with the correct grip and stab food accurately?

Can the child chop strawberries using a claw grip and dominant hand to chop?

Child voice:

What would we use to chop up food?

What would be the best thing to use to eat soup with?

Which bread did you like the best? Why?

Useful Links

Using a Fork and Knife Information Sheet | NHS GGC

Homemade Bread - Baking recipe for Kids - YouTube

Cooking in the Kitchen - Kids Song - Pretend Play Cooking with Fun Food for Kids - YouTube

How to educate children about food in the early years (earlyyearscareers.com)

Key vocabulary

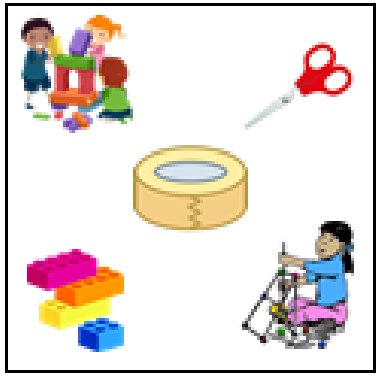
Simple	
Spoon	A utensil used to scoop foods
Knife	A utensil used to stab foods
Fork	A utensil used to cut foods
Goldilocks	
Chop	To cut something into pieces using a knife
Scoop	To move something out of a container using a spoon
Spread	To use a knife to put butter over bread
Stab	To put the fork in food to keep it still when cutting
Cut	
WOW!	
Peel	To remove the outer covering or skin from (a fruit or vegetable).
Grate	To reduce (food) to small shreds by rubbing it on a grater.
Healthy	Food which is nutritional and aids in growth and strength of the body.
Unhealthy	Food that is low in nutritional value and should be eaten in moderation.

Final Product/Assessment
A range of activities in continuous provision, adult led and outdoor jobs to focus to investigate, evaluate and design Before each activity discuss as a class, look at real life examples of each and their purpose. Talk about what they are going to do, what materials/media/tools they might use and how they will know if it is successful. After each activity discuss what they have done to make it, did it work and would they do anything different next time. Humpty Dumpty– building walls, protect the egg competition (adult led) Jack & Jill– bucket experiment (adult led) Incy Wincy– threading webs on paper plates (adult led), pipes and drains London Bridge– making bridges, lego, table to table, ramps outside, testing bridges (adult led)

Assess
Teacher assess: Can the child: hold scissors, pencils, cutters and glue spreaders correctly? Build with blocks? Roll, stretch, bend and pinch materials? Plan what they will make? Talk about what they are using? **Child voice:** I am making a.. I used.. because.. I joined it by.. Next time, I might..

New Invention Infant School Knowledge Organiser

[Design and Technology]



Year group: Reception	Strand: Basic Skills

My prior knowledge What I should already know before starting this topic:
• The names of every day equipment e.g. glue, pencil, chalk, scissors, playdough cutters, crayons, lego, duplo • How to build and balance blocks

What will I know by the end of this unit? (e.g. key facts, concepts)
Explore different materials
Use tools and materials safely
Try out joining, cutting, and building
Plan what we want to make
Join things together
Rolling and folding
How to choose materials
Talk about how things work

Investigate and Design

Adult led discussions based around specific questions- what will you make? How can you fix it together? Look at and model the tools that will be used.

Children exploring different materials and equipment.

Engagement motivation and thinking (CoL) and PSED

Shows high levels of engagement during practical and fact based learning. Children will be willing to try new foods, outside of their comfort zone. When faced with challenges, children will show resilience to overcome these.

Key vocabulary

Design	A plan what you want to make
Join	Stick of fix things together
Build	Make something by putting parts together
Design	Plan what you want to make
Make	Put your plan into action
Tools	Things we use to help us make
Materials	What we use to build

Make

Reminder of the key skills from Nursery- model, practise a skill and then apply independently

Skills- glue, staplers, tape, glue spreaders, blue tac, pipe cleaners, fasteners, scissors, hole punches. Talk about the names of different media and how they might be used. Modelling appropriate use and allow the children to explore.

Before continuous provision session, talk about what they plan to make and what they might use e.g. cardboard box, egg, paper, bottle etc.

Using spoons, knives and forks- dinner time and plenty of opportunities for special snacks that require knives and forks e.g. beans, toast, bananas, carrots (cooked), cereal. Appropriate modelling

A range of activities in continuous provision, adult led and outdoor jobs to focus to investigate, evaluate and design

Before each activity, discuss as a class, look at real life examples of each and their purpose. Talk about what they are going to do, what materials/media/tools they might use and how they will know if it is successful. After each activity discuss what they have done to make it, did it work and would they do anything different next time.

Humpty Dumpty- building walls, protect the egg competition (adult led)

Jack & Jill- bucket experiment (adult led)

Incy Wincy- threading webs on paper plates (adult led), pipes and drains

Cross curricular links

PSED- fine motor and gross motor skills throughout the year to enable children to use tools effectively

Communication and Language- children must listen carefully in lessons and often expected to follow instructions. Children will be encouraged to understand and use subject specific vocabulary throughout the year. Children will be required to talk about their likes and dislikes of existing products and explain what they are doing whilst making their own.

