Unit Title: Year 1

Joining Materials Together

Subject D&T

A Good Example (child work)

Unit Overview

To have the opportunity investigate some different joining methods and then create their own felt bird using a die-cut template and a choice of two different stitches.

The Journey-

The children have been learning about different animals and this bird is linked in with this part of the science topic. They get to experiment beforehand with some different fabrics and different types of joining methods: glue, staples, split pins, thread, blue tack etc and then discuss which worked best and is the strongest. Why do they think we use thread to sew our clothes?

Key Vocabulary/ Knowledge

Joining

Sticking

Overstitch

Running stitch

Needle

Eye of needle

Key D&T Skills (from the foundation subject assessment)

Select from and use a range of tools and equipment to perform practical tasks eg cutting, shaping, joining and finishing.

Use a range of simple tools to cut, join and combine materials and components safely.

NC Objectives

Design:

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

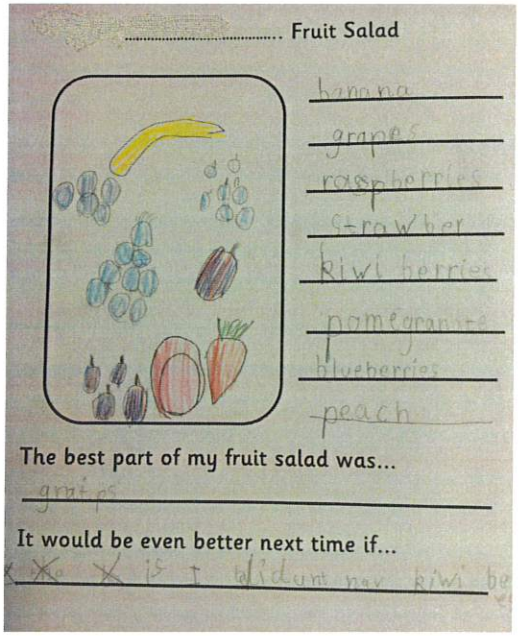
Unit Title:

Fruit Salad

Year 1

Subject D&T

A Good Example (artist and child work)



Unit Overview

To have the opportunity to try some new fruit and experiment with their own Fruit Salad recipe.

The Journey-

The children have been learning about the Eatwell Plate and have also been reading the Oliver's Vegetables collection of books which includes Oliver's Fruit Salad by Vivien French. The children have had the opportunity to share their ideas about fruit and vegetables and can now experiment with some new flavours and begin to use some independence over how to chop and slice different types of fruit.

Key Vocabulary/ Knowledge

Different types of fruit

Chopping

Slicing

Mixing

Tasting

Key D&T Skills (from the foundation subject assessment)

Use simple tools with help to prepare food safely.

Use pictures and words to describe what he/she wants to do.

NC Objectives

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

Unit Title: Year 1

A House for one of the Three Little Pigs

Subject D&T

A Good Example

Unit Overview

Learn some D&T skills and then plan and make a house using the skills learned.

The Journey-

The children have been learning about the Three Little Pigs in their English work and have explored the characters and talked about the materials that the houses are made of. In Science they have experimented with some different materials to see which material will be stronger/the best in the face of the Big Bad Wolf Hairdryer.

Key Vocabulary/ Knowledge

Cut

Bend

Fold

Stick

Attach

Key D&T Skills (from the foundation subject assessment)

Use a range of simple tools to cut, join and combine materials and components safely.
Select from and use a range of tools and equipment to perform practical tasks eg cutting, shaping, joining and finishing.

NC Objectives

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

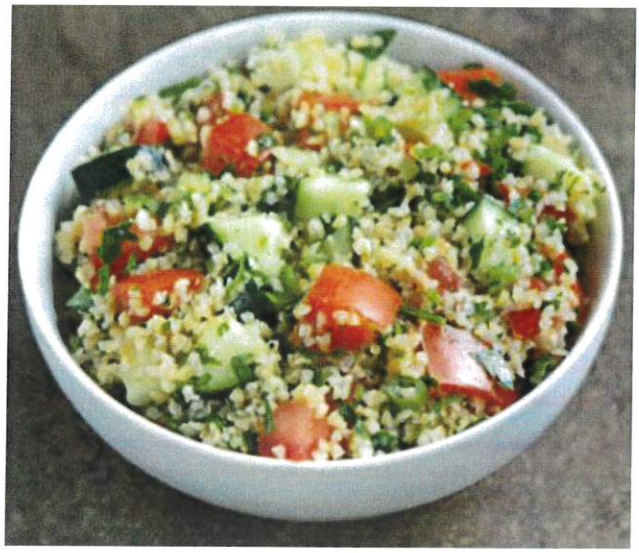
Unit Title:

Tabbouleh Salad

Year 1

Subject D&T

A Good Example



Unit Overview

To understand that we eat lots of different types of plant in our every day life. We begin to recognise plants that we call herbs. We make and eat our own salad.

