

Unit Title	Pixel Project	Art Deco Mirror	Applying the Principles of Nutrition and Health
Number of lessons	4 lessons	14 lessons	14 lessons
Curriculum content	<p>Objectives:</p> <ul style="list-style-type: none"> Everyone will understand what a pixel is Everyone will be able to re-create a series of pixel images given by the teacher Most pupils will design their own pixel characters Some pupils (gifted) will design very creative pixel characters. A pixel is the smallest unit of a digital image or graphic that can be displayed and represented on a digital display device. A pixel is the basic logical unit in digital graphics. Pixels are combined to form a complete image, video, text, or any visible thing on a computer display. A pixel is also known as a picture element (pix = picture, el = element). 	<p>During this period of learning pupils' will be making and then designing a Mirror Frame and stand in the style of Art Deco or Art Nouveau. This project is to develop and enhance your research, design and making skills. Building on knowledge you have previously learned. Learners' be expected to work to the best of your ability throughout this project, with the main emphasis on producing a high standard of work and a very high quality final product.</p> <p>Additional targets to choose from-</p> <ul style="list-style-type: none"> use different research options e.g. not just the internet. use instruments to help present your work neatly. add more notes to design ideas saying why you have chosen features. <p>Knowledge based assessment and practical skills</p> <p>Solve technical problems: You clearly modify and change your work as necessary as it develops.</p> <p>Reflect on their own designing: You evaluate both how you have used your</p>	<p>Understand and apply the principles of nutrition and health to cook a repertoire of predominantly savoury dishes to be able to feed themselves and others a healthy and varied diet. Competency in a range of cooking techniques adapting taste, texture and smell to personal preference. Sources, seasonality and provenance of a range of ingredients – rice and cereals, fruit and vegetables, dairy, meat, fish and shellfish, potatoes. Modification of recipes to adjust to different user groups – allergies and lifestyle choices. Functional characteristics of ingredients. Increased awareness of food and personal hygiene and the role of microorganisms. Presenting and garnishing food to a high standard.</p>

		<p>research in designing and how effective your product is.</p> <p>Use understanding of others' designing: You recognise good work from others, and modify your ideas accordingly.</p> <p>Areas to be assessed:</p> <ul style="list-style-type: none"> • Use of templates • Measuring and marking out • Use of a Tools (Tenon saw, coping saw, try square...etc.) • Following a Production Plan. 	
Links to prior learning	<p>Maths- Grid paper</p> <p>ICT- Coding and pixels</p>	<ul style="list-style-type: none"> • History- Boom and Bust • Maths- Symmetry 	<p>Pupils will built upon prior learning from both year 7 and 8. The knowledge of the Eatwell plate, energy balance, BMR, BMI, allergies and intolerances will allow students to adapt dishes and develop an inquisitive mind</p>
Cultural capital opportunities	<p>https://www.youtube.com/watch?v=VTtMruBheqY</p> <p>https://www.youtube.com/watch?v=82TL-Acm4ts</p> <p>https://www.youtube.com/watch?v=SwZ_YwvYHo4</p>	<p>Eileen Gray https://youtu.be/HugX1wMS18s</p> <p>Charles Rennie Macintosh https://youtu.be/PWQPyKQiVxY</p>	<p>https://www.foodafactoflife.org.uk/14-16-years/food-commodities/dairy/#</p> <p>https://www.foodafactoflife.org.uk/14-16-years/food-commodities/dairy/#</p> <p>find out about local flour mills and the sugar beet processing in Bury St Edmunds</p>
Assessment focus	N/a	Art Deco Mirror	<p>Pre-assessment: stir-fry</p> <p>Assessment: Pasta Fiorentina</p> <p>End of year test</p>

Year 9 Knowledge Organiser: Skills focus

SKILLS

General practical skills



Preparing vegetables



Knife skills



Using the hob

HATTIE

- H** – Tie your hair back or wear a hat. Wash your hands.
- A** – Put an apron on.
- T** – Clean your table with antibacterial spray.
- T** – Collect a tray to keep all your ingredients together.
- I** – Collect all the ingredients you need.
- E** – Collect equipment you need; prepare any tins/baking sheets (e.g. grease or line).

