

Year 7 Design & Technology

Steady Hand Game

Start
of
Term

1. Health and safety rules in the workshop: You will learn how to keep yourself and others safe in the workshop.

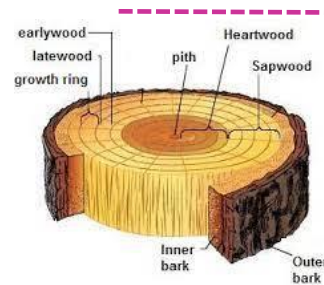
2. Introduction to the design process: You will learn why we use an iterative design approach.

3. Writing a specification: You will learn how to write a specification with appropriate justifications

4. Designing: You will produce design ideas and develop a final design.

5. Making: You will learn how to mark out, cut and assemble the base of the game. You will also learn how to use tools safely and skilfully.

6. Wood Theory: Sources of timber (wood). You will learn about hardwoods, softwoods and manufactured boards.

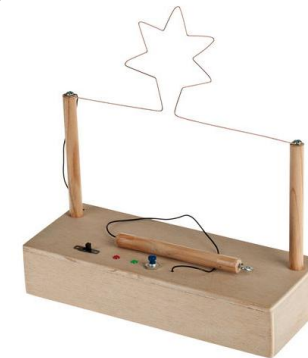


10. Testing and evaluating: You will test how effective the game is and describe how well it has been made.

9. Making : You will solder the circuit for the game, bend the wire and assemble the game.

11. End of project test.

End
of
Term



Year 7 Design & Technology

Float a Boat

Start
of
Term

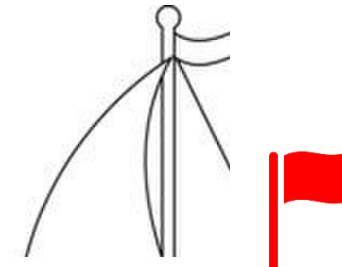
1. Health and safety in the workshop: You will learn how to keep yourself and others safe.

2. Introduction to the design process: You will learn why we use an iterative design approach.

3. Writing a specification: You will learn how to write a specification with appropriate justifications

4. Designing: You will produce design ideas and develop a final design.

5. Making: You will learn about marking out using a template, cutting and shaping the hull of the boat. Cutting out the masts



End
of
Term

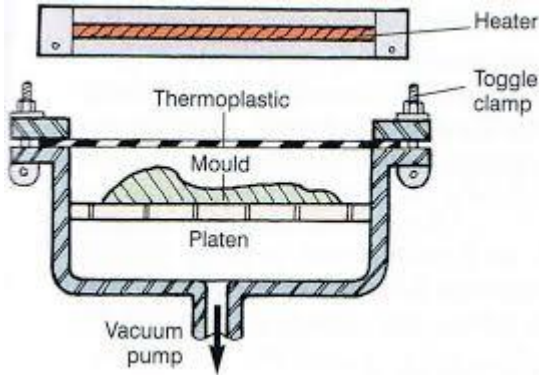
6. Measuring: You will learn about converting units and the importance of accuracy to the nearest mm when making.

10. Evaluating: You will describe how effectively the boat sailed and how could it be improved.

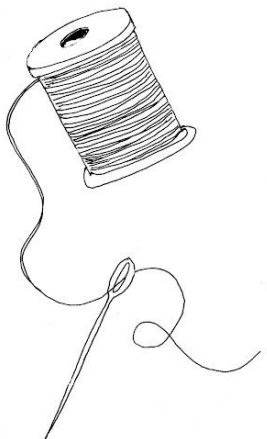
11. End of project test.

9. Racing: You will race your boat against your classmates.

7. Vacuum Forming: You will vacuum form the hull of the boat.



8. Sewing: You will learn how to sew by hand safely and effectively.



1. Hygiene and safety in the kitchen: You will learn how to keep yourself and others safe. You will also learn about hazards in the kitchen, names at the uses of equipment and how to carry out sensory analysis of dishes.

2. Acquire and demonstrate knife skills and using small equipment to prepare and make a deli salad. Acquire and demonstrate the principles of food hygiene and safety focusing on knives, grater, peeler and other small pieces of equipment.