The Journey-

In Science we are learning about the different types of plants that there are lots that we eat. Some of these are called herbs. We look at some and smell them and talk about why humans might use them. We look at dried bulgar wheat and talk about it. Then look at what happens to it when it has been in liquid. Why do humans dry it? We use simple cutting tools to cut vegetables and herbs and then put our salad together.

Key Vocabulary/ Knowledge

Mint

Basil

Parsley

Bulgar wheat

Key D&T Skills (from the foundation subject assessment)

Use simple tools with help to prepare food safely.

NC Objectives

Design:

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

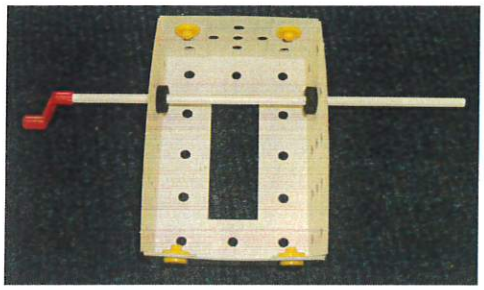
Explore and evaluate a range of existing products

Evaluate their ideas and products against design criteria

Unit Title:

Winding mechanisms - Castle with winding drawbridge

Subject D&T Y2



Unit Overview

Children learn about winding mechanisms in everyday toys and then in a team make a castle with a winding drawbridge.

The Journey- The children have been learning about Castles through their history topic and visit to Skipton Castle. They have learnt about the features of castles and then work together in a team to design and make their own castle out of a large Cardboard box and design and make a winding drawbridge (having first had the opportunity to put together a similar mechanism in pairs). Team work and careful design is crucial to the success of the mechanism and adjustments may need to be made to ensure it works correctly. Children are then given the opportunity to evaluate their work.

Key Vocabulary/ Knowledge

Axel , turns, handle

Winding mechanism

Parallel

Design

Evaluate

Key D&T Skills (from the foundation subject assessment)

- Learn techniques for making winding mechanisms
- to use tools accurately and safely
- to investigate ways of making a castle with a winding up drawbridge.
- evaluate their design.

NC Objectives

- to identify criteria for their design
- to select tools and materials and use correct vocabulary to name and describe them
- to assemble, join and combine materials to make a winding mechanism
- to understand the need for a stable structure to support a mechanism
- to evaluate against design criteria

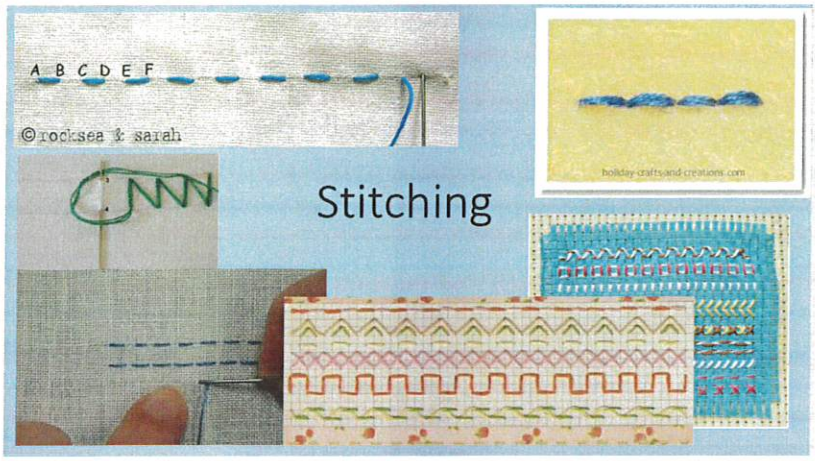
Unit Title:

Binka Sewing

Year 3

Subject D&T

A Good Example (artist and child work)



Unit Overview

To investigate different stitches, design and create a piece of sewing using binka to fit the brief.

The Journey-

The children will view the end results of children in prior year groups and make judgements on what has gone well and what could have been better and use these for inspiration to firstly design and then create their own piece of sewing to be fit onto a Mothers Day card. Children will be given time to first investigate different stitches and the material they are working with in order to iron out any issues before they begin (eg what happens if they sew to close to the edge or pull the thread too

Key Vocabulary/ Knowledge

Binka

Needle

Thread

Running stitch, cross stitch, line stitch, straight stitch, back

Key D&T Skills (from the foundation subject assessment)

Use simple tools with help to prepare food safely.

Use pictures and words to describe what he/she wants to do.

Where do I find these?