Doughs

Cereals: flour is used to make pasta and pastry doughs.



Pasta machine



Pastry dough



Making flaky pastry



Choux pastry



Shortcrust pastry



Flaky pastry for seasonal fruit tarts



Making bread

Setting mixtures

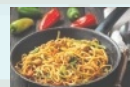
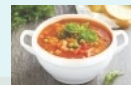
Gelatinisation and gelation



Use of equipment: Food processor



British and international cuisine



Using the temperature probe and the microwave oven safely



ASSESSMENT

NEA1 style experiments
NEA2 style practical assessment
at the end of the course

Year 9 Knowledge Organiser: Theory focus

FOOD SAFETY

Where do bacteria come from? Bacteria are micro-organisms which can cause food poisoning.



FOOD PROVENANCE

The heat treatment of milk destroys bacteria and increases its shelf life. The different treatments are: pasteurisation, sterilisation, UHT, drying, evaporating and condensing.



Using seasonal foods reduces our carbon footprint.

Yoghurt and cheese are made from milk during secondary processing.

Making yoghurt

FOOD COMMODITIES

Cereals are cultivated grasses. Wheat is one of the most important cereals. During the primary processing the outer layers of the grain are separated from the inner layers. Milling is the process of grinding down the wheat grain into flour. Flour is used to make pasta, bread, pastries and cakes.



FOOD SCIENCE



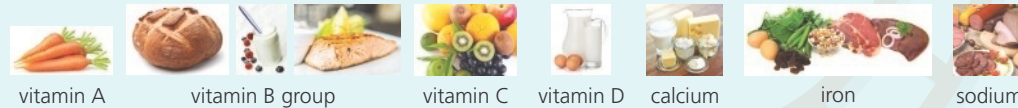
Fermentation is a process where yeast produces carbon dioxide, for example, during breadmaking.



Caramelisation is the process of heating sugar. It starts to melt and then turns from a clear colour to dark amber.

FOOD NUTRITION AND HEALTH

Micronutrients are vitamins and minerals. They are needed in small amounts in the body.



vitamin A

vitamin B group

vitamin C

vitamin D

calcium

iron

sodium



Different groups of people require different amounts of nutrients. Babies require foods rich in iron and vitamin C from 6 months.

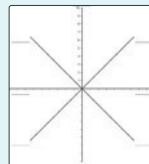


Teenagers need foods high in protein, calcium, vitamin D, iron and vitamin C.

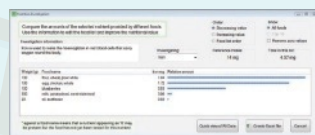


Older adults need extra protein, calcium, vitamin D, iron and vitamin C.

FOOD CHOICE



Sensory evaluation allows us to judge foods based on different characteristics. The results can be recorded on a star profile.



Nutritional analysis is used to find out which nutrients are in different foods.

ASSESSMENT

Interactive activities at the end of each lesson will test your knowledge and understanding.

There will be a test at the end of the course to check your knowledge and understanding – it will include multiple choice questions and short and long answer questions.

Money Box Project– Knowledge Organiser

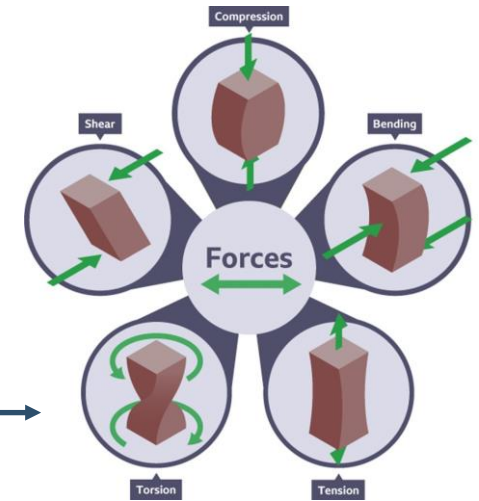


Lord Norman Foster

Lord Norman Foster is the architect responsible for numerous world- famous buildings, including many in London such as: Gherkin, Wembley stadium and Apple Park.