3. Describe the principles of the Eatwell guide and relate to your own diet. Name the keys nutrients provided by /the Eatwell guide food groups. Explain and apply the 8 tips for healthy eating, the 5 A Day message and portion size.



4. To acquire and demonstrate knife skills and using hob (frying, boiling, simmering) to prepare and cook a vegetable soup. Investigate and evaluate the effects of cooking vegetables.



5. Explain where potatoes, bread, rice, pasta and other starchy carbohydrates come from and why they are important in the diet. Discuss energy and energy balance, identifying how lifestyle and culture can affect food choice.

6. Acquire and demonstrate weighing and measuring, grating, nice skills, rubbing -in, mixing and stirring, assembling and layering and use of the oven (baking) to prepare and cook a crumble. Calculate the cost of the crumble.

13. Investigate some of the factors that affect food choice. Investigate ways in which food can be made appetising, including seasoning, flavouring, visual appearance, presentation.

End of Term

14. Acquire and demonstrate knife skills, mixing, using the hob (stir frying, boiling and simmering) and draining to prepare and cook a stir fry. Acquire and demonstrate the principles of food hygiene and safety, focusing on using knives, handling raw poultry (if using), the hob, draining. To calculate the energy and nutrients provided by the dish.

15. Appraise and evaluate the learning journey. Evaluate practical cooking experiences

12. To acquire and demonstrate weighing and measuring, peeling, grating, mixing, folding, dividing and using the oven to prepare and cook breakfast muffins. Acquire and demonstrate the principles of food hygiene and safety, focusing on knives, grater, handling eggs and the oven.

7. Explain where dairy and alternatives come from and how consumer demand influences availability, eg lower fat products. Compare and evaluate a range of dairy and alternative products using food labels and sensory evaluation.



8. Acquire and demonstrate weighing, measuring, grating, slicing, spreading and using the grill to prepare and make pitta pizza. Acquire and demonstrate the principles of food hygiene and safety focusing on knives, grater and grill. Compare the ingredients, cost and portion size of their pizza with restaurant / takeaway pizza.



9. Explain where beans, pulses, fish, eggs, meat and other proteins come from and their importance in the diet. List food choices available for Vegetarians and explain how their dietary needs are met.

10. Acquire and demonstrate knife skills using small equipment, portioning and dividing, coating and using the oven (baking) to prepare and cook lemon and herb goujons / spicy bean burgers. Acquire and demonstrate the principles of food hygiene and safety, focusing on knife skills, handling and cooking fish and using the oven.

11. Perform a simple product analysis, including an overview of the properties of the ingredients and sensory evaluation. Investigate ways in which recipes can be modified. Develop a recipe for fruit or savoury breakfast muffin.

Start of Term

Year 8 Design & Technology Ball Bearing Game



Start
of
Term

2. Introduction to the design brief and the knowledge you will need to address it.

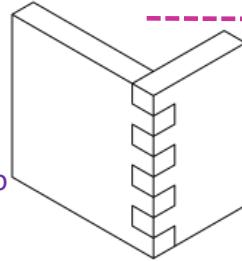
3. Plastics theory: You will learn about the categorisation of plastics as either thermosetting or thermoforming plastics.

4. Plastics sustainability: You will learn about the 6Rs of sustainability and the implications of using plastics on the environment.

5. Writing a specification: You will write a specification with appropriate justifications

6. Designing: You will produce design ideas and develop a final design using feedback from users..

1. Health and safety: You will be reminded how to keep yourself and others safe in the workshop. You will also learn how to use a buffing machine safely.



7. Making: You will learn how to mark out, cut comb joints. You will also learn how to use tools safely and skilfully.

8. Joining materials with screws: You will learn how to join materials using countersunk screws.

9. Adhesives: You will learn how to use contact adhesives and acrylic cement.

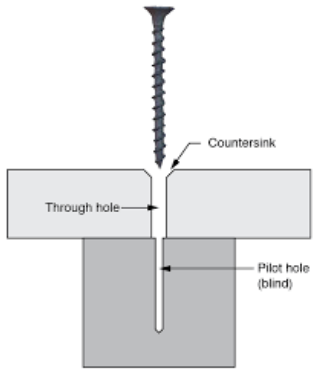
11. Testing and evaluating: You will test how effective the game is and describe how well it has been made.



