















2021-22 CURRICULUM MAP FOR DT YEAR 9

<p>HALF TERM 1: NEW Food from around the world</p> <p>KQ1 -How can I develop my food preparation and cooking skills to produce a variety of nutritional meals for different cultures, religions and environments? Use of knife skills, selecting appropriate equipment, time management skills, working independently, photographic evidence.</p> <p>KQ2 – How can I use a variety of equipment to build my knowledge and expertise of using different cooking methods for different ingredients and commodities? Specialist equipment, stock control, workflow, kitchen equipment, materials, protective clothing PPE, safety.</p> <p>KQ3 – Why is food storage important to health? Cross contamination – 4c’s, food storage equipment/appliances, correct temperature, bacteria growth and causes of ill health.</p> <p>KQ4 – What is Health and safety? Risk and control measures for personal safety, HACCAP and risk assessments.</p> <p>KQ5 – What should I know about Hospitality Law and legislation? The food safety act 1990, HACCAP, food Hygiene regulations, food premises, responsibilities of food handlers, food labelling.</p> <p>KQ6 – Who is the EHO Environmental Health Officer? Inspection, prosecution.</p>		<p>Guided reading - understanding different cultures, religions and background (social, moral and environment) in relation to cooking and selling food in the Hospitality Industry.</p>
		<p>Students to write out the facts about the Law and legislation that protects a Hospitably business and its customers.</p>
		<p>Students to discuss and present facts based on the importance of Health and safety regarding food storage and the law.</p>
		<p>Law – Food safety Act 1990. Science – The environment and sustainability.</p>
<p>HALF TERM 2: NEW Pop up restaurant Design post pandemic</p> <p>KQ1 – What are the current trends in Hospitality post pandemic? Regrowth, global economy, trends, demographics, lifestyle changes, enjoyment for life and entertainment, including eating out.</p> <p>KQ2 – How can I develop practical knowledge and skills? Use of knife skills, selecting appropriate equipment, time management skills, working independently, photographic evidence.</p> <p>KQ3 – What is the theory context for this subject? Break down of the content and deadlines for practical execution.</p> <p>KQ4 – What is the Project context for this subject? Project brief/theme and specifications.</p> <p>KQ5 – Why are customer demographics important? Location, age, target audiences.</p> <p>KQ6 – What are customer needs, requirements and expectations? Essential, desirable, extras, customer trends, Unique Selling Point.</p> <p>KQ7 – What are Special diets? Food allergies and intolerances, Anaphylaxis, lactose intolerance, coeliac disease.</p> <p>KQ8 – Why should we follow the Eat well Guide lines? Carbohydrates, fats, protein, 5 a day, vitamins and minerals.</p>		<p>Guided reading - Hospitality and catering provision post pandemic.</p>
		<p>Students to write a report on the Hospitality and catering provisions for a new pop up restaurant design to be first hosted in Wolverhampton. Students will consider USP, customer trends, promotion material, staff operations and documentation.</p>
		<p>Students will present their ideas and research on the Hospitality provisions for a new pop up restaurant design as powerpoints to the class.</p>
		<p>Business – USP, target audiences, careers. Science – digestion and food seasonality.</p>










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<p>KQ9 – What are the latest Trends and media relating to Hospitality? 3D food printing, food presentation, gastronomy.</p> <p>KQ10 – Why is it important to maintain a healthy Digestion system? The digestive system, importance of fibre in the diet (fruit and vegetables).</p> <p>KQ11 – What is Food seasonality? Seasonal menus, seasonality chart, costing and reasoning, buying local, reducing Co2 emissions and transportation on a global scale.</p> <p>KQ12 – What are the main Job roles within the Hospitality and catering industry? Personal attributes, different job roles and responsibilities, training and qualifications, career development.</p>		
<p>HALF TERM 3: Product Design Sustainable Bird Feeder/insect home</p> <p>KQ1 – What skills will I learn from planning, designing and manufacturing a Bird feeder?</p> <p>KQ2 – What are Social, moral and economic considerations? Standard components, human factors, physiological, psychological, metrological and sociological, target audiences, inclusive or exclusive design, careful designing, responsibility, anthropometrics and Ergonomics, working triangle, disability, access.</p> <p>KQ3 – Why is it important to consider the environment and sustainability? Effect on the environment, disposing of products, re-using material, carbon footprint and product miles, renewable and non- renewable resources.</p> <p>KQ4 – What are product Life cycles? Cradle to grave manufacturing, who is responsible?</p> <p>KQ5 - What are the 6’rs in relation to product design? Reduce, recycle, reuse, rethink, repair, replace, sustainability.</p> <p>KQ6 – What Materials are used in product designing? Paper and board, wood and timber, hardwoods and softwoods, manufactured boards, metals and ferrous metals, non-ferrous metals and alloys, thermosetting plastics, ceramics, textiles, synthetic fibres, natural fibres.</p> <p>KQ7 – What finishes can be applied to different materials? Paints, wax, polish, dip-coating, powder coating, anodising, plating and galvanising, glazing.</p> <p>KQ8 – What are manufacturing methods? Primary and secondary processing, forming, assembling, finishing, casting and moulding, welding, wastage and conditioning, ICT and remote manufacturing.</p> <p>KQ9 – What are scales of production? 24/7, mass, batch, one-off, continuous, Just in time, distribution, logistics.</p> <p>KQ10 – What are Smart and modern materials? Polymers, metal clays and compositions, carbon fibres and foamed metals, smart textiles and pigments, shape memory alloys and nanotechnology.</p>		<p>Guided reading - Where do our plastics go?</p>
		<p>Student to write a report on where plastic is disposed and its impacts on the enviroment.</p>
		<p>Students to present a Powerpoint based on their report findings to the rest of the class. Who is responsible to clean up the world?</p>
		<p>Science – the impact of material disposal on the Environment.</p>