EAD- Creating and using materials in different ways

UTW- Exploring how things work

Talking about our work

I made this because...
I used... because...
I joined it by...
Next time, I would...

Health and Safety

Remove any jewellery and tie back long hair.

Make sure that you tidy up properly after yourself.

Make sure that you are handling tools safely and correctly.

What we might use

Materials	Tools
Card and paper	Scissors
Fabric and felt	Glue sticks and PVA
Boxes and tubes	Tape
Straws, sticks	Hole punch or split pins
String, ribbon	Lollipop sticks

Assess
Teacher assess: Does the child hold the knife using the correct grip? Can the child cut and chop appropriately? Can the child explain what they are making and why? Can the child follow instructions to create a specified product? Does the end product look similar to existing products? **Child voice:** What would we use to chop up food? What would be the best thing to use to eat soup with? Which bread did you like the best? Why? What will you use? Why? What would you do better next time? How would you do this?

New Invention Infant School Knowledge Organiser

[Design and Technology]

Year group:	Strand:
KS1	Food and Nutrition

My prior knowledge What I should already know before starting this topic:
• Understand the importance of a healthy diet. • Eats a healthy range of foodstuffs and understands need for variety in food. • With support, can prepare simple meals such as sandwiches and wraps. • Knows and uses names of common foods. • Knows and uses names of common equipment.

What will I know by the end of this unit? [e.g. key facts, concepts]

- Understand the importance of a healthy diet
- Know the different food groups
- Name the equipment needed and use them safely
- Use simple given tools and equipment safely to perform practical tasks
- Understand what a recipe is and begin to follow with support
- Begin to understand where food comes from e.g. pork comes from a pig, fruit and vegetables are

Skills and techniques

Use and understand the vocabulary of a healthy balanced diet

-Fruit and vegetables: e.g. apples, tomatoes, lettuce

They contain vitamins and minerals.

-Carbohydrates: e.g. starchy foods like bread and pasta. They give us lots of energy!

-Proteins: e.g. beans, fish, eggs, meat. They help us to build muscle.

-Dairy: e.g. milk, butter, cheese. They contain calcium for our bones.

Skills

Peel- using a peeler to remove the skin of food

Mix ingredients with increasing strength

Spread soft ingredients

Measure with accuracy

Grate soft foods using a grater

Arrange foods

Sift flour using a sieve

Cutting and chopping

Bridge hold cut

Claw grip cut

Links to National Curriculum

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 [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- 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.

Engagement motivation and thinking (CoL)

Shows high levels of engagement during practical and fact based learning. Children will be willing to try new foods, outside of their comfort zone. When faced with challenges, children will show resilience to overcome these.

Cross-curricular links if appropriate

English- Reading and writing recipes for their food products.

Science- knowing where food comes from e.g. plants or animals.

Geography- understanding and trying foods from different countries and cultures.

Maths- measuring ingredients with accuracy.

Health and Safety

Remove any jewellery and tie back long hair.

Washing your hands should be done before, during and after preparing food.

Wear an apron and roll up your sleeves.

Make sure that you clean up properly

Check that food is cooked right the way through.

Check the dates on food, and check for allergies of those

Use different chopping boards and knives for raw meat & other foods.

Wash your hands with hot water and antibacterial soap.

Glossary

Fruit	These foods contain vitamins and minerals. E.g. bananas, apples, oranges
Vegetables	These foods contain vitamins and minerals. E.g. lettuce, cucumber, peppers
Carbohydrates	Starchy foods like bread and pasta. They give us lots of energy.
Protein	These foods help us to build our muscles. E.g. beans, fish, eggs and meat.
Dairy	These foods contain calcium to make our bones stronger. E.g. milk, butter, cheese.
Fats and sugars	These foods give us some energy. Too much of this food group can cause health problems. E.g. sweets, chips, fast food
Nutrition	Food and drinks provide this to help our body grow and develop.
Equipment	The tools needed to prepare and produce meals.
Ingredients	The range of food needed to produce a meal.
Recipe	The instructions to follow to produce a meal.
Balanced Diet	Eating a range of different foods from a variety of food groups.
Food Source	Where the food comes from. E.g. plants, animals.
Mixing	To blend ingredients together using a spoons, blender or a whisk.
Weighing	To get the right amount of an ingredient using scales.
Measuring	To get the right amount of an ingredient using tablespoons, teaspoons and measure jugs.
Baking	To cook food in a heated oven on a specific temperature.
Grilling	To cook food by putting it under a hot grill (like a radiator on a cooker)

Useful Links

https://www.nhs.uk/change4life/food-facts

https://www.bda.uk.com/resource/healthy-eating-for-children.html

https://www.topmarks.co.uk/Search.aspx?q=healthy%20eating%20games

New Invention Infant School Knowledge Organiser

[Design and Technology]