NC Objectives

use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups

select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

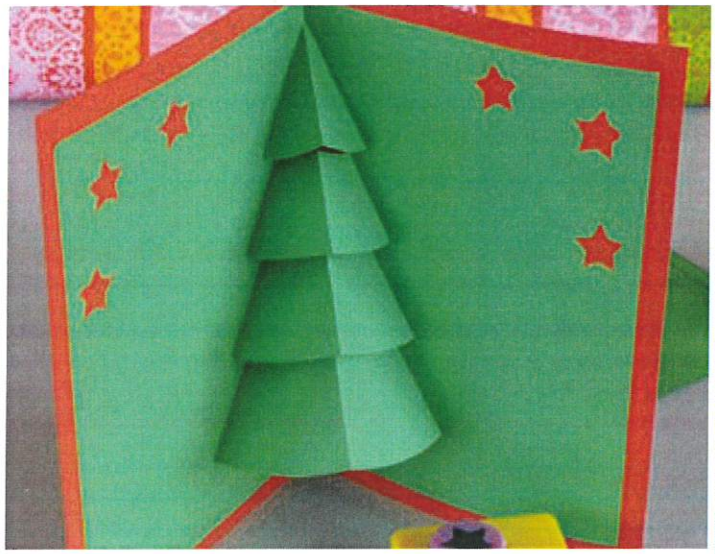
Unit Title:

Pop-up cards

Year 3

Subject D&T

A Good Example (artist and child work)



Unit Overview

To experiment with different fold and pop-up mechanisms to design and make a Christmas card for a family member.

The Journey-

The children will be given a range of pop-up cards to view and investigate the mechanisms and design. They will be shown how to create two different types of pop-up, one using one sheet, cutting and folding, the other gluing on other pieced of paper to create the pop-up mechanism. Children will design their pop-up card using either or a combination of the techniques they have learnt and then will create their Christmas card based on their design. Once complete, they will evaluate their own and each others cards with 2 stars and a wish.

Key Vocabulary/ Knowledge

Fold

Strengthen

Score

Rotate

Pop-up

Key D&T Skills (from the foundation subject assessment)

Use simple tools with help to prepare food safely.

Use pictures and words to describe what he/she wants to do.

Where do I find these?

NC Objectives

use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups

select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately

select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

Unit Title:

Roman Shields

Year 3

Subject D&T

A Good Example (artist and child work)

Unit Overview

To research, design, create and evaluate Roman Shields to look authentic and in the style of an historically accurate Roman Shield.

The Journey-

The children will spend time researching Roman Shields, the materials they used and designs and think of how they could be recreated in the classroom. They will choose an appropriate material to replace the wood and metal the authentic shields would have been created in and create designs similar to traditional Roman Shields or with similar meanings. The children will then use Modroc to create a boss on their shield, draw on their designs and use acrylic paint to finish their design. Children will investigate materials and techniques to attach and handle to the shield and then evaluate each others work using two stars and a wish.

Key Vocabulary/ Knowledge

Modroc

Layer

Plaster

Cast

Acrylic pain

Strokes

Key D&T Skills (from the foundation subject assessment)

Use simple tools with help to prepare food safely.

Use pictures and words to describe what he/she wants to do.

Where do I find these?

NC Objectives

use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups

investigate and analyse a range of existing products

select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately

apply their understanding of how to strengthen, stiffen and reinforce more complex structures

evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

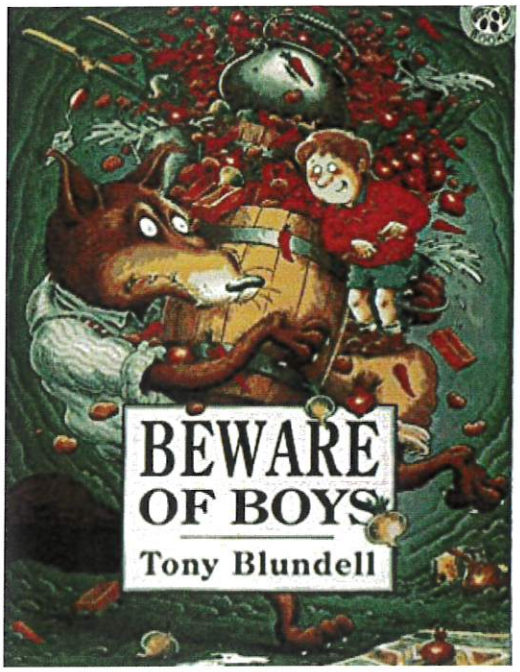
Unit Title:

Sandwiches

Year 3

Subject D&T

A Good Example (artist and child work)



Unit Overview

To understand the need for a balanced, healthy diet and make sensible decisions to create a healthy sandwich. Learn cutting/slicing/spreading skills and how to safely use equipment such as knives.