End
of
Term

10. Making : You will assemble your game using adhesives and temporary fixings.

12. End of project test.



Year 8 Design & Technology

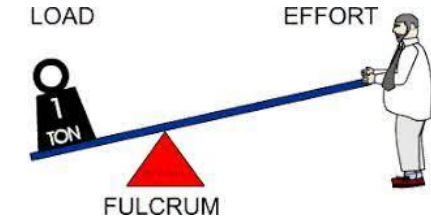
Mechanical Toy

Start
of
Term

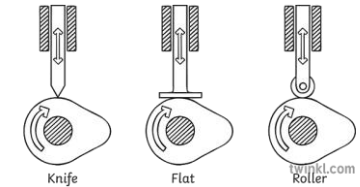
2. Introduction to the project and the subject of mechanisms.

3. Types of motion: You will learn the meaning of rotary, linear, oscillating and reciprocating motion.

4. Levers: You will learn about levers and mechanical advantage.



5. You will learn how cams and followers work and how they can be used to change rotary motion into oscillating and reciprocating motion



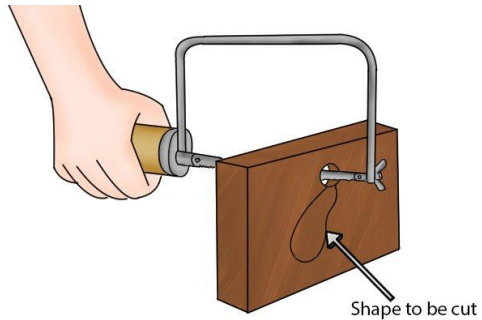
End
of
Term

1. Health and safety: You will be reminded how to keep yourself and others safe in the workshop.

7. Designing: You will produce design ideas and develop a final design using feedback from users..

6. Writing a specification: You will write a specification with appropriate justifications

8. Making: You will use templates to mark out parts of the toy and will learn how to use tools safely, accurately and skilfully.



10. Testing and evaluating: You will test how effective the toy is and describe how well it has been made.

9. Making : You will cut out and shape parts of the toy and assemble your game using adhesives and double sided tape.

11. End of project test.

Year 8 Design & Technology Food Technology



3. Describe energy and explain why it is needed. Identify sources of energy in the diet. Describe how energy needs change throughout life. Define energy balance and relate the consequences of imbalance.

2. 4. Develop and demonstrate measuring, knife skills, grating, cake making and using the oven (baking) to prepare and cook mini carrot cakes.. Develop and demonstrate the principles of food hygiene and safety, focusing on handling eggs, using small pieces of equipment and the hob /oven. Calculate the nutritional content information for a recipe and create a food label for a dish.

MED	LOW	MED	HIGH	MED
Calories	Sugar	Fat	Sat Fat	Salt
353	0.9g	20.3g	10.8g	1.1g
18%	1%	29%	54%	18%

5. Explain the sources, types and functions of protein. Describe the dietary recommendations for protein and how it relates to their diet.

12. Describe the functions of ingredients used in bread making. To identify varieties of bread products available to the consumer. Explain the sources, types and functions of carbohydrates. Describe the dietary recommendations for carbohydrate and how it relates to the diet.



14. Develop and demonstrate knife skills, forming, kneading and shaping a yeast dough and using the oven(baking) to prepare and pizza pinwheels. Develop and demonstrate the principles of food hygiene and safety, focusing on handling a dough using knives and the oven. Modify a recipe to create a healthier option.

15. Plan and create a recipe for a healthier main meal to be served at a leisure venue. Investigate the availability, benefits and drawbacks of locally or regionally sourced food/dishes and /or ingredients.

16. Appraise and evaluate your learning journey. Evaluate practical cooking experiences.



2. Develop and demonstrate measuring, knife skills and using the hob (boiling and simmering) to prepare and cook savoury rice. Develop and demonstrate the principles of food hygiene and safety, focusing on rice, using knives and the hob.

6. Develop and demonstrate knife skills, grating and using the oven(baking) to prepare and cook frittata. Develop and demonstrate the principles of food hygiene and safety, focusing on handling eggs using knives, grating and the hob. Describe the function of eggs in cooking.

