

DT ENDPOINTS 2022-2023

By the end of year 1, pupils will know and be able to:

Bridge

- Investigate existing bridges
- Explore joining techniques and materials
- Make a bridge
- Test your bridge
- Evaluate and improve your bridge
- Final evaluation- what make a good bridge?

Moving Pictures

- investigate books with moving pictures
- make a slider and a lever
- design a moving picture
- make a moving picture including attaching picture to slider or lever, inserting strip into slot and attaching bridge or split pin

Preparing fruit and vegetables

- Investigate fruit and decide which I want to put in a fruit salad.
- Practise different food processing skills.
- Design my own fruit salad.
- Make a fruit salad.

By the end of year 2, pupils will know and be able to:

Fruit kebabs

- Know that food comes from plants or animals
- Evaluate products
- Understand and use basic principles of food hygiene
- Design a fruit kebab
- Practise food processing skills
- Make a fruit kebab following a plan
- Evaluate their finished product

Puppets

- Know about the entertainment available at the seaside.
- Research different types of puppets
- Investigate different types of puppets
- Evaluate different types of puppets
- Design a glove puppet
- Sew a glove puppet
- Decorate a glove puppet
- Write a play considering the use of puppets
- Act out a play using the completed puppets

Wheels and Axels

- Understand how wheeled vehicles work.
- Use construction kits to investigate wheeled vehicles.
- Make base vehicle.
- Design wheeled vehicle of their choice.
- Make their product.
- Evaluate the completed vehicles.

By the end of year 3, pupils will know and be able to:

Card

Evaluate Easter cards.
Investigate different levers.
Create initial design ideas for an Easter card.
Create a final design.
Create a card with a mechanical system.
Use our neatest handwriting.
Evaluate your Easter card.

Photo frames

Evaluate existing designs.
Investigate structures
Create initial designs.
Create a final design.
Implement their prior learning about stiffness and stability into their design proposals.
Work on their own on projects in two and three dimensions.
Evaluate their product against their original design criteria.

Sandwiches

Create initial designs considering fillings, combination of fillings, things not in a sandwich and who might you make it for.
Create a final design including presentation of design.
Develop instructions for making the sandwich.
Make the sandwich following own instructions.
Evaluate the final design in terms of crunchiness, shape, size, texture, filling bread, healthiness, tastiness.

By the end of year 4, pupils will know and be able to:

Stockings

- design their stocking
- create and draw their final design
- investigate different ways to join the stockings together
- make their stockings
- evaluate their product

Biscuits

- test and evaluate biscuits.
 - *that there is a variety of shortbread products made in different ways*
 - *to investigate and evaluate shortbread products according to their characteristics*
 - *to use an appropriate vocabulary to describe shortbread products*
- design labels and packaging
- practise skills required for making shortbread
 - *to follow instructions*
 - *to weigh and measure accurately (time, dry ingredients, liquids)*
 - *skills in using different tools and equipment*
 - *that ingredients have different characteristics*
 - *that the proportion of ingredients will affect the product*
 - *how to work safely and hygienically*
- write a set of instructions
- practise skills required for making shortbread
 - *to follow instructions*
 - *to weigh and measure accurately (time, dry ingredients, liquids)*
 - *skills in using different tools and equipment*
 - *that ingredients have different characteristics*
 - *that the proportion of ingredients will affect the product*
 - *how to work safely and hygienically*
- follow the children's designs to create packaging
- evaluate product
 - *to evaluate a product against the original design specification*
- investigate the shortbread making process
 - *compare the processes involved in making shortbread products – commercial and domestic*
 - *evaluate the health implications of ingredients*
 - *make choices about our own ingredients*