The Journey-

The children have been learning about instructions in English (using the book 'Beware of Boys' by Tony Blundell) and will use this knowledge to follow and write instructions to create their sandwich. They have also been learning about nutrition and balanced diets in science which will inform their choices of ingredients to create their sandwich. Once ingredients have been chosen and sandwiches designed, the focus will be on cutting skills and kitchen safety and hygiene. We will then evaluate the sandwiches, thinking about taste, ease of eating and whether it fits the brief for a healthy, balanced meal.

Key Vocabulary/ Knowledge

Different types of bread/sandwich fillings

Chop/cut/slice

Mix

Taste

Evaluate

Key D&T Skills (from the foundation subject assessment)

Use simple tools with help to prepare food safely.

Use pictures and words to describe what he/she wants to do.

Where do I find these?

NC Objectives

understand and apply the principles of a healthy and varied diet

prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques

evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

Unit Title:

Shadow Puppets

Year 3

Subject D&T

A Good Example (artist and child work)

Unit Overview

To investigate and evaluate shadow puppets, design and create own to perform a show about 'The Gun Power Plot' and evaluate their effects after use.

The Journey-

The children will hear and watch the story of The Gun Power Plot and learn about the art of shadow puppets. They will explore different options for creating shadow puppets, including moving limbs on puppets. They will perform a 'show' to the rest of the class and evaluate each others work on their effectiveness of materials and joints and give tips and advice on how they could be improved if we were to create them again.

Key Vocabulary/ Knowledge

Shadow

Opaque

Translucent

Transparent

Split pin

Rotate

Mechanism

Key D&T Skills (from the foundation subject assessment)

Use simple tools with help to prepare food safely.

Use pictures and words to describe what he/she wants to do.

Where do I find these?

NC Objectives

use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups

select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately

evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

Unit Title Year 4

Buzz Wire Toy

Subject **CDT**

Unit Overview : The Journey

Pupils have been learning about Electricty / Circuits during their Science lessons. This knowledge will be applied to create a working Buzz Wire Toy.

Pupils will evaluate a bought Buzz Wire Toy. Analysis of materials it is made from, how it works, the theme of the toy, its selling points, how it is joined. Pupils will then design their product, learning how to plan to a simple scale, clearly label their design and show it from different angles. They will follow their design to make their product, choosing materials, tools and joining techniques with care. Finally, they will evaluate how well the product works and make any suggestions for further improvements. .

NC Objectives

Design *Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.

*Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams and prototypes.

Technical Knowledge

*Apply their understanding of how to strengthen, stiffen and reinforce structures
*Understand and use electrical systems in their products. (series circuits incorporating buzzers/ switches and bulbs)

Make

*Select from and use a wider range of tools and equipment to perform practical tasks (cutting/ joining and finishing), accurately.
*Select from and use a wider range of materials and components, including construction materials, textiles according to their functional properties and aesthetic qualities.

Evaluate

*Evaluate their ideas and products against their own criteria and consider the views of others to improve their work.
Evaluate their ideas and products against their own criteria and consider the views of others to improve their work.

cut	glue	join
measure	scale	annotated
prototype	strengthen	stiffen
compo-		

Key Vocabulary

Key Skills

*Generate their own ideas for a Buzz wire toy.
*Use a range of materials to produce a prototype.
*Apply scientific knowledge when choosing materials.
*Apply knowledge of how it works, what features it needs to make it functional/ fit for purpose and what features it needs to make it appealing when designing.
*Present designs in a clear and detailed manner including annotated sketches, cross-sectional and exploded diagrams.
*Cut, join and finish accurately.
*Select appropriate materials for the job.
*Select suitable joining techniques.
*Measure, mark and cut out neatly and accurately.
*Apply science knowledge of circuits to produce a toy that works.
*Evaluate own and others toys against set criteria, suggesting improvements and adapting as go.
*produce a neat, appealing and well thought out toy that is fit for purpose.
*Compare finished product to original design.
*Suggest improvements for future tasks.

Unit Title	Cooking and Nutrition	Year 4
	Soup making	

Subject

CDT

Unit Overview : The Journey

Pupils will taste test and evaluate a range of ready made soups (fresh/ tinned/ powdered) . They will research a wide range of recipes, eventually choosing one to make. A visit to the supermarket will allow seasonal products to be researched, prices to be compared and locality of ingredients to be studied. Pupils will make their own batch of soup which will the be taste tested and evaluated. Links will be made to English where pupils will learn about persuasive techniques to advertise their product.

NC Objectives Design

Design Use research and develop criteria to inform the design so it is appealing and aimed at particular individuals or groups.
Evaluate Investigate and analyse a range of existing products.
Make Select from and use a wider range of tools and equipment to perform practical tasks.
Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
Cooking and Nutrition Understand and apply the principles of a healthy and varied diet.
Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.