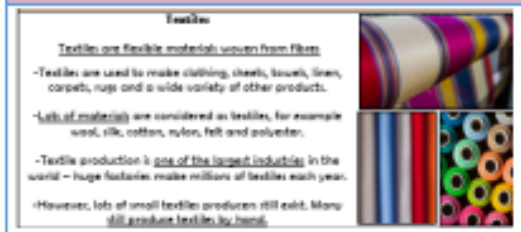
Year group:	Strand:
KS1	Textiles

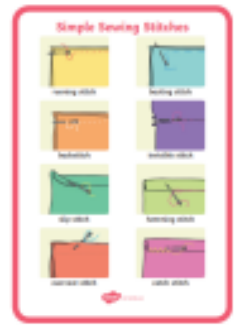
My prior knowledge What I should already know before starting this topic:
• Understand that different equipment is used to make different effects on materials • Understand and know the process of threading a variety of objects

What will I know by the end of this unit? [e.g. key facts, concepts]

Names the tools they are using
Uses equipment appropriately to produce to desired effect
Uses given materials and components exploring their characteristics and suitability and how they work
Understand how to use equipment appropriately
Beginning to use tools with accuracy and precision
Selects appropriate resources and tools to create the desired effect
Uses and applies prior taught skills
Draws upon taught skills to select the most appropriate method and mechanism to create desired product
Uses subject specific vocabulary without prompting

Skills and techniques





Weaving: using two or more threads to form a piece of fabric by crossing them over.

Example Textiles		
	Blankets and Quilts Made with cotton Decorated using appliqué templates	-Blankets and quilts are often made with cotton. It is an appropriate material for this purpose because it is soft and is a good insulator (it holds heat in well). -Appliqué templates have been used to create the decorations. Appliqué is a sewing technique where fabric shapes are attached onto the main fabric. Templates can be made from many materials (e.g. card) and can formed around everyday objects, e.g. coins, coasters, bottles.
	Children's Clothes Made with cotton/ polyester Decorated using appliqué templates	-Children's clothes are also often made using cotton, or with polyester (a man-made fibre that is strong and durable). -In order to decorate clothes, the appliqué technique is often used. In this example, the designer has used appliqué to add the snow and reindeer to this green Christmas dress. They need to be attached securely!

Links to National Curriculum

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 [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- 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.

Engagement motivation and thinking (CoL)

Shows high levels of engagement during practical and fact based learning. When faced with challenges, children will show resilience to overcome these.

Cross-curricular links if appropriate

Maths- reading measurements with accuracy.

Geography- thinking about the different patterns and fabrics that are used around the world.

Health and Safety

When you are not using a needle, keep it in the same safe place.

Walk safely and calmly around the classroom/ workshop.

Remove any jewellery and tie back long hair.

Follow the teacher's instructions correctly.

Report all accidents & clean up properly after yourself.

Make sure that you are wearing the correct equipment for tasks.

Keep your work area and floor area clear – keep your belongings well clear.

When using a needle, keep your fingers well clear. Use a thimble where available.

Glossary

Textiles	A type of cloth or fabric
Fibre	The threads that fabric is made out of
Woven	Fabric that is made by weaving materials together
Cotton	The material used to thread
Thread	A long, thin strand of cotton to use to sew parts together
Needle	A long, pointy metal object that is used to sew
Appliqué	Using a needle and thread to make designs onto a larger piece of fabric.
Template	An example of an outline that you can copy and cut around
Seam	A line where two or more pieces of fabric are sewn together
Design	Thinking about what the product will look like, taking into consideration the tools, skills and materials needed to achieve this.
Make	Using and applying prior knowledge and skills to create the product.
Evaluate	Looking back at the product against the design criteria.

New Invention Infant School Knowledge Organiser

[Design and Technology]

Year group:	Strand:
Year 1	Mechanisms

My prior knowledge What I should already know before starting this topic:
• Know how to fix things together • Can use simple given materials and equipment to make a desired product • Can use simple given materials and equipment appropriately and safely

What will I know by the end of this unit? [e.g. key facts, concepts]

- Names the tools they are using
- Uses equipment appropriately to produce to desired effect
- Explores mechanisms (levers, sliders, wheels, axles) and begins to use these in structured activi-
- Understand how to use equipment appropriately
- Beginning to use tools with accuracy

Skills and techniques

Example Mechanisms

	**Levers** Seesaw	-A seesaw is one example of a lever mechanism. Seesaws are a narrow board supported by a fulcrum in the middle point between the two ends. As one end goes up, the other comes down!
	Scissors	-Scissors are another example of a lever mechanism. Scissors have two levers fixed – [handles are squeezed at one end of the levers, the blades come together at the other end.
	**Sliders** Children's Books	-Some children's books contain slider mechanisms. As the slider is pushed/ pulled, characters/objects move up and down or side to side in the books.
	Drawers	-Drawers also work on a slider mechanism. As you pull/push the handle, drawers slide along a slider track inside the cabinet.

