

# LYNN GROVE ACADEMY

## WJEC Eduqas GCSE in FOOD PREPARATION AND NUTRITION

### DESIGN TECHNOLOGY CURRICULUM MAP KS4

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 10	<p><b>Timescale-</b> 7 weeks <b>Learning Focus</b> Commodity: Fruit and vegetables, including potatoes (fresh, frozen, dried, canned and juiced) <b>Skill/knowledge development</b> Provenance, How commodity is grown/reared and Processed, Classification, Nutritional values (include sources, functions, deficiencies, excess, daily requirements), Dietary considerations, Food science, NEA Assessment 1 practise investigation- enzyme action, Food hygiene and safety, Storage (Bonne Femme Soup, Pineapple upside down cake, fruit salad, mixed vegetable gratin) <b>Keywords/terminology/concepts</b> How/where fruit and vegetables are grown, link</p>	<p><b>Timescale-</b> 7 weeks <b>Learning Focus</b> Commodity: Milk, cheese and yoghurt <b>Skill/knowledge development</b> Provenance, How commodity is grown/reared and Processed, Classification, Nutritional values (include sources, functions, deficiencies, excess, daily requirements), Dietary considerations, Food science, NEA Assessment 2 practise investigation- making butter/yoghurt/cheese, Food hygiene and safety, Storage (crème brûlée, Halloumi kebabs, frittata, quiche) <b>Keywords/terminology/concepts</b> Local versus nationally distributed, import, cost, milk prices for farmers livelihood, food miles,</p>	<p><b>Timescale-</b> 6 weeks <b>Learning Focus</b> Cereals (including flours, breakfast cereals, bread and pasta) <b>Skill/knowledge development</b> Provenance, How commodity is grown/reared and Processed, Classification, Nutritional values (include sources, functions, deficiencies, excess, daily requirements), Dietary considerations, Food science, NEA Assessment 3 practise investigation - Investigate the best flour for bread making, Food hygiene and safety, Storage (focaccia, calzone, fougasse, risotto, samosa, spinach &amp; ricotta ravioli, ) <b>Keywords/terminology/concepts</b> How climate, soil, etc., affects the types of cereals which can grow, GM crops,</p>	<p><b>Timescale-</b> 6 weeks <b>Learning Focus</b> Commodity: Meat, fish, poultry, eggs <b>Skill/knowledge development</b> Provenance, How commodity is grown/reared and Processed, Classification, Nutritional values (include sources, functions, deficiencies, excess, daily requirements), Dietary considerations, Food science, NEA Assessment 4 practise investigation - Show how the setting of egg protein can be affected when making baked egg custard, or Conduct an experiment to show the best way to tenderise meat by breaking down the connective tissue. Food hygiene and safety, Storage (portioning/boning whole chicken, chicken escalope's, salmon en papillote,</p>	<p><b>Timescale-</b> 6 weeks <b>Learning Focus</b> Commodity: Butter, oils, margarine, sugar and syrup <b>Skill/knowledge development</b> Provenance, How commodity is grown/reared and Processed, Classification, Nutritional values (include sources, functions, deficiencies, excess, daily requirements), Dietary considerations, Food science, NEA Assessment 5 practise investigation- Demonstrate the creaming properties of fats when making a sponge cake using the creaming method. Which fat produces the best results? Explain why. Or show the shortening properties of fats when making a shortcrust pastry. Which fat produces the best results? Explain why. Food hygiene and safety,</p>	<p><b>Timescale-</b> 6 weeks <b>Learning Focus</b> Commodity: Soya, tofu, beans, nuts, seeds <b>Skill/knowledge development</b> Provenance, How commodity is grown/reared and Processed, Classification, Nutritional values (include sources, functions, deficiencies, excess, daily requirements), Dietary considerations, Food science, Food hygiene and safety, Storage. No NEA assessment as limited time &amp; food science opportunities. ( Tofu&amp; vegetable stir fry, sweet &amp; sour sauce, lemon &amp; pine nut cake, Quorn dish of own choice, dish for specific dietary requirement) <b>Keywords/terminology/concepts</b> how/where soya, beans, nuts and seeds are</p>