Key Vocabulary

chop	grate	simmer
boil	slice	dice
protein	vitamin	carbohy-
fat	sugar	

Key Skills

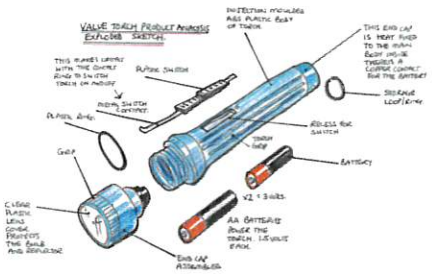
*Use a range of research techniques to find out about soup ingredients.
*Explain the importance of balanced diet and how soup can form part of this.
*Use carefully thought out vocabulary to describe taste/ texture/ appearance/ aroma /nutritional value.
*Use findings to inform planning of own recipes.
*Understand the range of ingredients that can be used in soup. Think about seasons and fresh ingredients available.
*Plan the main stages of a recipe, listing utensils, ingredients and equipment
*Identify range of vegetables and where they have been grown. Local produce?
*Follow a recipe.
*Work collaboratively.
*Understand the importance of hygiene when preparing food.
*Select and use range of kitchen utensils safely. Including knives to chop.
*Use range of cutting/ chopping techniques to prepare range of food products and understand how this can lead to flavour/ texture of finished product.
*Demonstrate understanding of health benefits of ingredients chosen

Unit Title	Year 4	Subject CDT
Lighthouse		

Unit Overview : The Journey

Pupils have been learning about Electricty / Circuits during their Science lessons. This knowledge will be applied to create a working model lighthouse.

Pupils will evaluate a bought torch. Analysis of materials it is made from, how it works, its purpose, its selling points, how it is joined. Pupils will then design their product, learning how to plan to a simple scale, clearly label their design and show it from different angles. They will follow their design to make their product, choosing materials, tools and joining techniques with care. Finally, they will evaluate how well the product works and make any suggestions for further improvements. .



NC Objectives

Design *Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.

*Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams and prototypes.

Technical Knowledge

*Apply their understanding of how to strengthen, stiffen and reinforce structures
*Understand and use electrical systems in their products. (series circuits incorporating buzzers/ switches and bulbs)

Make

*Select from and use a wider range of tools and equipment to perform practical tasks (cutting/ joining and finishing), accurately.
*Select from and use a wider range of materials and components, including construction materials, textiles according to their functional properties and aesthetic qualities.

Evaluate

*Evaluate their ideas and products against their own criteria and consider the views of others to improve their work.
Evaluate their ideas and products against their own criteria and consider the views of others to improve their work.

Key Vocabulary

cut	glue	join
measure	scale	annotated
prototype	strengthen	stiffen
compo-		

Key Skills

*Generate their own ideas for a model lighthouse.
*Use a range of materials to produce a prototype.
*Apply scientific knowledge when choosing materials.
*Apply knowledge of how it works, what features it needs to make it functional/ fit for purpose and what features it needs to make it appealing when designing.
*Present designs in a clear and detailed manner including annotated sketches, cross-sectional and exploded diagrams.
*Cut, join and finish accurately.
*Select appropriate materials for the job.
*Select suitable joining techniques.
*Measure, mark and cut out neatly and accurately.
*Apply science knowledge of circuits to produce a toy that works.
*Evaluate own and others toys against set criteria, suggesting improvements and adapting as go.
*produce a neat, appealing and well thought out model that is fit for purpose.
*Compare finished product to original design.
*Suggest improvements for future tasks.

Unit Title	Year 4	Subject CDT
Shell Structures		

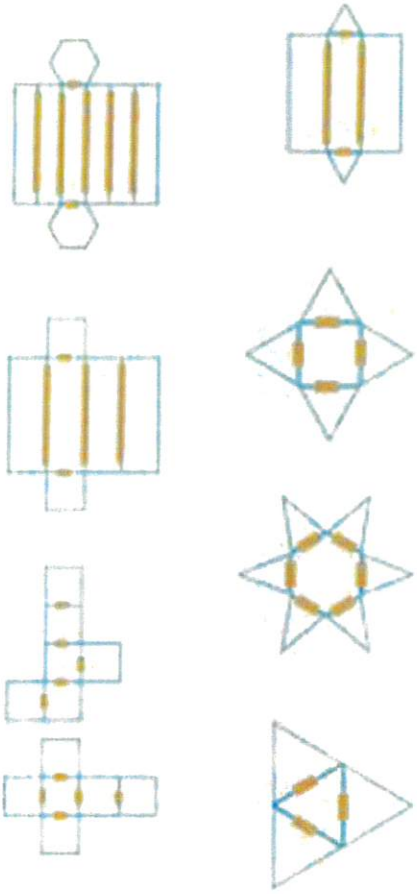
Unit Overview : The Journey

In Year 1 pupils looked at how to use templates and join materials together to make free-standing structures.