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<p>HALF TERM 4: Product Design Time project</p> <p>KQ1 – How can using digital design tools help with designing a product(s)? CAD/CAM/CAE (Design 360)</p> <p>KQ2 - How can I make iterative models and prototypes? Designing, sketching, design developments, rendering, shading and toning, Product analysis.</p> <p>KQ3 – What is the main purpose/outline of the project? Break down of the content and deadlines for practical execution.</p> <p>KQ4 – What are the expectations of the project? Project brief/theme and specifications.</p> <p>KQ5 – What is the success criteria of the project? Relate to exam board criteria where appropriate.</p> <p>KQ6 – How can I successfully develop themes/briefs/specifications for the project? Researching, mind mapping, investigations, surveys and questionnaire to the stakeholder, ACCESS FM.</p> <p>KQ7 - What are the appropriate material selection for manufacturing in –house? Paper and board, wood and timber, hardwoods and softwoods, manufactured boards, metals and ferrous metals, non-ferrous metals and alloys, thermosetting plastics, ceramics, textiles, synthetic fibres, natural fibres.</p> <p>KQ8 – How can I produce a successful evaluation? Questionnaires, surveys, pie charts, research analysis, product testing, data, analysing primary and secondary knowledge.</p>		<p>Guided reading - Law and legislation</p>
<p>KQ2 - How can I make iterative models and prototypes? Designing, sketching, design developments, rendering, shading and toning, Product analysis.</p> <p>KQ3 – What is the main purpose/outline of the project? Break down of the content and deadlines for practical execution.</p> <p>KQ4 – What are the expectations of the project? Project brief/theme and specifications.</p> <p>KQ5 – What is the success criteria of the project? Relate to exam board criteria where appropriate.</p>		<p>Students to write out the facts about the Law and legislation that protects a designer/the company and its customers.</p>
<p>KQ6 – How can I successfully develop themes/briefs/specifications for the project? Researching, mind mapping, investigations, surveys and questionnaire to the stakeholder, ACCESS FM.</p> <p>KQ7 - What are the appropriate material selection for manufacturing in –house? Paper and board, wood and timber, hardwoods and softwoods, manufactured boards, metals and ferrous metals, non-ferrous metals and alloys, thermosetting plastics, ceramics, textiles, synthetic fibres, natural fibres.</p> <p>KQ8 – How can I produce a successful evaluation? Questionnaires, surveys, pie charts, research analysis, product testing, data, analysing primary and secondary knowledge.</p>		<p>Students to discuss and communicate their ideas about the difference between Quality Control and Quality Assurance and how it relates to their work?</p>
<p>HALF TERM 5: Graphics - Promotional Merchandise</p> <p>KQ1 – What is promotional merchandise?</p> <p>KQ2 – Why is colour important when communicating graphics? Primary and secondary colours, colour wheel, complementary colours, hue and tone, colour fusion and separation, image, language and meaning.</p> <p>KQ3 – What are logos and trademarks? Corporate identity and brand names, symbols, registered companies, law, patents and copyright.</p> <p>KQ4 – What is typography? Lettering styles, uppercase and lower case, size and styles, fonts, small letters, serifs, typeface, sans.</p> <p>KQ5 – What is spacing? Width, kerning, text, tracking, alignment of text.</p> <p>KQ6 – How can I develop my drawing techniques? Grids, tracing, scanning, marker pens, mm and inches, angles, depths and weights, types of paper, corrugated cardboard, transparency of materials, plan drawing.</p> <p>KQ7 – What materials can I use to communicate my graphic ideas? Mixed media, function of equipment and templates, correct selection of pens and pencils.</p> <p>KQ7 – What does Graphic communication modelling look like?</p>		<p>Guided reading - Smart and modern materials.</p>
<p>KQ2 – Why is colour important when communicating graphics? Primary and secondary colours, colour wheel, complementary colours, hue and tone, colour fusion and separation, image, language and meaning.</p> <p>KQ3 – What are logos and trademarks? Corporate identity and brand names, symbols, registered companies, law, patents and copyright.</p>		<p>Students will use the article on Smart and modern materials to debate who is driving the need for newer more innovative materials – the customer, designer, scientists, artist or technology?</p>
<p>KQ4 – What is typography? Lettering styles, uppercase and lower case, size and styles, fonts, small letters, serifs, typeface, sans.</p> <p>KQ5 – What is spacing? Width, kerning, text, tracking, alignment of text.</p>		<p>Students to debate their written argument, based on the article, to small groups or the whole class.</p>
<p>KQ6 – How can I develop my drawing techniques? Grids, tracing, scanning, marker pens, mm and inches, angles, depths and weights, types of paper, corrugated cardboard, transparency of materials, plan drawing.</p> <p>KQ7 – What materials can I use to communicate my graphic ideas? Mixed media, function of equipment and templates, correct selection of pens and pencils.</p> <p>KQ7 – What does Graphic communication modelling look like?</p>		<p>Art – colour, mixed media, equipment, communication. Science – smart and modern materials. Business – logos and branding.</p>