Example Mechanisms

	Ferris Wheel	-A Ferris Wheel is one example of a wheel and axle mechanism in action. Normally, Ferris Wheels are fixed to the axle. Force is applied to the axle which makes it spin. This makes the giant wheel spin too!
	Roller Skates	-Roller skates are another example of wheel and axle mechanisms. Obviously, there are four wheels here instead of one, and the wheels are much smaller. Often, the wheels rotate free from the axle, but sometimes they are fixed.
	Toy Car	Toy cars (and real cars) use wheel and axle mechanisms to move. On toy cars, the wheel is normally fixed to the axle, meaning both the wheel and axle spin. This makes it really important that there is not too much friction on the axle, or the wheel will not move!

Links to National Curriculum

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 [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

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Engagement motivation and thinking (CoL)

Shows high levels of engagement during practical and fact based learning. When faced with challenges, children will show resilience to overcome these.

Cross-curricular links if appropriate

Maths- reading measurements with accuracy.

History- how structures, buildings and vehicles have changed over time.

Health and Safety

If you need to move around with scissors, hold around the closed blades, facing down.

Walk safely and calmly around the classroom/ workshop.

Remove any jewellery and tie back long hair.

Wear an apron and roll up your sleeves.

Report all spillages & clean up properly after yourself.

Make sure that you are wearing the correct equipment for tasks.

Keep your work area and floor area clear – keep your belongings well clear.

Follow the teacher's cutting instructions carefully.

Glossary

Mechanism	The parts that make something work.
Slider	Helps to move things from side to side and up and down.
Lever	Makes things move in a curve motion.
Pivot	The action of turning around on a point.
Bridge	A structure built over something.
Wheel	Circular objects that roll on the ground, helping vehicles and other objects to move easily.
Axles	Rods that help the wheels to rotate.
Dowel	A pin or peg used for fastening together two pieces of wood.
Chassis	The strong frame or base on which the vehicle is built.
Design	Thinking about what the product will look like, taking into consideration the tools, skills and materials needed to achieve this.
Make	Using and applying prior knowledge and skills to create the product.
Evaluate	Looking back at the product against the design criteria.

Useful Links

https://www.bbc.co.uk/bitesize/subjects/zb9d7ty

https://www.stem.org.uk/cpd/44650/mechanisms-and-mechanical-systems-ks1-and-ks2

New Invention Infant School Knowledge Organiser

[Design and Technology]

Year group:	Strand:
Year 1	Structures

My prior knowledge What I should already know before starting this topic:
• Begins to explore building materials • With adult support, can talk about how they might make their structure better • Build using connecting and free standing blocks

What will I know by the end of this unit? [e.g. key facts, concepts]

Names the tools they are using
Uses equipment appropriately to produce to desired effect
Builds structures and begins to explore how they can be made stronger/more stable
Understand how to use equipment appropriately
Beginning to use tools with accuracy and precision
Selects appropriate resources and tools to create the desired effect
Uses and applies prior taught skills
Draws upon taught skills to select the most appropriate method and mechanism to create desired product
Uses subject specific vocabulary without prompting
Understands how to improve product by making it stronger, stiffer and more stable

Skills and techniques

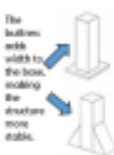
Example Structures

	Name: Burj Khalifa Location: Dubai, United Arab Emirates Height: 828m Floors: 163 Built in: 2010	-The Burj Khalifa is the tallest freestanding structure in the world. -It has an extremely wide base, and is very narrow at the top. -The steps down the sides help to protect the structure from the wind. -It has deep foundations in the ground. -It is made of strong, rigid materials – over 330,000m³ of concrete and 40,000 tonnes of steel reinforcement!
	Name: Forth Bridge Type: Railway Bridge Location: Scotland Length: 2,528m Built in: 1890	-The Forth Bridge is a long railway bridge in Scotland, across the Firth of Forth. -It is made of strong materials: it was one of the first bridges made of steel. The steel frame is built into triangles (a wide base and narrow top. It also has strong, stable concrete arms supporting on either side.

Designing – What makes a strong, stable, rigid structure?

A structure that is stable is less likely to fall over.

-Structures are more stable when they have a wider base.
-Buttresses can also make a structure more stable. A buttress is something that is built against a structure to give it more stability.



A structure that is strong and rigid is able to support more weight.

-Some materials are stronger and more rigid (stiffer) than others, e.g. card is stronger and more rigid than paper.

-Structures can also be made stronger and more rigid by making sure that parts and materials are properly joined together, e.g. with glue or tape.

-Folding and layering (adding an extra layer) of materials can also be used to strengthen and stiffen structures.

Links to National Curriculum

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 [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

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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.

Engagement motivation and thinking (CoL)

Shows high levels of engagement during practical and fact based learning. When faced with challenges, children will show resilience to overcome these. Will persevere when first attempts do not go to plan and can think of alternative ways to arrive at the

Cross-curricular links if appropriate

Maths- reading measurements with accuracy.

History- how structures, buildings and vehicles have changed over time.

Health and Safety

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Make sure that you are wearing the correct equipment for tasks.

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Follow the teacher's cutting instructions carefully.