In Year 4 they build on this to design, make and evaluate a shell-structure for a model lighthouse. They will study a range of product packaging in order to gather ideas (materials, shapes, design, joining techniques) .

They will use Purple Mash 2DesignandMake to produce a 3d net and will also construct a final design by hand. They will choose appropriate materials and joining techniques to finalise their product, as well as adding windows.

They will produce exploded diagrams and ordered instructions in order that they can construct a successful shell structure.



NC Objectives

Design * use research and develop design criteria to I form the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups

*generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make *select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately

*select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

Evaluate * investigate and analyse a range of existing products

*evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

* understand how key events and individuals in design and technology have helped shape the world

Technical knowledge *apply their understanding of how to strengthen, stiffen and reinforce more complex structures

* apply their understanding of computing to program, *monitor and control* their products

Key Vocabulary

cut	glue	join
measure	net	score
strengthen	stiffen	structure

Key Skills

-*develop ideas through the analysis of existing products.

*investigate and evaluate a range of existing shell structures including materials, components and techniques that have been used.

*develop and use knowledge of nets of cubes and cuboids.

*select and use appropriate tools to measure, mark out, score, shape and assemble with some accuracy.

*develop and use knowledge of how to construct stiff, strong shell structures.

* use Computer generated design to produce nets *Generate realistic ideas and design criteria focussing on product purpose.

*use annotated drawings to show ideas

*order the main stages of making.

*select and use appropriate tools to measure, mark out, score, shape and assemble with some accuracy.

*explain their main choices of materials according to functional properties and aesthetic qualities.

*test and evaluate their own product against the design brief and intended use.

Unit Title: Cookery Year 5

Bread Making: Culture and Seasonality

Subject

CDT

NC Objectives (Year 4) Prior Learning

Soup Making

NC Objectives (Year 5)

Design
Use research and develop criteria to inform the design so it is appealing and aimed at particular individuals or groups.
Cooking and Nutrition
Understand and apply the principles of a healthy and varied diet.
Evaluate
Investigate and analyse a range of existing products.
Literacy: Spoken Lang
Listen and respond appropriately to peers
Use relevant strategies to build up their vocab.
Give well structured descriptions, explanations
Cooking and Nutrition
Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.
Make
Select from and use a wider range of tools and equipment to perform practical tasks.
Cooking and Nutrition
Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
Evaluate
Investigate and analyse a range of existing products.

Unit Overview

Pupils will research breads from around the world. They will compare bread recipes and ingredients.

They will taste test bought breads before creating their own bread recipe which they will then make and taste.

Work will link to Science / irreversible changes and writing instructions in English.

(Fascinating Facts)

Bread remains one of the **UK's** favourite foods, with 99% of households buying **bread** – or the equivalent of nearly 12 million loaves are sold each day.

The most expensive loaf of bread in the UK is made by Hobbs House Bakery in Gloucestershire. It cost £21

Bagel, muffin, focaccia, soda bread, rieska, vanocka, yufka, zopf and brotchen are all types of bread.

Key Knowledge *(incl previous & future learning)*

I know how to describe in detail different tastes / textures / aroma/ appearance of an appealing product

I know that bread is a staple part of people's diets around the world.

I know how yeast works in making bread rise.

I know how to knead, fold and prove the dough,

Key Skills

-to use range of research techniques to find out about bread ingredients.
-build a vocab bank that they can use confidently to describe in detail different tastes / textures / aroma/ appearance of an appealing product.
-follow a recipe
-understand the importance of hygiene when preparing food.
-use kneading and folding techniques.

Key Vocabulary

Knead	dough	yeast	rise
fold	unleaven	gluten	finishing
carbohydrate	hygiene	prove	

Unit Title Year 5

Textiles: Combining Different Fabric Shapes

Subject **CDT**

Unit Overview : The Journey

The mental health and well-being of pupils is key and is dealt with across different subjects and throughout the general school day. Designing and making themselves a worry doll is aimed at giving pupils a new and different strategy to try and help the m cope when they are feeling anxious.

Pupils will evaluate a bought worry monster. Analysis of materials it is made from, how it works, the theme, its selling points, how it is joined. Pupils will then design their product, learning how to create a pattern. They will follow their design and use their pattern to make their product, choosing materials, tools and joining techniques with care. Finally, they will evaluate how well the product works and make any suggestions for further improvements. .

NC Objectives

Design *Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.

*Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams and prototypes.

Make

*Select from and use a wider range of tools and equipment to perform practical tasks (cutting/ joining and finishing), accurately.
*Select from and use a wider range of materials and components, including construction materials, textiles according to their functional properties and aesthetic qualities.

Evaluate

*Evaluate their ideas and products against their own criteria and consider the views of others to improve their work.
Evaluate their ideas and products against their own criteria and consider the views of others to improve their work.