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<p>Material, adhesives, fixatives and masking, tools, finishes, paints and inks, pre-manufactured components.</p> <p>KQ8 – What are Smart and modern materials? Thermochromic and photochromic, potatopak, polymorph, LCD, nanotechnology, carbon fibres, types of plastic.</p> <p>KQ9 -How can I develop my presentational drawing by using drawing tools? Equipment and templates.</p> <p>KQ10 – What is plan drawing? Scale representations, planometric technique, methods of enlarging, recognising different shapes.</p> <p>KQ11 – What is isometric drawing? Projection, vanishing points, accuracy and drawing to scale.</p> <p>KQ12 – What is perspective drawing? 2D, 3D, perspective drawing, sketches, exploded drawings, horizon line, advantages and disadvantages, proportion, ProDesktop.</p>		
<p>HALF TERM 6: Graphics – Board Game</p> <p>KQ1 – What are the design and market influences? Influential designers, Harry Beck, Alberto Alessi, 1970 design, Wally Olins, Robert Sabuda, ergonomics and Anthropometrics, design factors, legibility, contrast and style.</p> <p>KQ2 – What is the product analysis? Disassembly, built in obsolescence, manufacturing techniques/productions, competition, environmental fair trade.</p> <p>KQ3 – Why is the environment and sustainably important factors within Graphic communication? 6 r's, eco-design, biodegradable, ecological foot print, energy sources, Kyoto protocol.</p> <p>KQ4 – What is a Design Brief? Stakeholder, target audience, customer profile, task.</p> <p>KQ6 – Why is it important to analyse the Brief? Initial research, primary and secondary research, investigation, initial ideas, the design process.</p> <p>KQ7 – How can analysing existing Products aid my own graphic communication? Future design development, sketches, drawings, examples.</p> <p>KQ8 – What is a Specification? ACCESSFM.</p> <p>KQ9 – Why is researching British Culture graphics helpful in understanding graphic communication? Graphic communication influences through the decades.</p> <p>KQ10 – What do good Initial Ideas sketches of graphic communication look like? Composition, layout, colour, typography, logos and trademarks, imagery.</p> <p>KQ11 -How can I developed my graphic design Ideas? Presentation, development of ideas, composition and style.</p> <p>KQ12– What is expected for my Final CD Cover Design? 2D, 3D, perspective drawing, sketches, exploded drawings, horizon line, advantages and disadvantages, proportion, use of ProDesktop, projection, vanishing points, accuracy and drawing to scale.</p> <p>KQ13 – What does a successful evaluation of your final CD Cover look like?</p>		<p>Guided reading - Influential designers – Harry Beck, Alberto Alessi, Wally Olins and Robert Saduda.</p>
		<p>Students to write a report on how these designers have influenced graphic communication in the last 10 decades.</p>
		<p>Students to research and select their favourite graphic communication designer. Present their findings in a PowerPoint to small groups or the whole class.</p>
		<p>Science – movement and mechanisms, materials, environment and sustainability, ecological foot print and energy sources.</p>



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Questionnaires, surveys, pie charts, research analysis, product testing, data, analysing primary and secondary knowledge.		
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