Curriculum Overview

Subject: DT and FPN

Year Group: 8

CHASE HIGH
Aspirations, Character & Excellence

Skills are built upon and developed in Year 8. All projects develop a range of design and practical skills in all areas and build on prior knowledge from their primary and Year 7 education. All projects for Design Technology are based on the National Curriculum requirements to ensure students receive a balanced and broad curriculum within the subject area across Year 7 to 9.

Students complete three projects in DT: textiles wallet, metal key holder, electronic night light. This is two lessons over a fortnight. 1 lesson a fortnight is FPN.

TERM 1	**TERM 2**	**TERM 3**
KNOWLEDGE/SKILLS Food Preparation and Nutrition: A wide range of food practical skills: stewing, frying, boiling, rubbing in method, baking, carbohydrates, proteins, fats investigations and raising agents. Students will make beef stew, chilli con carne, cookies. Design Technology: Health and safety, textiles and their properties, origins and uses. Understanding the influences of designers. How to make a wallet from a pattern, using a sewing machine, planning, evaluation.	KNOWLEDGE/SKILLS Food Preparation and Nutrition: A wide range of food practical skills: Bread making (rolls), bacterial contamination, Jambalaya, food provenance and storage, macaroni cheese, religion and culture. Design Technology: Health and safety, metals sources and their properties, designing and making templates, understanding and using tools and equipment for metal working. Joining metals, making a key holder, dip coating and evaluation.	KNOWLEDGE/SKILLS Food Preparation and Nutrition: A wide range of food practical skills: pizza, food marketing and packaging, chocolate chilli cakes, food miles and sustainability, apple and cinnamon spiral buns. Design Technology: Health and safety, electronic components, writing a specification, soldering, vacuum forming, understanding input process output, isometric drawing, making a PCB and night light, evaluation.
KEY ASSESSMENTS Half term 1: Half term 2: Module specific DT Test	KEY ASSESSMENTS Half term 1: Food Preparation and Nutrition half of year test Half term 2: Module specific DT test	KEY ASSESSMENTS Half term 1: Half term 2: Food Preparation and Nutrition end of year test Module specific DT test
Extended reading suggestions and external resources: www.technologystudent.com Eatwell guidelines – government website BBC bitesize		

Design and Technology Year 8 Assessment Criteria

	Bronze 	Silver 	Gold 	Platinum 
Knowledge and Understanding	I can categorise a range of materials into natural timbers, manufactured timbers, paper and boards. **I know the name of a range of workshop tools.** I can identify two types of wood joints. **I can identify two types of metal.**	I know the primary sources of materials for producing natural timbers, manufactured timbers, paper, board and polymers. **I know the name of a range of workshop tools and their uses.** I can identify and explain the advantage of using a wood joint. **I know the primary sources of materials for producing metals and alloys.** I can recognise common faults in natural timber describe the processes of conversation and seasoning.	I am able to recognise and characterise different types of natural, manufactured timbers, paper, board and polymers. **I can describe one school based workshop process including tools required.** I can identify and explain the advantage of two wood joints. **I know the difference between ferrous and non-ferrous metals**. I understand how the physical properties of a range of natural and manufactured timbers affect their performance.	I understand how the physical and working properties of a range of timbers, polymers, paper and board products affect their performance. **I can describe at least one school based workshop process including tools required in each material area.** I can identify and explain the comparative advantages of different wood joints. **I am able to recognise and characterise different types of metals and alloys.**
Research	I can use images of existing products and other simple information beyond the classroom. **My research shows a link to my brief and gives me some important technical information for my specification e.g. materials, sizes, components etc.**	I can use ideas from other designers to help me in my work. **I am able to explain how the images I have sourced could be used in my design.** I can produce a minimum of one A4 page of analysis that is descriptive and draws helpful conclusions related to the design task.	**I can show evidence of research from two sources independently e.g. internet, magazines, books, surveys etc.** My research shows evidence of analysis of form and function of similar/familiar products (other designer's work) **My research shows a thorough understanding of physical properties and working characteristics of materials.** I can analyse my research with regard to aesthetic and economic issues and apply this analysis to my design work.	I can gather user opinions through a simple survey that will provide specific information to improve my design work. **I can apply my understanding of form and function to my own design work.** I can apply the conclusions from my research and analysis to show my ideas better fit the target market. **I can write a design specification which identifies key aspects needed to develop design ideas.**