11. Develop and demonstrate measuring, knife skills and using the hob (frying, boiling and simmering) to prepare and cook chilli con carne. Develop and demonstrate the principles of food hygiene and safety, focusing on handling and cooking raw meat, using knives and the hob.

7. Develop and demonstrate knife skills, rubbing-in, forming and shaping a dough and using the oven(baking) to prepare and cook fruit scones. Develop and demonstrate the principles of food hygiene and safety, focusing on handling eggs using knives and the hob. Explain the term 'seasonality' and how to reduce the waste of fruit, vegetables and bread in the home and at school.

8. Name the key micronutrients and stay why they are needed in the diet. Explain the sources, types and functions of Vitamins A, D B group and C. Explain the sources, types and functions of Calcium, Iron and sodium.

9. Develop and demonstrate knife skills, using the hob (boiling and simmering)the all in one sauce method and using the grill to prepare and cook tuna pasta bake. Develop and demonstrate the principles of food hygiene and safety, focusing on using knives, draining boiling water and the grill. Calculate the nutritional profile and compare the effect of using alternative ingredients.

10. Identify and explain the factors that affect individual food choice. Investigate the dietary needs of young people. To consider ways recipes can be modified to meet the nutritional needs of young people.



Year 9 Design & Technology Robotics & CAD

Start
of
Term

Logo design: You will learn what makes an effective logo

Colour association: You will learn how colour is used to convey different

Packaging purposes: You will learn about the various functions of packaging.



CAD: You will learn what the advantages of CAD (computer aided design) are.

Package design: You will learn how to use 2D design and use it to draw a package for a mobile phone.

2D DESIGN

End
of
Term

Design brief: You will be given the task of designing packaging for a mobile phone.

You will use coding to control the robots.



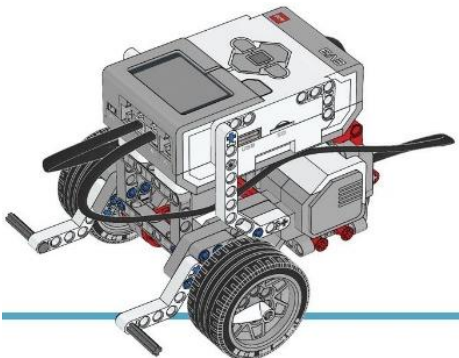
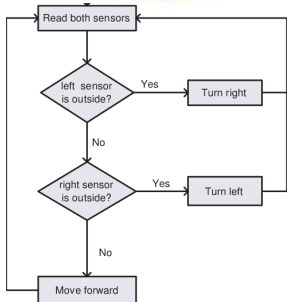
You will build robots using Lego Mindstorms and carry out test runs.

You will gain an understanding of how to use routines to control outputs.



You will carry out a range of tests with the robots and evaluate the effectiveness of your coding.

12. End of project test.



Year 9 Design & Technology Desk Organiser

Start
of
Term

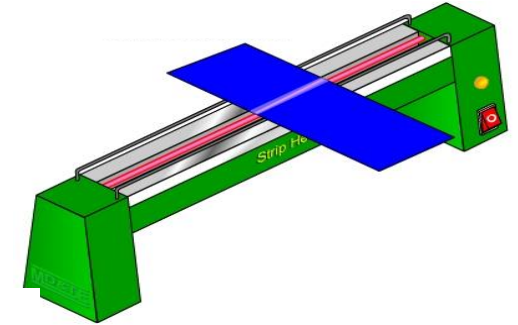
2. Introduction to the design brief and the knowledge you will need to address it.

3. Plastics theory: You will classify plastics as either thermoforming or thermosetting and identify uses for different plastics.

4. Metals theory: You will learn about ferrous and non-ferrous metals. You will also identify uses of different metals.



5. Line bending: You will learn how a strip heater can be used to bend thermoforming plastics.



6. Scales of manufacture: You will learn about one-off, batch, mass and continuous production

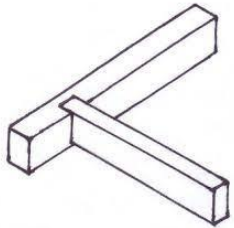
7. Specification: You will produce a fully justified specification.