Glossary

Structures	Something built or arranged in a definite way
Freestanding	Not attached to or supported by another structure.
Support	Helps the structure to stand up
Weight	The amount of heaviness it can hold
Strong	If it holds weight and does not break or fall
Rigid	Unable to bend or be forced out of shape; not flexible.
Stable	Not likely to move, fall or break
Base	The bottom of the structure
Materials	What the structure is made from
Layering	Using lots of different techniques to ensure the structure is strong
Design	Thinking about what the product will look like, taking into consideration the tools, skills and materials needed to achieve this.
Make	Using and applying prior knowledge and skills to create the product.
Evaluate	Looking back at the product against the design criteria.

Useful Links

https://www.stem.org.uk/resources/community/collection/285271/structures

http://www.ichild.co.uk/activities/view/1583/DT-Structures-KS1-and-KS2

New Invention Infant School Knowledge Organiser

[Design and Technology]

Year group:	Strand:
Year 2	Mechanisms

My prior knowledge What I should already know before starting this topic:
• Know how to fix things together • Can use simple given materials and equipment to make a desired product • Can use simple given materials and equipment appropriately and safely

What will I know by the end of this unit? [e.g. key facts, concepts]

Names the tools they are using
Uses equipment appropriately to produce to desired effect
Explores mechanisms (levers, sliders, wheels, axels) and begins to use these independently
Understand how to use equipment appropriately
Beginning to use tools with accuracy and precision
Selects appropriate resources and tools to create the desired effect
Uses and applies prior taught skills
Draws upon taught skills to select the most appropriate method and mechanism to create desired product
Uses subject specific vocabulary without prompting
Understands how to improve product by making it stronger, stiffer and more stable

Skills and techniques

Example Mechanisms

	**Levers**	-A seesaw is one example of a lever mechanism. Seesaws are a narrow board supported by a fulcrum in the middle point between the two ends. As one end goes up, the other comes down!
	Seesaw	
	Scissors	-Scissors are another example of a lever mechanism. Scissors have two levers fixed a handles are squeezed at one end of the levers, the blades come together at the other end.
	**Sliders**	-Some children's books contain slider mechanisms. As the slider is pushed/ pulled, characters/objects move up and down or side to side in the book.
	Children's Books	-Drawers also work on a slider mechanism. As you pull/push the handle, drawers slide along a slider track inside the cabinet.
	Drawers	

Example Mechanisms

	Ferris Wheel	-A Ferris Wheel is one example of a wheel and axle mechanism in action. Normally, Ferris Wheels are fixed to the axle. Force is applied to the axle which makes it spin. This makes the giant wheel spin too!
	Roller Skates	-Roller skates are another example of wheel and axle mechanisms. Obviously, there are four wheels here instead of one, and the wheels are much smaller. Often, the wheels rotate free from the axle, but sometimes they are fixed.
	Toy Car	Toy cars (and real cars) use wheel and axle mechanisms to move. On toy cars, the wheel is normally fixed to the axle, meaning both the wheel and axle spin. This makes it really important that there is not too much friction on the axle, or the wheel will not move!

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Cross-curricular links if appropriate

Maths- reading measurements with accuracy.

History- how structures, buildings and vehicles have changed over time.

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Design	Thinking about what the product will look like, taking into consideration the tools, skills and materials needed to achieve this.
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Useful Links

https://www.bbc.co.uk/bitesize/subjects/zb9d7ty

https://www.stem.org.uk/cxl/446502/mechanisms-and-mechanical-systems-ks1-and-ks2

New Invention Infant School Knowledge Organiser

[Design and Technology]

Year group:	Strand:
Year 2	Structures

My prior knowledge What I should already know before starting this topic:
• Begins to explore building materials • With adult support, can talk about how they might make their structure better • Build using connecting and free standing blocks • Build structures and explain how they could make it stronger or more stable

What will I know by the end of this unit? [e.g. key facts, concepts]

- Names the tools they are using
- Uses equipment appropriately to produce to desired effect
- Builds structures and begins to explore how they can be made stronger/more stable
- Understand how to use equipment appropriately
- Beginning to use tools with accuracy and precision
- Selects appropriate resources and tools to create the desired effect
- Uses and applies prior taught skills
- Draws upon taught skills to select the most appropriate method and mechanism to create desired product
- Uses subject specific vocabulary without prompting
- Understands how to improve product by making it stronger, stiffer and more stable
- Talk about their developing design and identify what they need to do next
- Builds structures, exploring how they can be made stronger, stiffer and more stable

Skills and techniques

Example Structures

Name: Burj Khalifa

Location: Dubai, United Arab Emirates

Height: 828m

Floors: 163

Built in: 2010

-The Burj Khalifa is the tallest freestanding structure in the world.
-It has an extremely wide base, and is very narrow at the top.
-The steps down the sides help to protect the structure from the wind.
-It has deep foundations in the ground.
-It is made of strong, rigid materials – over 330,000m³ of concrete and 40,000 tonnes of steel reinforcement!

Name: Forth Bridge

Type: Railway Bridge

Location: Scotland

Length: 2,528m

Built in: 1890

-The Forth Bridge is a long railway bridge in Scotland, across the Firth of Forth.
-It is made of strong materials it was one of the first bridges made of steel. The steel frame is built into triangles (a wide base and narrow top. It also has strong, stable concrete arms supporting on either side.