Design Ideas	I can draw two/three ideas with basic labels which relate to the brief. **I can use colour/texture to make my ideas look realistic.** I can identify a good and bad point about my designs.	**I can show a variety of different ideas that cater for different people's likes and tastes with some reference to my research.** I can draw and render to make my designs look 3D. **I can identify and write down good or bad points of a design.** I can annotate my designs to identify a suitable material.	**I draw inspiration for creativity from my existing product's research.** I can produce an appropriate model to show some of my design ideas. **My ideas show some technical understanding of materials, components etc. which is drawn from my research and analysis.** I can use simple information found to add detail to my idea e.g. sample sizes, materials etc. **I can explain what is meant by form and function in relation to my design ideas.**	My ideas are clear, concise and imaginative and directly relate to the brief. **I have trialled other products and taken ideas from them.** I have considered the 'fit for purpose' of my ideas when deciding which idea(s) to take forward for development. **My design work directly connects to my specification.** My research and analysis includes specific work on form and function and is clearly evident in my design work.
Making	**I can use tools and equipment safely with supervision.** I have a product which is mostly finish and uses one or more skills. **I can produce a product which has some accuracy in parts.**	**I can use tools and equipment correctly and safely.** I can produce a product which has a basic level of making. **I have produced a product which is mainly finished and uses two or more skills.** I can identify one quality check for my practical work.	I can work independently at times during my practical work. **I can use tools correctly and safely.** I have produced a product which has a good level of demand in some parts. **I can identify at least two quality checks for my practical work.**	**I can work mainly independently during practical work.** I can produce a product which has a very good level of making and finishing. **I have produced a product which is demanding in its range of skills.** I can apply quality checks to the practical work to make sure that it is well made.
Evaluation	I can explain the look of my design and with some help explain why this is the case. **With help I can say what needs to be better next time.** With some help I can say what was hard when making my product.	**I can explain the look of my design and with explanation why this is the case.** I can say if I was successful or unsuccessful. **I can identify good or bad points about my work.** I can identify a way of making my work look and work better.	I can reflect upon my design work and show some evidence of evaluation in my writing. **I can identify what is working well and what could be improved.** I can think about and reflect upon my specification and say where my product is successful and not-so-successful. **I can say/document where my product does/does not fit my specification and why.** I have identified major key weaknesses and suggested improvements.	**I can identify and document what is working well and what could be improved.** I can comment and compare upon most of my specification points and say whether it was helpful. **I can test my product in situation and document appropriate comments.** I can explain in writing about my research and specification whether it was appropriate to my final product or not. **I have evaluated my product in use and gained user feedback.** I have identified a number of key weaknesses and suggested improvements.

Food Preparation and Nutrition Year 8 Assessment Criteria

	Bronze	Silver	Gold	Platinum
Knowledge and Understanding	I can state the three macronutrients. **I can state the three groups of raising agents.** I understand what a micro-organism is along with the three types. **I can recognise some factors that influence a person's food choice.** My sensory analysis highlights a positive and potential improvement. **I can suggest ways buying food is better for the environment.**	I can state the three macronutrients and what makes them a macronutrient. **I can describe some types of raising agents and put them into the specific group.** I can state what micro-organsisms are capable of causing in the body. **I can describe how certain factors will influence an individual's food choice.** My sensory analysis includes taster feedback with data in a table and positives and improvements suggested. **I am able to describe what food miles and organic farming are.**	I am able to state why there are three macronutrients and describe which provides the most energy. **I can describe the role of a raising agent stating its group and a product it occurs in.** I can list some types of food poisoning with their symptoms. **I can explain how our senses are used to determine our food choices.** I can analyse a product using the four senses, stating positives, improvements and some nutritional analysis with tables and graphs. **I can analyse the benefits of buying organic and draw specific links between it and food miles.**	I am able to state the amount of energy per gram in each macronutrient and justify their individual functions. **I can explain how raising agents are used and their individual process to allow a product to rise.** I can explain the 5 types of food poisoning along with their individual symptoms and incubation periods. **I can recognise specific ingredients with senses alone and state 4 other factors to analyse a person's food choice.** I can show my sensory analysis results via tables and graphs which include positives, potential improvements and the nutritional content of the dish. **I am able to explain the clear links between food miles and organic farming along with the benefits of this type of farming.**
Preparation and planning	I can select the correct type ingredients and can weigh out what I need. **I can get myself ready for a practical activity with help and being reminded.** I can produce a basic flow chart with help.	I can select some of the equipment needed to make my product. **I know how to set up properly for a practical session**. I can produce a basic flow chart with some of the required information on it **My choice of ingredients will be based on the selection suggested by the teacher but include the correct quantity and type.**	I can use research to help make decisions about what to add to my food. **I know how to set up properly for a practical session and what to do at the end.** I can plan to make using a flow chart which will contain all of the information that I need to make a successful product. **I occasionally require help to select the equipment to enable me to make successfully.** I can select ingredients that are suitable to the type of dish being made. **I know how to store food correctly.**	I have a clear understanding of the type of ingredients that are suitable for the task. **I know how to write a flow chart and include equipment and ingredients in metric.** I can use my planning to enable me to set myself up ready for making. **Where research has been carried out, I can apply this to help select suitable dishes to make.** I know that cost, time available and food value are important when selecting foods to use. **I know about food hygiene and safety.**