Night lights

- Understand the need for different forms of lighting, in particular night lights.
- Explore a range of products which incorporate lighting in some form or another.
- Research different types of nightlights and use the findings to assist in the design of a night light to be made in school to focus on the features, design and workings of a nightlight.
- Practise making a range of switches including push-to-make, toggle and rotating. Test the functionality of each switch in a circuit to control a bulb.
- Write instructions for how to make their switches.
- Plan and sketch a nightlight design in response to the design brief. To include a circuit and materials needed.
- Learn how to control simple devices such as bulbs using Flowol. To learn how to control devices by turning them on and off according to a sequence of instructions.
- Make a nightlight using card tube, small boxes, base board, papier-mâché, wire e.g. include working a circuit inside the nightlight and to modify as required.
- Evaluate the final product and to suggest alternative solutions where necessary

By the end of year 5, pupils will know and be able to:

Bread

- investigate and evaluate bread products according to their characteristics
- use an appropriate vocabulary to describe bread products
- weigh and measure accurately (time, dry ingredients, liquids)
- that the proportion of ingredients will affect the product
- evaluate different bread flours.
- use results of investigations when developing design ideas.
- use a specification to clarify ideas
- plan my bread product in detail
- write instructions to make my bread product
- design a poster and packaging.
- make my bread product.
- apply the rules for basic food hygiene and other safe practices *eg hazards relating to the use of ovens*
- evaluate a product against the original design specification
- investigate the contribution of a famous chef/baker.

Bridges

- explore ways in which pillars and beams are used to span gaps.
- explore ways in which trusses can be used to strengthen bridges
- explore ways in which arches are used to strengthen bridges.
- understand how suspension bridges are able to span long distances.
- develop criteria and design a prototype bridge for a purpose.
- analyse and evaluate products according to design criteria.

Cams

- identify the cam within a mechanism.
- notice how it changes movement.
- recognise the role of a cam and its follower in a mechanism and how cams produce movement.
- measure and mark out accurately to use tools for cutting safely and effectively
- test out their design ideas before proceeding
- test the mechanisms and make adjustments where necessary
- consider the characteristics of the cam mechanism when designing the moving part of their toy
- cut and join with accuracy to ensure a good-quality finish to the product
- understand how key events and individuals in design and technology have helped shape the world

By the end of year 6, pupils will know and be able to:

Cushions

- Test and evaluate existing products considering key features, who are they for, strengths and weaknesses and purpose
- Design a cushion considering what a cushion needs in order to be successful and thinking about
 - its purpose
 - durability
 - does it need to be eye-catching
 - additional resources
 - materials
- Finalise design considering fabric, thread, stitches, size, shape and decoration.
- Make the cushion considering
 - create the template for the shape of your cushion.
 - cutting the fabric (both sides/pieces).
 - templates for your decorative pieces of fabric.
 - cut out your decorative fabric.
 - sewing the decor onto one side of the cushion.
 - sewing three sides of the cushion together.
 - placing filling inside the cushion.
 - sewing the final side of the cushion together.
- Evaluate a cushion
- Does it meet / doesn't meet design brief/criteria because...
 - If I am to make another cushion in the future I would change/alter...
 - In my opinion cushion has been successful because...

Soup

- Analyse soup adverts and recipes
 - Watch the adverts. What do they tell you about soup?
 - How does the advert persuade people to buy it?
- Investigate soup recipes
 - What steps are required to make soup? What order are they in?
 - Ingredients?
 - Quantities?
 - Flavour combinations?
 - Smooth/Chunky?
 - Timings?
- Taste existing soups
 - Which soup(s) do you most like?
 - What flavours and ingredients do they contain?
 - Which vegetables/herbs taste/smell the best to you?
 - Which ingredients appeal most to you?
 - What types of savoury flavours do you normally like that might fit with a soup?
 - Do you already have a favourite soup?
- Chop and preparing vegetables.
 - Size - smaller/larger
 - Shape - chunks/batons
- Design soup
 - Generate initial ideas of vegetable combinations.
 - Discuss combinations in your group, develop/select an idea for your final vegetable combination.
 - Final soup design - vegetables, other ingredients, quantities, seasoning/herbs (dried/fresh), smooth/chunky, stock
- Evaluate different soups