Designing – What makes a strong, stable, rigid structure?

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Design	Thinking about what the product will look like, taking into consideration the tools, skills and materials needed to achieve this.
Make	Using and applying prior knowledge and skills to create the product.
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Health and Safety

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Questioning

Area of	Nursery/The Hub	Reception	Year One	Year Two
Design	What are you going to make/build? What will you need? What colour will your….. Be? Can you draw a picture of what you are going to make? Can you tell me what you are going to do? What would be the best way to do that? Can you copy that? How will you copy that? Would that make a good….?	What are you going to make today? What are you going to use? Why? How will you make it? Who is it for? What will it do? What material would be best? How do you know? What will you do first? What tools will you need?	What is a lever? What makes a lever work well? How can we make a picture move? What is a mechanism? How does a mechanism work? What does design mean? What does technology mean? What will you need? Why do you need to plan/design? Who is your target audience or who are you making it for? What is a background? What is the best material for this? What tools would be best to make your design? Why?	What type of materials will you use and why? What is the function of the product? What types of vehicle do you know? What parts do all vehicles need? What material is the bridge made from? Why? What type of bridge is it? What features does your product need to be able to function? What equipment would you need to make your product?

Area of	Nursery/The Hub	Reception	Year One	Year Two
Make	Where will you find that? What are you making? How are you going to join that together? Do you need help? Is that safe? Can you stack the bricks? Can you build a… What have you done? How did you make that? Can you balance/stack the bricks?	What you doing? What is that? What are you using? Why? Is it working? Is it going the way you planned? Could you try another way? What else could you use? Can you show me the…? What does that part do? What will you do next? What will you do to finish it off?	What materials do you need? What equipment do you need? Have you got everything you need? How can we join the materials together? What does finished look like? How do you make something with a nice finish? How your design looking so far? What will you do next? Are you following your/design plan? Have you had to change anything on your design? Why?	How will you fix the materials together? How will measure the materials? How will you change the size of the materials? What ingredients will you use and why? What method will you follow and why?

Area of	Nursery/The Hub	Reception	Year One	Year Two
Evaluate	Did that work? How do you know? Why have you used that? What have you done? Is it a good ….? Why? What would you do differently? Would you make any changes? How could you make it stronger/better? Do you like what you have made? Why? Did you copy it? Does it look the same? Does it taste nice?	Do you like your work? What do you like about it? Why? What don't you like about it? Why? How could you change it? How could you improve it? What could you do better next time? Does it work? (peer evaluations) - what do you like/dislike about your friend's creation? How did you make it? Why did you do it that way? Why have you used those materials?	What have you made? How can you improve? What would you change if you made it again? What did you like about your design? What did you dislike about your design? Did you change anything from your design/plan? Why? Was there anything you found challenging? What did you find easy? Why did you choose that pattern? Why do you like that pattern? Why did you choose to use that material? Why did you join it together like that? Is it neat? Is it tidy? Could you have done any better? Do you like what you have made? Did it meet your design criteria? Did you follow your design criteria?	What material was successful? Why? What material did not make a good bridge? Why? How could we change or improve the bridge? What and how would you change it next time? Did your product meet its purpose? Does your product match your design?

Area of	Nursery/The Hub	Reception	Year One	Year Two
Technical Knowledge	How do you use the….? Safely? What would you use to stick it together? Why do we need to wash our hands before cooking/making food? What do we need to remember when we are using scissors/glue spreaders/building bricks?	What materials would be best to…? How do you know? What tools would be best to…? Why? How could we test the materials? How could you join them together? How do you use it safely? Why is it important to use it safely? How can you make it stronger? Who would use it? What would you use it for? Is it waterproof? How do you know?	What does D&T stand for? What is a design? What is technology? What does join mean? What does fixing mean? What does finish mean? What does the word product mean? What is a plan? What does design criteria mean? What do you need to follow to make a product? How do you safely use this equipment ?	What type of bridge is this and how do you know? What is a free axle? What is a fixed axle? What should you do before you prepare food? How could you use a knife safely? How would you use a saw safely?


SEND

Inclusive pedagogy for all learners in DT

How we create an inclusive environment in DT:

- Teachers consider practical layout of the classroom. They consider positioning of children to ensure they can access, and have room to access learning. Along with this, teachers consider the positioning of resources that encourages the children to gain confidence and independence to select their own resources.
- In DT, teachers foster an environment that encourages children to experiment with different resources and methods. A variety of model examples and suggestions are given to help children.
- Children with additional needs may need a wider bank of resources to help them achieve the same goal. This may include chunkier pencils, soft 'B' pencils, or bounce back scissors.
- Lessons are planned in advance, to ensure that extra resources, scaffolding and alternative methods can be planned for each individual need.

How we scaffold learning to support children who have literacy and numeracy difficulties:

- We provide additional visual aids for children to learn and convey knew knowledge about people of importance to the subject, subject specific vocabulary, instructions and skills. These can be a flowchart of the instructions with visual clues, a word/picture bank or objects of reference.
- We support children with heavy adult modelling when learning new skills. This can be adapted for individual needs with more direct instruction, I do we do you do.