Making: Basic techniques	**I need to be reminded how to prepare some ingredients like onion.** I know my basic equipment (e.g. sieve, peeler) and can use them properly. **I sometimes make use of my planning when making.** When reminded, I can carry out some basic skills. **I sometimes need help to control the heat on the hob.** I can set the oven temperature. **I need to be reassured about controlling the heat on the hob.**	I can follow my planning. **I understand how to use most of the small equipment in the room with support.** I can work by myself and make a useful contribution to team work. **I can make different types of products using the basic techniques correctly with support.** I am confident when using the oven and the hob, but need more practice with the grill.	I am confident when using the oven and the hob, but need more practice with the grill. **I understand how to use most of the small equipment in the room.** I can work by myself and make a useful contribution to team work. **I can make different types of products using the basic techniques correctly independently.** I am confident when using all aspects of the oven.	I am tidy and efficient most of the time whilst carrying out practical tasks. **I use my flow chart to help me make.** I can work as part of a team and I am quite confident when working by myself. **I can slice, dice, simmer, use the oven, hob and grill with some help from my teacher or peers.** I can work efficiently and tidily. **I can work on my own most of the time using my planning.**
Making: Adapting to needs	When given examples of how to make changes, I can make changes of my own. **My product needs to be improved, but does show some understanding of the task.** I need to be reminded of basic hygiene rules and safety rules. **I understand the need for hygiene standards.** I understand the need to be safe whilst carrying out practical work.	**I can name some foods that can be healthier alternatives.** I can carry out some simple practical tasks myself **My product is quite basic, but complete.** My product meets the needs of the task to some degree. **I have made one change to the original product to make it my idea.** I occasionally apply hygiene	**I often ask for help to make my product.** I apply some of the rules of hygiene whilst making. **I apply some of the rules of safety whilst making.** I can make simple changes to my product e.g. changing cheese to low fat cheese. **I ask for help to complete the more difficult stages e.g. shaping pastry.**	I can make appropriate changes to my dishes to make them healthier with help. **I apply the basic principles of hygiene and safety most of the time whilst cooking and when clearing up.** My product is a good illustration of adapting ingredients. **I ask for help occasionally to help finish my product.** I use my teacher's comments to help me to adapt my recipes to make them healthier/more suitable to the task set.
Evaluating	**With some help, I can say what was hard about making my product.** I can say if I was successful or unsuccessful. **I can identify some of the good and bad points about my work.** I can identify a way of making my work look and taste better.	**I can identify what is working well and what can be improved.** I can identify all of the good or bad points about my product. **I can say what was said by others about my product.** I can use sensory descriptors to discuss some aspects of my product.	I can make some simple suggestions for changes to the product next time. **I can use the comments of others to help me evaluate my product full.** I can use sensory analysis or a star profile to help me evaluate my product in detail.	**I can describe my product using comments from other people.** I can compare my product to existing products. **I can say what I need to make changes to and how I might implement those changes.** I can explain in writing whether a product has been successful or not.