Key Skills

*Generate their own ideas for designing a worry monster.
*Make and use a pattern.
*Apply knowledge when choosing materials / stitches / fastenings.
*Be able to use a range of suitable stitches and choose which to use.
*Be able to thread a needle.
*Present designs in a clear and detailed manner.
*Cut, join and finish accurately using both the right and wrong side of the material.
*Measure, mark and cut out neatly and accurately.
*Evaluate own and others toys against set criteria, suggesting improvements and adapting as go.
*produce a neat, appealing and well thought out worry monster that is fit for purpose.
*Compare finished product to original design.
*Suggest improvements for future tasks.

Key Vocabulary

seam	Seam	Right side
hem	Tacking	pattern
pins	Needles	thread
fastenings	Textile names	Stitch names

Unit Title:

Bridges.

Subject– Year 6

Design and Technology.

NC Objectives

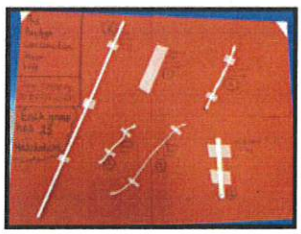
Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment.

Design -use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups □ generate, develop, model and communicate their ideas through discussion, annotated sketches, Make -select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately select from and use a wider range of materials according to their functional properties. Evaluate –evaluate their ideas and products against their own design criteria and consider the views of others to improve their work . Understand how key events and individuals in design and technology have helped shape the world Technical knowledge □ apply their understanding of how to strengthen, stiffen and reinforce more complex structures

Unit Overview

- Children will initially find different types of bridges on maps of Skipton . They will then classify bridges into groups(structure /materials etc) .
- Working in groups children will find out about different types of bridges including truss/ cantilever/ cable stay/ beam/suspension and present PowerPoints to other groups on their bridge type.
- Children will develop skills for building frame structures including: shape/joining/ finishing/cutting / measuring skills, in a skills based lesson
- Working in groups pupils design and make bridges. They will buy the materials they need.
- They will evaluate what they have done when working as a group to then create their own bridge design and model working independently
- Independently pupils will find out about the work of Isambard Kingdom Brunel and the Clifton Suspension Bridge.

A Good Example (artist and child work)



The Journey- (previous learning, curriculum links and journey to the final product).

In year 3 pupils will have had experience of pop up card mechanisms.

In year 4 Buzz wire toys includes electrical components and box structure.

In year 5 pupils have built a cube structure for Cams and Pullies structure and used strengthening techniques.

Key Vocabulary

truss	triangulation
cantilever	horizontal
cable stay	vertical
beam	diagonal
suspension	frame structure
strengthen	
stiffen	
reinforce	

Key Art Skills (from the foundation subject assessments)

Use his/her research into existing products and structure and his/her research to inform the design of their own product including researching into famous designers. * Create his/her ideas and then generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, and pattern pieces. * Apply his/her knowledge of materials and techniques to refine and review his/her product to know how to improve its functional properties and aesthetic qualities. *

Use technical knowledge and accurate skills to problems solve during the making process. * Make detailed evaluations about existing products and their own considering the views of others to improve their work. *

Use a wide range of methods to strengthen, stiffen and reinforce complex 3D structures and use them accurately and appropriately.

Unit Title:

Food– Biscuits.

Subject

Design and

Technology. Year 6

NC Objectives

Cooking and nutrition -

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

Key stage 2 understand and apply the principles of a healthy and varied diet prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques

Unit Overview

- Pupils will initially look at a range fo biscuits on the market and discuss them (look/ fillings/packaging/taste etc).
- Pupils will observe a basic fork biscuit being made and discuss how this can be adapted.
- Pupils plan how to make their own biscuits using the basic for krecipe and adding the own flavours and alternatives.
- Tasting and evaluation of biscuits.
- Maths CC– Working out cost per biscuit./ scaling up and down.
- Pupils to brand and market their biscuits.
- Biscuits to be packaged and sold at Macmillan Coffee Morning.

A Good Example (artist and child work)

The Journey-

(previous learning, curriculum links and journey to the final product).

In year 3 pupils will have had experience of designing and making sandwiches and investigated where food comes from.

In year 4 pupil will make soup– looking at seasonality and developing recipe ideas and food preparation skills.

In year 5 pupils have undertaken a bread topic– combining ingredients and skills such as measuring and kneading.

Key Vocabulary

Rubbing in

Sugar (Brown/demerara/ caster/ granulated)

Margarine/ Butter

Flour (plain Self raising)

Flavour Evaluate

Texture Market

Filling Scale ratio

Decoration

Key Art Skills(from the foundation subject assessments)

Use his/her research into existing products and structure and his/her research to inform the design of their own product including researching into famous designers.