How we scaffold learning to support children who struggle to retain vocabulary:

- Teachers introduce, discuss and display any key vocabulary along with the meaning.
- This new vocabulary will be referred to and used frequently by practitioners.
- Visual word banks will be provided and displayed for those who need them.
- Teachers will provide opportunities for small group work to pre-teach subject specific vocabulary.

How we scaffold learning to support children who need time to develop conceptual understanding:

- Teachers will provide opportunities for small group work to pre-teach the subject specific vocabulary. This can happen before the lesson or during the lesson.
- Children can work in small groups to go step by step and take a slower pace to ensure that children develop their understanding.
- Opportunities can be provided to revisit skills and knowledge, providing a repetitive structure to help maintain information.
- Teachers take time to model and demonstrate each step of the process, allowing children to develop their understanding through a participatory approach.
- Teachers will provide opportunities to explore new materials or equipment.
- Teachers will revisit learning from previous sessions and show outcomes of children's previous work.
- Visual aids will be heavily incorporated into lessons.
- Teachers will stick to the same repetitive structure to help children follow tasks clearly.

How we scaffold learning to support children with attention difficulties:

- During tasks, teachers will think about the placement and positioning of children to maximise their engagement.
- Where appropriate, teachers will break the lesson into chunks, including paired or group talk to allow tasks to be completed across manageable stages and check points.
- As with all learning, movement breaks are incorporated into all sessions. This can be targeted to individual needs such as designated classroom monitors.
- Visual aids can be used to set out each step of a task, or a list of equipment the children may need.

How we support children who struggle with change and transitions:

- All learners are taught to clean and tidy up after each session. This helps to manage transitions whilst also encouraging independence.
- Visual aids and countdowns can be provided for either individual children or for whole class to warn children of the end of the task.

Assessment

Pre-Nursery and Nursery

Pre-NURSERY 18-36 months

Names												
Makes marks in sensory play with finger and sometimes tools												
Notices and interested in the effects of making movements which leave marks												
Explores colour and texture through sensory experiences												
Creates with support from an adult e.g. balances blocks, makes marks on paper												
Is beginning to make believe by pretending e.g. mouthing pretend food												

BASELINE for Nursery

Names												
Can use pencils, paintbrushes, glue sticks and spreaders appropriately												
Can name four colours correctly and uses colours to paint and draw but not always appropriately												
Uses simple materials to create e.g. building a tower, painting on the easel, colouring a picture												
Makes believe by pretending e.g. talking on the phone, hoovering, cooking												
Can use pencils, paintbrushes, glue sticks and spreaders appropriately												

Working Towards END OF YEAR EXPECTATIONS FOR NURSERY

Names										
Can use pencils, paintbrushes, glue sticks and spreaders appropriately										
Talks about colours and textures										
Talks about their creations										
Role plays with some of the resources that are given to them										

Expected for END OF NURSERY and baseline for Reception											
Names											
Uses some simple tools appropriately											
Experiments with colour and texture and can use colours appropriately											
Talks about their creations including some of the things they have used.											
Makes use of given resources appropriately when role playing e.g. farmers outfits, hosepipes for firefighters											

Reception

Expected for END OF NURSERY and baseline for Reception

Names							
Uses some simple tools appropriately							
Experiments with colour and texture and can use colours appropriately							
Talks about their creations including some of the things they have used.							
Makes use of given resources appropriately when role playing e.g. farmers outfits, hosepipes for firefighters							

Working TOWARDS EARLY LEARNING GOAL						
Names						
Begins to use and explore a variety of materials and tools experimenting with colour, texture and function.						
Talks about their creations and talks about some of the things they did to make it.						
Makes use of props and materials when role playing.						

Working AT EARLY LEARNING GOAL

Names						
Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function						
Share their creations, explaining the process they have used						
Make use of props and materials when role playing characters in narratives and stories						

Working above THE EARLY LEARNING GOAL

Names						
Chooses the appropriate tools, techniques and materials to use and can talk about why they have chosen those over others. Talks about the safe use of tools and advises others						
Follows the design, make, evaluate process when creating and can talk in detail at each step independently						
Creates their own props and materials to use in role play						

Year 1

Baseline					
Names					
Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function					
Share their creations, explaining the process they have used					
Chooses the appropriate tools, techniques and materials to use and can talk about why they have chosen those over others. Talks about the safe use of tools and advises others					
Follows the design, make, evaluate process when creating and can talk in detail at each step independently					
Creates their own props and materials to use in role play					

Working TOWARDS THE EXPECTED STANDARD

Names					
Overarching With support, can follow taught skills in a structured activity. Begins to verbally evaluate their products against a given criteria.					
Design Work with an adult **to communicate ideas through talk and drawings.** **Can talk about what they like about existing products.**					
Make **Follow instructions to complete practical skills.** **Understand how to use tools safetly.**					
Evaluate **Begin to say what they like.** **Can talk about what they have made.**					
Technical Knowledge **Can build a simple structure.** **Explore mechanisms with support and talk about them.**					