<p>to climate, soil Types, organic verses non-organic (Soil Association, etc.) Use of pesticides and herbicides, Customer choice , cost, Food miles, Seasonality, growing, harvesting, primary and secondary Processing, preservation, taste test, methods of sensory testing, changes to texture, colour and flavour due to cooking, 5 a day , Eatwell guide, dietary fibre ,Water, vitamins and minerals, Nutrient requirements, Fat and water soluble vitamins – effect of oxidation, heat on vitamin content of fruits and vegetables, nutrient content of a specific fruit or vegetable – fresh, frozen, canned, dried, Vegetarians (lacto/lacto-ovo/vegan) Bone health, Healthy blood, Composition of fruits and vegetables Oxidation/enzymic browning, personal hygiene, Refrigeration temperatures, Use By and Best Before dates Stock rotation, Bagged salads – food poisoning risk, Ambient, Chilling, canned foods, Freezing, blanching <a href="#">Summative Assessment</a></p>	<p>organic, Food wastage and sustainability, how animals are reared, fed and milked. Animal sources of milk, different methods of preserving milk (drying, UHT, pasteurisation, etc.), convenience foods, hygiene for effective food safety (heat treatment), Effect on nutritional content from processing, secondary processing – milk to cream, yoghurt, cheese, etc. different animal sources (non-dairy milk – e.g. nut, soya, coconut; alternatives to non-dairy cream), cream, yoghurt, cheese, etc. different types of milk – skimmed, semi-skimmed, etc. different types of cream – whipping, soured, etc. , fat content, different types of cheese – hard, soft, etc. time management, dovetailing, writing detailed time plans, Protein – HBV and discuss amino acids, Fats – saturated, Recap on vitamins and minerals , Trace element – iodine Effect on nutritional content from processing Dietary considerations bone health, allergies: Lactose intolerance from cow milk (why?) What are the alternatives? heart health: at content and type, Chemical and physical</p>	<p>staple food, impact of crop failure on health of a nation, general structure of grain – endosperm, germ and bran, milling of wheat into flour, secondary processing, breakfast cereals, sugar and salt content , link in food labelling on packaging – how healthy are the cereals? Function of packaging and environmental impact, marketing, bread types, pasta, range of cereals grown and eaten across the world , Wheat – wholemeal, white, self-raising, semolina, etc. Rice – brown, white, basmati, Arborio, rice flour, rice vinegar, etc. Oats – rolled, oatmeal, etc. gluten-free flour Nutritional values , primary source of carbohydrate, Energy requirements (link to different groups) balance of energy input with energy output Nutrient requirements Carbohydrate – starch Dietary fibre (NSP: non-starch polysaccharide) – soluble and insoluble, B vitamins, effect of nutrient absorption due to presence of phytates Principal of fortification of food in the context of flour and breakfast cereals,</p>	<p>chicken curry <a href="#">Keywords/terminology/concepts</a> compare geographical areas where meat, fish, poultry and eggs are reared/produced, local verses imported, north sea fishing verses southern hemisphere fishing, local eggs verses imported eggs from Europe, sea fish and farmed fish, fish quotas and availability/ethical fishing – Marine Stewardship Council, etc.) Intensive farming verses natural farming, animal welfare, animal feed (can reference BSE) and shelter How fish (including shellfish) is caught, poultry (including eggs) – how poultry is reared and slaughtered/how egg farming is conducted (different animal sources as well as hens eggs), game, cuts of meat and poultry, processing into bacon, ham, sausages, pies, etc. methods of preservation, offal, cuts of fish, Eggs, pasteurised whole/white/yolk , methods of cooking tender versus tough cuts, and cost, gelatine Categories of fish, canned, smoked, etc. Protein (HBV), Saturated</p>	<p>Storage (rough puff pastry, tarte tin tin, potato salad, coleslaw, mayonnaise, meringues, <a href="#">Keywords/terminology/concepts</a> Food miles (UK verses imported raw materials to make the butter, oil, margarine) Where is sugar cane and sugar beet grown? Organic verses non-organic, GM, Butter, oils, margarine Butter – how is butter made? Oils/margarine – growing of vegetable crop for oil production, include pressing, fish oil Processing of margarine – different oil types used, fortification, Sugar and syrup Cane and beet (climate requirements), refining process, making syrup, Primary processing: Oil, sugar Secondary processing: Butter, margarine, sugar