1. Health and safety: You will be reminded how to keep yourself and others safe in the workshop.

8. Designing: You will produce design ideas and develop a final design using feedback from users..



7. Making: You will learn how to housing joints. You will also learn how to use tools safely and skilfully.



8. Making: You will learn how to use a bending jig to bend wire.



11. Testing and evaluating: You will test how effective the desk organiser is and explain how it could be improved.



10. Making: You will use screws and Adhesives to assemble your desk organiser.

12. End of project test.

End
of
Term

Year 9 Design & Technology

Food Technology

1. Describe and apply the principles of The Eatwell Guide and relate this to diet through life. Outline why dietary needs change throughout life stages. Describe the main dietary requirements of each life stage. Investigate diet related issues.

2. Secure and demonstrate knife skills and using the hob (frying, boiling and simmering) to prepare and cook mushroom risotto. Secure and demonstrate the principles of food hygiene and safety, focusing on rice, using knives, the kettle and the hob Investigate rice types and what happens when rice is cooked.

3. List and explain the dietary needs of children and young people. Investigate the relationship between physical activity and energy balance. Compare and evaluate different types of pasta (dried and fresh) and pasta sauces (chilled, long life, homemade)

4. Secure and demonstrate knife skills, grating, using the hob (frying, boiling and simmering), draining and using the grill to prepare and cook pasta Florentine. Secure and demonstrate the principles of food hygiene and safety, focusing on using knives, the hob, draining and the grill. Calculate the cost of the dish and compare with a readymade version.



5. To identify different special dietary needs (including food allergens, food intolerance and religious/ cultural needs). Investigate the information that is found on food packaging. Modify a dish for a person with a specific dietary need. Create a food label for the modified dish.



11. Secure and demonstrate weighing and measuring, knife skills, creaming, folding, preparing baking tins and use of the oven (baking), to prepare and cook a Dutch apple cake. Secure and demonstrate the principles of food hygiene and safety, focusing on handling eggs, knife skills, small pieces of electrical equipment and the oven. Explain the science of aeration..

12. Investigate the factors to be considered when planning and preparing food to be sold at a festival. Investigate the food hygiene and safety requirements for selling food at a festival. Create and plan a menu suitable for serving at a festival. Calculate the cost of the dish and /or menu items.

7. Investigate the information and guidance available to the consumer regarding availability, traceability, food certification and assurance schemes and animal welfare. Identify and explain food certification and assurance schemes.

8. Secure and demonstrate use of the hob (frying, boiling and simmering), draining, portioning, forming, shaping and using the oven (baking) to prepare and cook samosas. Secure and demonstrate the principles of food hygiene and safety, focusing on knife skills, the hob and the oven. Produce a recipe card with top tips, suggesting how to include food certification and assurance scheme ingredients

9. To explain the characteristics of a range of ingredients and how they are used in cooking. Research and explain different cooking methods.

6. Secure and demonstrate knife skills, use of the hob (frying, boiling and simmering), draining, mashing, layering and using the grill to prepare and cook a cottage pie. Secure and demonstrate the principles of food hygiene and safety, focusing on knife skills, handling and cooking raw meat, the hob, draining and the grill.

10. Secure and demonstrate weighing and measuring, knife skills, grating, forming, shaping, rolling out and use of the oven (baking), draining, portioning, forming, shaping and using the oven (baking) to prepare and cook a savoury tart. Secure and demonstrate the principles of food hygiene and safety, focusing on knife skills, the grater, rolling out (clean surface) and the oven. Explain the science of shortening and coagulation.

14. Secure, consolidate and demonstrate food preparation skills, when making a recipe kit dish, knife skills, mixing and combining, forming and shaping, assembling and layering and use of the cooker. Secure, consolidate and demonstrate the principles of food hygiene and safety, focusing on knife skills, handling and cooking raw meat, use of equipment, the cooker. Evaluate the planning and making of the recipe-kit dish.

13. Investigate food choice, meal options and recipe kits available in supermarkets or for home delivery. Write a plan for a recipe-kit to meet a specified need.