Working AT THE EXPECTED STANDARD and baseline Year 2

Names					
Overarching **After discussions with an adult, uses taught skills in a variety of contexts to create a purposeful and appealing product. Begins to evaluate their products against a given criteria.**					
Design **Begin to communicate ideas through talk and drawings. Design purposeful and appealing products with support based on a given design criteria.**					
Make **Use given materials and equipment to complete practical tasks with support.** **Use a range of given materials and equipment safely and appropriately for their product- including construction materials, textiles and ingredients.**					
Evaluate **Begin to explore and evaluate a range of existing products by saying what they like and dislike about the product.** **With support, can talk about their own product and identify how they could make it better next time.**					
Technical Knowledge **Explore different structures and begin to experiment how they can make them stronger and more stable.** **Explore mechanisms and begin to use them in their products.**					
Engagement, motivation and thinking (CoL) **Engages in practical activities in a range of situations and shows enthusiasm when exploring new materials and tools.** **Shows a positive attitude when designing and making their products.** **Shows confidence when experimenting with new techniques and skills.** **Shows resilience when applying these new skills.** **Is able to comment on their own and a friends product appropriately.** **Developing a bank of subject specific vocabulary that they are beginning to use in context e.g. names of tools, names of techniques and skills**					

Working above THE EXPECTED STANDARD					
Names					
Remembers taught skills and use them appropriately when making a product.					
Independently uses a design specification to plan what they will make.					
Selects their own materials and equipment to complete given practical tasks and explain their choices. Including construction materials, textiles and ingredients.					
Evaluates a range of existing products by saying what they like and dislike about the product/How it might be made etc. Talks about their own product and identify how they could make it better next time.					
Explores different structures and begin to experiment how they can make them stronger and more stable.					
Explores mechanisms and begins to use them in their products.					
Is able to comment on their own and a friends product appropriately using a developing a bank of subject specific vocabulary beginning to use this in context e.g. names of tools, names of techniques and skills					

Year 2

Working TOWARDS THE EXPECTED STANDARD

Names					
After discussions with an adult, uses taught skills in a variety of contexts to create a purposeful and appealing product. Begins to evaluate their products against a given criteria.					
Begins to communicate ideas through talk and drawings to design purposeful and appealing products with support based on a given design criteria.					
Uses given materials and equipment to complete given practical tasks					
Use a range of given materials and equipment safely and appropriately for their product- including construction materials, textiles and ingredients.					
Is exploring and beginning to evaluate a range of existing products by saying what they like and dislike about the product/How it might be made etc. and with prompts, can talk about their own product and identify how they could make it better next time.					
Explores different structures and begin to experiment how they can make them stronger and more stable.					
Explores mechanisms and begins to use them in their products.					
Is able to comment on their own and a friends product appropriately using a developing a bank of subject specific vocabulary beginning to use this in context e.g. names of tools, names of techniques and skills					

Working AT THE EXPECTED STANDARD and baseline Year 2					
Names					
Draws upon a range of taught skills to creatively and imaginatively design and make purposeful, functional and appealing products within different contexts and use critical thinking to evaluate these against design criteria.					
Designs purposeful, functional and appealing products for themselves and other users based on design criteria and audience.					
Generates, develops, models and communicates their ideas through talking, drawing, templates, mock-ups and ICT where appropriate.					
Select from and use a wide range of materials and components, including construction materials, textiles and ingredients according to their characteristics to perform practical tasks.					
Explores and evaluates a range of existing products and evaluates their ideas and products against design criteria.					
Build structures, exploring how they can be made stronger, stiffer and more stable.					
Explores and uses mechanisms in their products where appropriate.					
Is able to evaluate their own and a friends product appropriately.					
Uses subject specific vocabulary confidently e.g. names of tools, names of techniques and skills					

Working above THE EXPECTED STANDARD					
Names					
Uses prior knowledge and taught skills to creatively and imaginatively design and make purposeful, functional and appealing products to fit their own design criteria. Is able to use critical thinking to appropriately evaluate their own and other products.					
Identifies a target audience and purpose for their product, and design to fit the criteria, justifying the features of the product, drawing on the design criteria.					
Selects the most appropriate tools and equipment to complete practical tasks, giving reasons for their choices and talks about their product as it progresses, identify what they need to do next and explaining their design choices as the product develops.					
Uses critical thinking to evaluate a range of existing products and their own, identifying likes, dislikes, improvements that could be made and assesses against design criteria.					
Uses and explains a variety of mechanisms in their products, giving reasons for their choices and knows how to improve structures and applies this knowledge to make structures stronger, stiffer and more stable.					
Sets high goals and sticks to their design criteria, showing resilience to achieve these goals and confidence when applying taught skills into a range of contexts, being able to choose appropriate skills for their chosen product.					
Is able to evaluate their own and a friends product appropriately, giving aspects to improve, referring to the design criteria using subject specific vocabulary confidently e.g. names of tools, names of techniques and skills					