syrups, animal and vegetable fats, Hard and liquid fats, mention lard and suet, Margarine – different oil bases, Is margarine healthy? hydrogenation, monosaccharides and disaccharides, substitutes, energy dense, Saturated and unsaturated fats, empty calories, link to weight gain, obesity, dental caries, type 2 diabetes, Free</p>	<p>grown climate, soil types Organic verses non-organic, Food miles Seasonality, Soya, tofu How soya beans are cultivated, processed into tofu, TVP (textured vegetable protein), How beans (pulses/legumes), nuts and seeds are grown, mycoprotein (Quorn TM) – what it is derived from, how it is processed, Secondary processing: Beans (legumes), drying and canning, Nuts – ground, flaked, nibbed, etc. Seeds – drying, etc. Soya products – milk, yoghurt, TVP, tofu, tempeh Beans (legumes) – red kidney, black eyed, aduki, etc. Nuts – brazil, cashew, almonds, etc. discussion on 14 allergens, Seeds – sesame, poppy, caraway, Protein, amino acids, HBV source, LBV source Complementing proteins High in fibre and other nutrient sources Nuts – high in good fats Fibre source –soluble and insoluble, nuts as a thickener, keep nuts away from other food sources – risk of allergen contamination nut storage relating to rancidity, chilled, frozen, ambient, and discuss</p>
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<p>Graded according to 9-1 Provenance Guide on own choice fruit or vegetable, Mock NEA Assessment, End of module test</p> <p><b>SMSC learning opportunities:</b> ethical impact of food production, cost of food related to food choices, healthy diets, multicultural cuisine</p> <p><b>Key resources</b> Usual kitchen equipment, spare ingred for DP, information sheets, podcasts, herbs/spices, ingredients for taste tests and assessments</p> <p><b>G&amp;T challenge</b> See individual lessons for challenge, e.g. differentiated end of module test and assessment format</p> <p><b>National Curriculum (Key Competencies)</b> Understand that their need for water is affected by many factors, especially hot weather and levels of physical activity, and be aware of the consequences of dehydration.</p>	<p>structure of dairy based products, Emulsion, Denaturation and coagulation of milk proteins. Use of rennet (curds and whey). Benefits of bacteria in the making of yoghurt, cheese, etc. Effect of heat on cheese, food hygiene and safety Concept of high risk , How bacteria multiplies, How to avoid cross-contamination, Why heat treating raw milk is important</p> <p><b>Summative Assessment</b> Graded according to 9-1 Exam questions on secondary processing , time plan for own dish, Mock NEA Assessment,</p> <p><b>SMSC learning opportunities</b> ethical impact of food production, cost of food related to food choices, healthy diets, multicultural cuisine</p> <p><b>Key resources</b> Usual kitchen equipment, spare ingred for DP, information sheets, podcasts, herbs/spices, ingredients for assessments, jars for butter making, muslin, griddles</p> <p><b>G&amp;T challenge</b> See individual lessons for challenge, e.g. differentiated exam questions, time plan</p>	<p>Importance of whole grains to reduce risk of heart disease, type 2 diabetes and control blood cholesterol Link to effect of low-fibre diet: Haemorrhoids, diverticulitis, cancer of the colon Deficiencies: Beriberi – lack of thiamin (vitamin B1) Pellagra – lack of niacin (vitamin B3) Coeliac disease Chemical and physical structure of cereal grains Gluten formation, gelatinisation, coagulation, dextrinisation, Retrogradation, Gels Bread making, Scientific principles, including problem solving, Chorleywood , Vitamin C (ascorbic acid) in large scale bread manufacturing Yeast , Concept of low risk foods (exception includes cooked rice) Food spoilage – mould, etc. Food safety issues with cooked rice</p> <p><b>Summative Assessment</b> Graded according to 9-1 Task analysis for design brief (coeliac), dietary guide for this food group, mock NEA assessment</p> <p><b>SMSC learning opportunities</b> ethical impact of food production, cost of food related to food choices,</p>	<p>fat, B vitamins, Iron Trace element – iodine and fluoride in fish and shellfish, Health benefits of eating fish, Omega 3 in oily fish, Implications of excess or deficiency of protein, Healthy blood – iron (haem and non-haem iron), Iron deficiency, religious considerations when