FORCES



What is a designer?

A is for Aesthetics	Aesthetics means what does the product look like? What is the: Colour? Shape? Texture? Pattern? Appearance? Feel? Weight? Style?
C is for Cost	Cost means how much does the product cost to buy? How much does it: Cost to buy? Cost to make? How much do the different materials cost? Is it good value?
C is for Customer	Customer means who will buy or use your product? Who will buy your product? Who will use your product? What is their: Age? Gender? What are their: Likes? Dislikes? Needs? Preferences?
E is for Environment	Environment means will the product affect the environment? Is the product: Recyclable? Reusable? Repairable? Sustainable? Environmentally friendly? Bad for the environment? 6R's of Design: Recycle / Reuse / Repair / Rethink / Reduce / Refuse
S is for Size	Size means how big or small is the product? What is the size of the product in millimeters (mm)? Is this the same size as similar products? Is it comfortable to use? Does it fit? Would it be improved if it was bigger or smaller?
S is for Safety	Safety means how safe is the product when it is used? Will it be safe for the customer to use? Could they hurt themselves? What's the correct and safest way to use the product? What are the risks?
F is for Function	Function means how does the product work? What is the products job and role? What is it needed for? How well does it work? How could it be improved? Why is it used this way?
M is for Material	Material means what is the product made out of? What materials is the product made from? Why were these materials used? Would a different material be better? How was the product made? What manufacturing techniques were used?

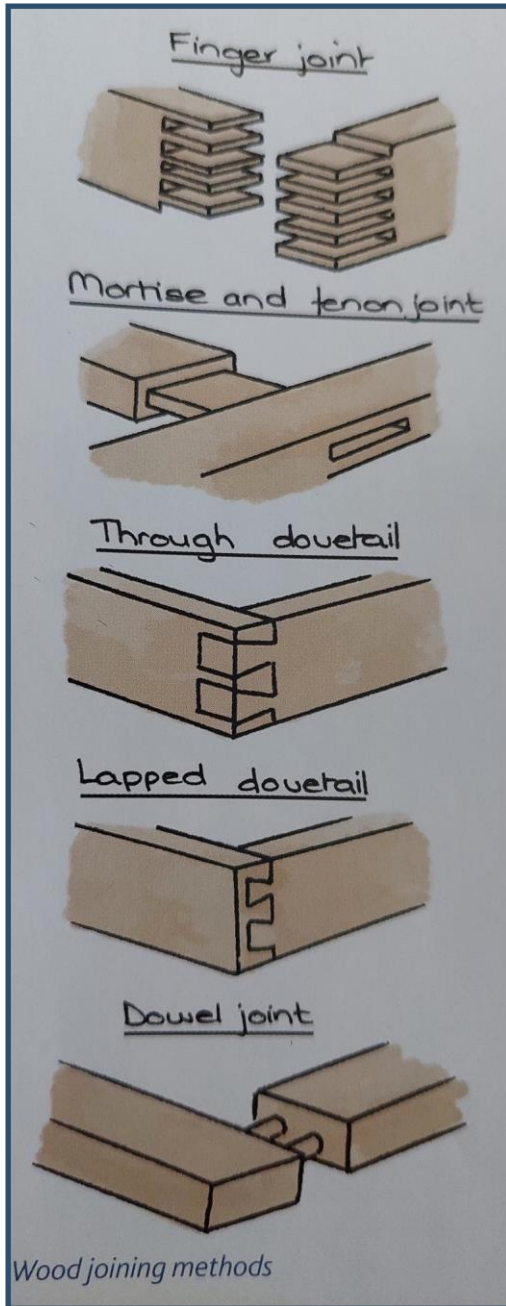
A person who plans the look or workings of something prior to it being made, by preparing drawings or plans



Mary Quant

Shortly after the launch of her first boutique, named BAZAAR in kings road, London. Mary Quant became famous for bringing the mini-shirt to popularity.

