

Cycle A Autumn Term

Long-term overview for Design Technology

Year 5/6

How can we prepare the equivalent of a Sunday lunch for a small group of adults?

Research to find out exactly what a Sunday lunch is made up of

Cost out the ingredients and make a list before shopping

Create invitations and a menu for guests

Make the lunch, recognising the order in which elements need to be prepared and cooked so that everything comes together

Evaluate the lunch, taking account of what the guests said

Designing

- Competently research what a Sunday lunch means to some older people.
- Cost out ingredients and take this into account when designing the meal.
- Produce a detailed, step-by-step plan of how to prepare the meal.

Making

- Confidently select appropriate utensils, pans, etc. and use them efficiently.
- Know how to use any required utensil correctly and safely.
- Explain why a specific utensil is best for a specific action.
- Make modifications as they go along and explain their reasons.

Evaluating

- Test and evaluate the lunch with specific guests where possible.
- Evaluate the lunch against clear criteria.
- Evaluate their working methods during and at the end of the assignment.
- Record their evaluations using graphs.

Food Technology

- Explain how food ingredients should be stored and give reasons.
- Work within a budget to create the meal.
- Understand the difference between a savoury and a sweet dish.
- Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically, including the use of a heat source, where appropriate.
- Know that different foods and drinks contain substances – nutrients, water and fibre – needed for good health.

Cycle A Spring Term

Long-term overview for Design Technology

Year 5/6

How can we create a structure out of recycled materials which could become a landmark reflecting an aspect of European life?

Know enough about European landmarks and lifestyle to create a structure to represent it

Create initial designs of different ideas for discussion

Listen to views of others before deciding on the final idea

Use a range of materials (from waste materials) to make the structure

Evaluate the final structure and explain what it represents and where it would be placed

Designing

- Competently research products similar to the one they intend to create and evaluate strengths and weaknesses to be considered when thinking about their design.
- Research and use ICT (Google or similar) where appropriate.
- Design, with a range of initial ideas, after collecting information from investigating existing products.
- With growing confidence, apply various finishing techniques, including those from art and design.

Making

- 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.
- Use finishing techniques to strengthen and improve the appearance of their products using a range of equipment, including ICT.
- Make a prototype before making a final version.
- Carry out finishing techniques (including lights) to enhance the appearance and function of their product.

Evaluating

- Suggest alternative plans, outlining the positive features and drawbacks.
- Evaluate appearance and function against the original criteria.
- Begin to evaluate their product personally and seek evaluation from others.

Technical Knowledge

- Know when the use of IT would enhance a product being designed and made.
- Know how to use pneumatics as part of a product being designed and made.
- Create a product that incorporates gears.

Cycle A Summer Term

Long-term overview for Design Technology

Year 5/6

How can we create a textile product which tells a story and incorporates fabric sewn onto fabric (applique)?

Know enough about the Bayeux tapestry to gain a good insight into what is required

Create initial designs of an aspect of history studied that can be recreated using different fabrics

Consider the views of others before proceeding to the making stage

Use a range of stitching techniques, including applique, to create the end product

Evaluate the final product, taking account of the original design and explain where variations have occurred

Designing

- Competently research the Bayeux Tapestry to gain ideas linked to the intended design and evaluate strengths and weaknesses to be considered when thinking about their design.
- Research and use ICT where appropriate.
- Produce a detailed, step-by-step plan.
- Explain how a product will appeal to a specific audience and how it meets the purpose.
- With growing confidence, apply various finishing techniques, including those from art and design.
- Start to appreciate how much products cost to make.

Making

- Select appropriate materials, tools and techniques (e.g. cutting, shaping, joining and finishing) accurately.
- Select from and use a wider range of materials and components, including textiles, according to their functional properties and aesthetic qualities.
- Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment.
- Make a prototype before making a final version.
- Carry out finishing techniques to enhance the appearance and function of their product.

Evaluating

- Suggest alternative plans; outlining the positive features and drawbacks.
- Evaluate appearance and function against the original criteria.
- Begin to evaluate their product personally and seek evaluation from others.

