



The BIG Picture

A developing understanding of healthy, nutritional food, coupled with improving preparation skills has brought our children to this point. In this design and make unit they will learn the magic of seasonality, both in terms of ensuring a pleasing product but also in terms of the positive impact environmentally.

What do we already know? What can we already do?

Our children are building on learning from Year 2's unit, A Balanced Diet, in which they learnt of food groups and used their senses to design and make a tasty, healthy wrap.

Key vocabulary & understanding:

- Climate
- Dry climate
- Exported
- Imported
- Mediterranean climate
- Nationality
- Nutrients
- Polar climate
- Recipe
- Seasonal food
- Seasons
- Temperate climate
- Tropical climate

NC Objectives- Key Stage Pupils should be taught:

- \* 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 wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics
- \* Understand and apply principles of a healthy and varied diet
- \* Prepare and cook variety of predominantly savoury dishes using a range of cooking techniques
- \* Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed

Specific unit outcomes

- Explain that fruits and vegetables grow in different countries based on their climates.
- Understand that 'seasonal' fruits and vegetables are those that grow in a given season and taste best then.
- Know that eating seasonal fruit and vegetables has a positive effect on the environment.
- Design their own tart recipe using seasonal ingredients.
- Understand the basic rules of food hygiene and safety.
- Follow the instructions within a recipe.

Key Skills

- Creating a healthy and nutritious recipe for a savoury tart using seasonal ingredients, considering the taste, texture, smell and appearance of the dish.
- Knowing how to prepare themselves and a workspace to cook safely in, learning the basic rules to avoid food contamination.
- Following the instructions within a recipe.
- Establishing and using design criteria to help test and review dishes.
- Describing the benefits of seasonal fruits and vegetables and the impact on the environment.
- Suggesting points for improvement when making a seasonal tart.

Key Knowledge

- To know that not all fruits and vegetables can be grown in the UK.
- To know that climate affects food growth. To know that vegetables and fruit grow in certain seasons.
- To know that cooking instructions are known as a 'recipe'.
- To know that imported food is food that has been brought into the country.
- To know that exported food is food that has been sent to another country.
- To understand that imported foods travel from far away and this can negatively impact the environment. To know that each fruit and vegetable gives us nutritional benefits because they contain vitamins, minerals and fibre.
- To understand that vitamins, minerals and fibre are important for energy, growth and maintaining health. To know safety rules for using, storing and cleaning a knife safely.
- To know that similar coloured fruits and vegetables often have similar nutritional benefits.

Key Questions

- What is meant by diet?
- What are nutrients?
- What do we call cooking instructions?
- What is meant by seasonal food?





The BIG Picture

This unit of study develops the idea of the children creating a purposeful and pleasing product. This castle will be strong and look realistic, a vital combination to reflect the progress of the DT student but also in the mind of the child who likes to use and play with their creation.

NC Objectives- Key Stage  
Pupils should be taught:

- \* 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, prototypes, pattern pieces and computer-aided design
- \* 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 wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics
- \* 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
- \* Apply their understanding of how to strengthen, stiffen and reinforce more complex structures

Key Questions

How is man-made different to natural?  
What is a net of a shape.  
What does it mean to score card?  
What is stability?

What do we already know? What can we already do?

This unit builds on the learning the children engaged in with the Year 2 project, Baby Bear's Chair. Here the children investigated stability and structure by rolling and fixing paper to make a strong chair.

**Specific unit outcomes**

- Draw and label a simple castle that includes the most common features.
- Recognise that a castle is made up of multiple 3D shapes.
- Design a castle with key features which satisfy a given purpose.
- Score or cut along lines on the net of a 2D shape.
- Use glue to securely assemble geometric shapes.
- Utilise skills to build a complex structure from simple geometric shapes.
- Evaluate their work by answering simple questions.



Key Skills

- Designing a castle with key features to appeal to a specific person/purpose.
- Drawing and labelling a castle design using 2D shapes.
- Designing and/or decorating a castle tower on CAD software.
- Constructing a range of 3D geometric shapes using nets.
- Creating special features for individual designs.
- Making facades from a range of recycled materials.
- Evaluating own work and the work of others based on the aesthetic of the finished product and in comparison to the original design.
- Suggesting points for modification of the individual designs.

Key Knowledge

- To understand that wide and flat based objects are more stable.
- To understand the importance of strength and stiffness in structures.
- To know the following features of a castle: flags, towers, battlements, turrets, curtain walls, moat, drawbridge and gatehouse – and their purpose.
- To know that a façade is the front of a structure.
- To understand that a castle needed to be strong and stable to withstand enemy attack.
- To know that a paper net is a flat 2D shape that can become a 3D shape once assembled. To know that a design specification is a list of success criteria for a product.

Key vocabulary & understanding:

- 2D shapes
- 3D shapes
- Castle
- Design criteria
- Evaluate
- Facade
- Feature
- Flag
- Net
- Recyclable
- Scoring
- Stable
- Strong
- Structure
- Tab
- Weak

Links with computing:

Using powerpoint to create their own net (extension activity).



### The BIG Picture

This unit of study introduces our children to the important life-skill of sewing. Building on simpler joining methods, they now learn to use stitches in the creation of a product they can be proud of, a cushion to place on the bed or the couch at home.

### NC Objectives- Key Stage

Pupils should be taught:

- \* 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, prototypes, pattern pieces and computer- aided design
- \* 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 wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics
- \* Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

### Key Questions

What do we mean by joining technique.  
What is appliqué?  
What is running stitch / cross stitch?  
What is accurate?

### What do we already know? What can we already do?

Our children begin learning knowledge and skills related to textiles during Year 1 with their design and make project, puppets. Here the children use a template before either pinning, stapling or gluing the pieces together to form a glove puppet.

### Specific unit outcomes

Use a cross-stitch to join two pieces of fabric together.

Design and cut the template for a cushion.

Use cross-stitch and appliqué to decorate a cushion face.

Make a cushion that includes appliqué and cross-stitch.

### Key Skills

Designing and making a template from an existing cushion and applying individual design criteria.  
Following design criteria to create a cushion.  
Selecting and cutting fabrics with ease using fabric scissors.  
Threading needles with greater independence.  
Tying knots with greater independence.  
Sewing cross stitch to join fabric.  
Decorating fabric using appliqué.  
Completing design ideas with stuffing and sewing the edges.  
Evaluating an end product and thinking of other ways in which to create similar items.

### Key Knowledge

To know that appliqué is a way of mending or decorating a textile by applying smaller pieces of fabric.

To know that when two edges of fabric have been joined together it is called a seam.

To know that it is important to leave space on the fabric for the seam.

To understand that some products are turned inside out after sewing so the stitching is hidden

### Key vocabulary & understanding:

appliqué  
cross-stitch  
design  
equipment  
fabric  
patch  
running stitch  
thread  
seam  
texture  
knot