Money Box Project– Knowledge Organiser

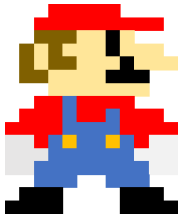


Eye
protection
must be
worn



Aprons must
be worn

Name	Picture	Use
Coping Saw		The thin blades allow you to make curved cuts. The blade is held in tension by the spring steel frame with teeth pointing backwards towards the handle.
Tenon Saw		A hand saw with a stiff back used to cut straight lines in wood.
Pillar Drill		A machine used to make holes in materials.
Bench hook		Used to hold the wood when cutting on the face.
Mallet		A hammer with a large wooden head.
Try Square		The try-square is pushed against the straight edge of a piece of wood and a pencil is then used to mark a straight line across the material. The line is continued all the way round the wood (all four sides are marked). This type of marking materials helps if a joint is to be cut or the end of the material is simply to be sawn away
Rule		Steel rules come in rigid and flexible versions. While their primary purpose is accurate measurement , they can also be used as guides for laying out lines, and if rigid enough, for cutting. The thinner, more flexible rules can also be used to measure rounded or cambered work.



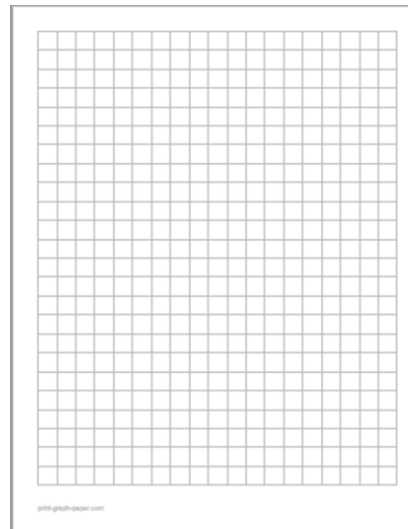
Pixel Knowledge Organiser

What are Pixels?

- A pixel is the smallest unit of a digital image or graphic that can be displayed and represented on a digital display device.
- A pixel is the basic logical unit in digital graphics. Pixels are combined to form a complete image, video, text, or any visible thing on a computer display.
- A pixel is also known as a picture element (pix = picture, el = element).

What profession would use grid paper:

- Engineer
- Architect
- Interior Designer
- Graphic Designer
- Scientist
- Mathematician
- Retro Computer games designer.



Graph/ Grid Paper

- This can be known as 'grid paper' especially for GCSE DT in Year 10 & 11.
Appearance: white paper with a printed grid.
- Isometric lines or other patterns
Appearance: white paper with a printed grid this can be a square, isometric lines or other patterns.
- Characteristics: Usually printed on 80 gsm paper lines often in light blue ink. Lines can be printed darker for use under plain paper as a drawing guide.
- Used for graphical, scientific and mathematical diagrams particularly in conjunction with a light box as a drawing guide.

Equipment

What is a Ruler?

A ruler can be defined as a tool or device used to measure length and draw straight lines.

A ruler is used to measure the length in both metric and customary units. The rulers are marked with standard distance in centimetres in the top and inches in the bottom and the intervals in the ruler are called hash marks.

Where is the ruler used?

Ruler is used in math and geometry, engineering, carpentry, technical drawing and many more places.

What is the use of pencil in drawing?

Pencils are the most versatile of drawing media because of the variety of marks that can be made. Marks can be subtle and delicate or bold and vigorous. A few bold strokes can capture movement whilst tonal shading can define form. A great characteristic of pencil is that line and tone can be combined in one drawing.

What are coloured pencils used for?

You can use coloured pencil to tint a drawing with light strokes that let the colour of the paper show through, or you can use coloured pencil to create a solid deposit of many layers of colour. Because coloured pencil is primarily a dry medium, there's no drying time to worry