Technical Knowledge

- Use a range of sewing techniques, including applique and various stitches.

Cycle B Autumn Term

Long-term overview for Design Technology

Year 5/6

How can we source ingredients for and make a fruit crumble?

Know which ingredients are needed to make a fruit crumble

Cost and buy the ingredients needed

Measure accurately and work hygienically

Make the crumble, working safely

Evaluate the quality of the crumble, assessing cost as well as taste

Designing

- Competently research the ingredients needed for a crumble.
- Produce a detailed, step-by-step plan to source the ingredients, including costings.
- Start to appreciate how much the crumble will cost to make.

Making

- Name and use a range of utensils competently.
- Select appropriate utensils and measures accurately.

Evaluating

- Evaluate the crumble against the original design specifications including by checking the taste.
- Evaluate its appearance against the original criteria.

Food Technology

- Be both hygienic and safe in the kitchen.
- Know how to prepare a meal by collecting the ingredients in the first place.
- Weigh and measure accurately (timings, dry ingredients and liquids).
- Understand how food is processed into ingredients that can be eaten or used in cooking.
- Begin to understand that different foods and drinks contain different substances – nutrients, water and fibre – needed for good health.

Cycle B Spring Term

Long-term overview for Design Technology

Year 5/6

How can we create a vehicle capable of moving over different terrains incorporating more than one mechanical system?

Know about different terrains, including moon surface

Create initial design taking account of mechanisms that are familiar to you

Take time to ensure that the vehicle is capable for moving over different surfaces

Make the vehicle, that incorporates more than one mechanism

Evaluate the vehicle against original ideas and seek views of others about its success

Designing

- When researching, competently discriminate between what would be and would not be helpful for their intended product.
- Use market research of existing products to inform their design.
- Follow and refine original plans, justifying them in a convincing way.
- Draw detailed 3D designs using exploded diagrams or cross-sectional drawings, where appropriate, to display finer details.
- Know how much products cost and make choices accordingly.

Making

- Confidently select appropriate tools, materials, components and techniques and use them efficiently.
- Explain why a specific tool is best for a specific action.
- Make modifications as they go along and explain their reasons.
- Construct their product using permanent joining techniques.
- Use mechanical systems such as levers, pulleys and gears competently to enable movement in their product.
- Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment, including ICT.

Evaluating

- Test and evaluate their designed product with a specific audience where possible.
- Evaluate the product against clear criteria.
- Evaluate their work both during and at the end of the assignment.
- Record their evaluations using drawings with labels.

Technical Knowledge

- Know which IT element would further enhance the product.
- Use their knowledge to improve the product by strengthening, stiffening or reinforcing.
- Know when the product they have made can be improved by using pulleys, levers or gears.

Cycle B Summer Term

Long-term overview for Design Technology

Year 5/6

How can we create a camouflaged nomadic tent that would be suitable for a desert?

Know what nomadic desert tents look like and appreciate how they are made

Create an initial design taking account of both structure and design of the fabric used

Create a stable structure capable of withstanding strong winds

Create a camouflaged design for the fabric part of the tent

Evaluate the tent taking account of both structure and camouflaged textile

Designing

- When researching, be competent in discriminating about what would be and would not be helpful for their intended product.
- Follow and refine original plans, justifying them in a convincing way.
- Draw detailed 3D designs using exploded diagrams or cross-sectional drawings where appropriate to display finer details.
- Show that culture and society are considered in plans and design specifications.

Making

- Confidently select appropriate tools, materials, components and techniques and use them efficiently.
- Explain why a specific tool is best for a specific action.
- Make modifications as they go along and explain their reasons.
- Construct the product using permanent joining techniques.
- Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment.
- Pin, sew and stitch materials together to create the product.

Evaluating

- Test and evaluate the designed product with a specific audience where possible.
- Evaluate the product against clear criteria.
- Evaluate their work during and at the end of the assignment.
- Record their evaluations using drawings with labels.

Technical Knowledge

- Use their knowledge to improve the made product by strengthening, stiffening or reinforcing.
- Use a range of sewing techniques to improve the made product.