15. Appraise and evaluate your learning journey. Evaluate your practical cooking experiences. Review opportunities for future courses and career options and consider how your study of food can help you live a healthier life

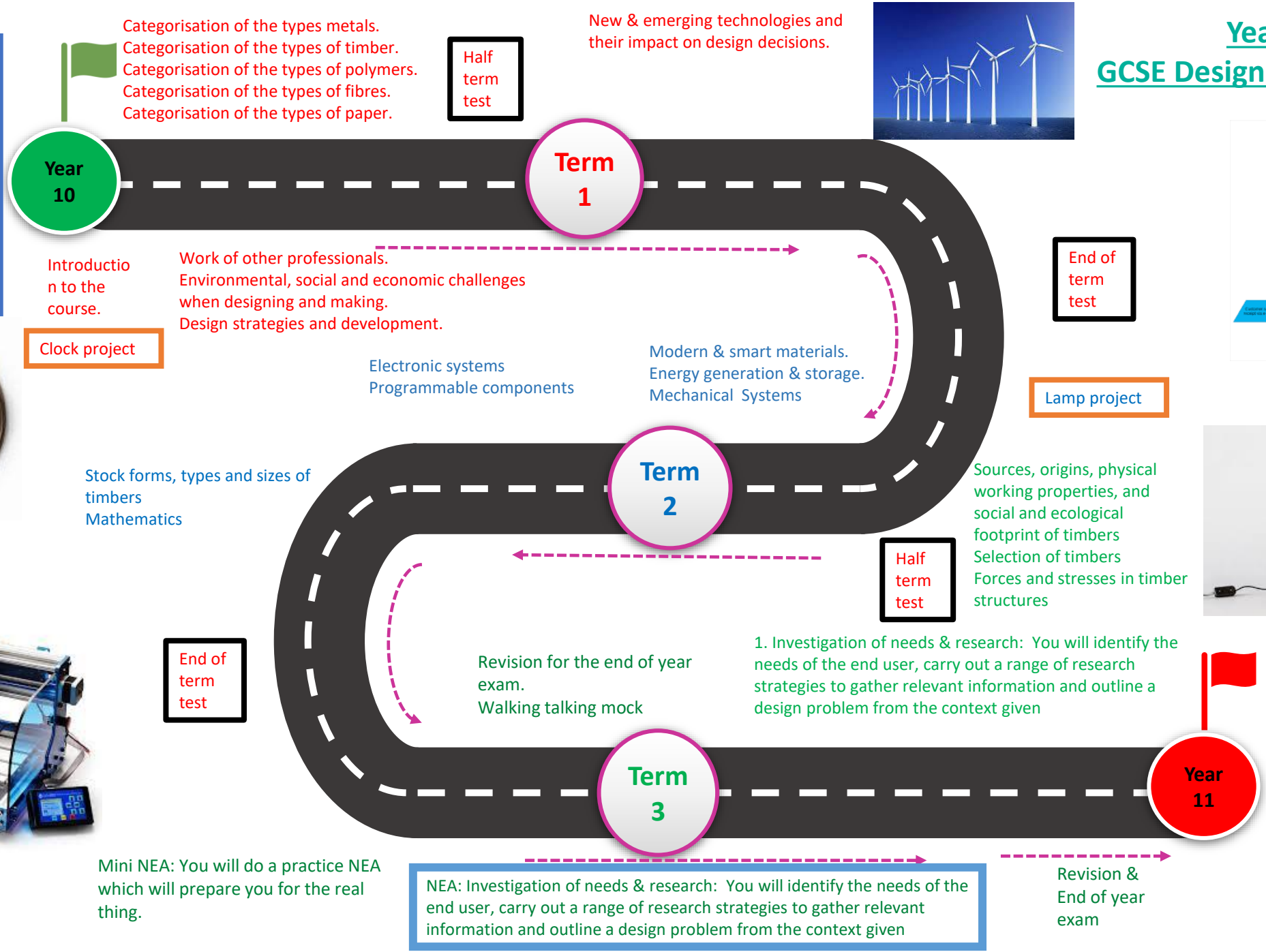


Start
of
Term

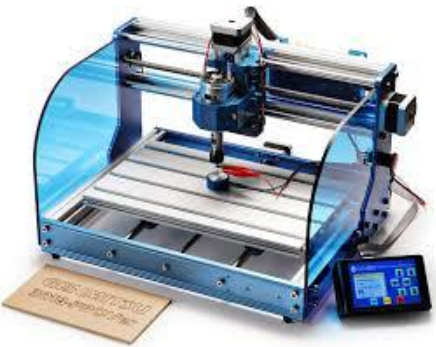
End
of
Term

Year 10 GCSE Design & Technology

You will spend most of year 10 learning all the theory content of the course , which will be examined at the end of year 11. You will spend the end of year 10 and most of Year 11 doing your NEA (Non-examined assessment).
Written exam: 50%
NEA: 50%