Produce step by step plans to guide his/her making demonstrating that she/she can apply their knowledge of different materials, tools and techniques.

Make detailed evaluations about existing products and their own considering the views of others to improve their work.

Unit Title: Year 6

Moving Vehicles. Frame Structure and electrical circuits.

Subject

Design and

Technology. Year 6

NC Objectives

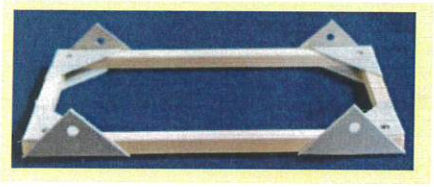
Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment.

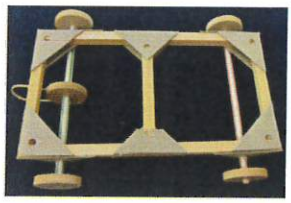
Design -use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups ☐ generate, develop, model and communicate their ideas through discussion, annotated sketches, Make -select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately select from and use a wider range of materials according to their functional properties. Evaluate –evaluate their ideas and products against their own design criteria and consider the views of others to improve their work . Technical knowledge -apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors.

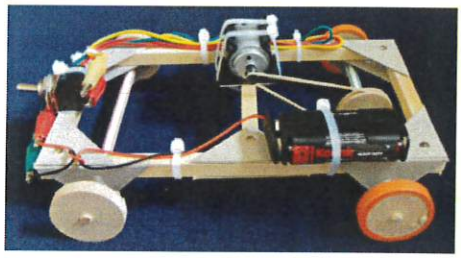
Unit Overview

- Children will initially develop skills necessary for making their moving model framework including accurate measuring /sawing, reinforcing corners.
- Following this pupils will follow instructions to make their frame structure ; using wood, card and glue. Pupils will experiment with wheel size , axils and drive belts
- Pupils will then experiment with, and then make electrical circuits in order to make their vehicle stop and go using a switch mechanism and lights
- Using skills developed in their bridge construction, pupils will use a variety of joining skills to decorate their moving vehicle within the parameters of a given theme. (Pupils will do this initially using a light card prototype before constructing the actual stiffened card frame.

A Good Example (artist and child work)







The Journey- (previous learning, curriculum links and journey to the final product).

In year 3 pupils will have had experience of pop up card mechanisms

In year 4 Buzz wire toys includes electrical components and box structure

In year 5 pupils have built a cube structure for Cams and Pullys structure

Year 6 building on previous learning—Bridges making structures/ electrical circuits (y6) / reinforcement techniques

Key Vocabulary

Switch	diagonal	stability
Circuit	horizontal	prototype
Motor	vertical	annotated sketch
Chassis	triangulation	
Axil	conduction	
Drive belt	prototype	
Mechanical system		

Key Art Skills (from the foundation subject assessments)

Make careful and precise measurements so that joins, holes and openings are in exactly the right place.

Apply his/her knowledge of materials and techniques to refine and review his/her product to know how to improve its functional properties and aesthetic qualities.

Use technical knowledge and accurate skills to problems solve during the making process.

Use a wide range of methods to strengthen, stiffen and reinforce complex 3D structures and use them accurately and appropriately.

Unit Title: Textiles– Focus on Felting projects.

(also integrated in festive art and Charles Rennie Mackintosh project)

Subject

Design and

Technology. Year 6

NC Objectives

Key stage 2 Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment]. Design: , model and communicate their ideas through discussion, annotated sketches, Make select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately select from and use a wider range of materials and components, including materials, and textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

Unit Overview

- Pupils will initially look at examples of different felting products using a range of techniques. (recording work in sketch books)
- They will learn about wet felting and needle felting., and practise both techniques.
- Through making observations of the Dales landscape they will make a part for a whole class wall hanging which depicts the Dales Landscape.
- They will evaluate the whole class project and annotate techniques and features
- They will use the techniques they have learnt, to create Christmas Cards and also to be integrated into their Charles Rennie Mackintosh work.
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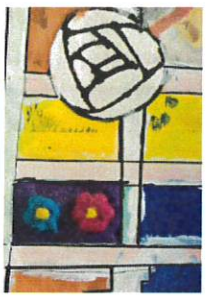
A Good Example (artist and child work)






The Journey- (previous learning, curriculum links and journey to the final product).

Year 3–Sewing– Art with natural materials.

Year 5- Textiles: Basic stitches: Running stitch/back stitch. Topic related products (Eg beanbags- recycling/upcycling)

Key Vocabulary

- Felt
- Fibre
- Yarn
- kneedle
- Lanolin
- Wool
- Landscape
- Abstract

Key Art Skills(from the foundation subject assessments)

Produce step by step plans to guide his/her making demonstrating that she/she can apply their knowledge of different materials, tools and techniques.