Clock project



End of term test



End of term test

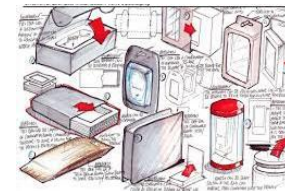


Lamp project



Year 11 GCSE Design & Technology

You will spend most of the year doing your NEA (Non-examined assessment). This is worth 50% of the GCSE.



Year
11

Term
1

3. You will review the chosen idea and finalise it using user feedback to inform your decisions.

4. Revision n& Mock Examination: You will revise for a mock and do a walking talking mock to get used to answering questions in the correct manner

Manufacturing to different scales of production. Specialist techniques, tools, equipment and processes for timbers. Surface treatments for timbers.

2. Design ideas: You will produce at least 4 design ideas that address the specification and review these against it. You will then develop the ideas into a chosen idea. You will use a wide range of design techniques .

Term
2

7. Testing and evaluation: You will analyse the prototype against the product specification and carry out a range tests under realistic conditions. You will also evaluate the sustainability of your product.

6. Manufacture: You will produce a prototype or proof of concept model that meets the requirements of the design brief and product specification, showing a wide range of making skills.

Term
3

8. Revision Preparation for the external examination

9. External examination; The final exam worth 50% of the GCSE.

Life
Skills

Post
16

Apprenticeships



Vocational Training Programs





Year
10

- 1.1.1 Hospitality and catering providers
- 1.1.2 Working in the hospitality and catering industry
- 1.1.3 Working conditions in the hospitality and catering industry
- 1.1.4 Contributing factors to the success of hospitality and catering provision



Year 10
WJEC Level 1/2
Award
Hospitality &
Catering
2024-25

Term
1

- 1.2.1 The operation of front and back of house
- 1.2.2 Customer requirements in hospitality and catering
- 1.2.3 Hospitality and catering provision to meet specific requirements



- 1.4.1 Food related causes of ill health
- 1.4.2 Symptoms and signs of food-induced ill health
- 1.4.3 Preventative control measures of food-induced ill health
- 1.4.4 The Environmental Health Officer (EHO)



Term
2

- 1.3.1 Health and safety in hospitality and catering provision
- 1.3.2 Food Safety



- 2.2.1 Factors affecting menu planning
- 2.2.2 How to plan production

- 2.3.1 How to prepare and make dishes
- 2.3.2 Presentation techniques
- 2.3.3 Food safety practices

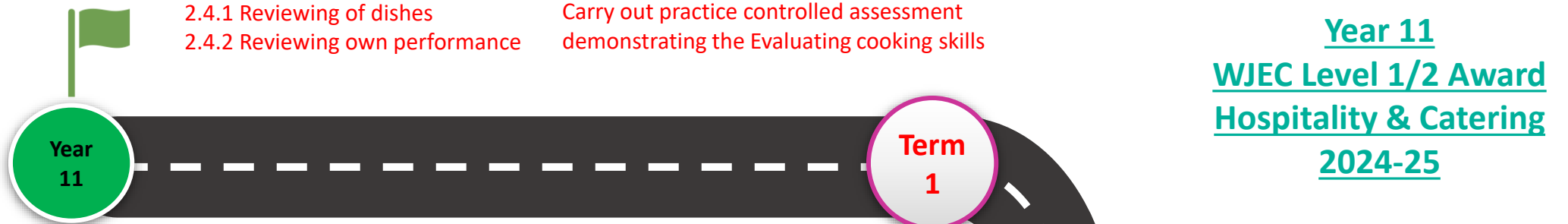
Term
3

- 2.1.1 Understanding the importance of nutrition
- 2.1.2 How cooking methods can impact on nutritional value



Year
11





Carry out controlled assessment demonstrating the following:
The importance of nutrition
Menu planning
The skills and techniques of preparation, cooking and presentation of dishes
Evaluating cooking skills



Revision
Preparation for the
external examination