eating meat, Chemical and physical structure of meat, fish, poultry and Eggs, Denaturation, Coagulation, Foaming , Aeration, Connective tissue, Maillard reaction High risk foods – link to specific food poisoning bacteria, correct storage temperatures, How to tell if meat is 'off', How to tell fish is fresh Lion mark)</p> <p><b>Summative Assessment</b> Graded according to 9-1 Meat, fish, eggs, presentation, Mock NEA Assessment, method of research- questionnaire</p> <p><b>SMSC learning opportunities</b> ethical impact of food production, cost of food related to food choices, healthy diets, multicultural cuisine</p> <p><b>Key resources</b> Usual kitchen equipment, spare ingred for DP,</p>	<p>sugars, implications of a diet high in saturated fat, Making sensible choices on fat type, Lower fat alternatives, Fat soluble vitamins, chemical and physical structure, Plasticity, Shortening Emulsification, Melting point/smoke point Caramélisation, storage relating to rancidity, foreign bodes, pests, Where should butter and margarine be stored? chilled food temperatures, effect of light on quality and longevity of oil, why is humidity a consideration, crystallisation, sensory analysis</p> <p><b>Summative Assessment</b> Graded according to 9-1 Research 2 -Product analysis, Reasons for choice, end of unit test</p> <p><b>SMSC learning opportunities</b> ethical impact of food production, cost of food related to food choices, healthy diets, multicultural cuisine</p> <p><b>Key resources</b> Usual kitchen equipment, spare ingred for DP, information sheets, podcasts, herbs/spices, samples of butter, fats &amp; oils, sugars &amp; syrups, oven proof tins, electric whisks, eggs, nutrition program</p>	<p>suitable storage</p> <p><b>Summative Assessment</b> Graded according to 9-1 Mock Exam &amp; reasons for choice of recipe</p> <p><b>SMSC learning opportunities</b> ethical impact of food production, cost of food related to food choices, healthy diets, multicultural cuisine</p> <p><b>Key resources</b> Usual kitchen equipment, spare ingred for DP, information sheets, podcasts, herbs/spices, cake tins, freezer, samples of nuts, beans, pulses, nuts etc, tofu, tvp, quorn</p> <p><b>G&amp;T challenge</b> See individual lessons for challenge, e.g. differentiated reasons for choice guidance, combination dietary choice e.g., active, pregnant woman</p> <p><b>National Curriculum</b> Make informed choices about food and drink in order to achieve a healthy, varied and balanced diet. Know about food poisoning, its symptoms and preventative measures (all terms)</p>
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					generate different improvements in physical capacity. Stay well hydrated when being physically active.	
Year 11	<p>Timescale- 7 weeks</p> <p><b>Learning Focus</b></p> <p><b>NEA 1 Food Investigation Assessment - released by exam board 1<sup>st</sup> September</b></p> <p>Skill/knowledge development</p> <p>Recap on key principles of how to conduct NEA research methods, hypothesis setting, plan of action, writing up an experiment, analysis results of experiment and drawing conclusions, referencing sources</p> <p>Keywords/terminology/concepts</p> <p>See previous food science lessons</p> <p>Summative Assessment</p> <p>Graded according to 9-1</p> <p>Internally moderated</p> <p>SMSC learning opportunities?</p> <p>Key resources</p> <p>Ingredients &amp; equipment for experiments, computers</p> <p>G&amp;T challenge</p> <p>Pupils choose own scale of challenge when designing investigation</p> <p>National Curriculum</p> <p>(see key competencies for previous term)</p>	<p>Timescale- 7 weeks</p> <p><b>Learning Focus</b></p> <p><b>NEA 2 Food Preparation Assessment - released by exam board 1 November</b></p> <p>Skill/knowledge development</p> <p>planning diets linked to nutritional requirements, cultural foods</p> <p>Research methods – a range to be conducted and analysed, plan of action, justifying choices, requisitions, time plan, evaluation (including sensory analysis)</p> <p>Keywords/terminology/concepts</p> <p>See previous years work</p> <p>Summative Assessment</p> <p>Graded according to 9-1</p> <p>Internally moderated</p> <p>SMSC learning opportunities</p> <p>ethical impact of food production, cost of food related to food choices, healthy diets, multicultural cuisine</p> <p>Key resources</p> <p>Ingredients for DP &amp; equipment, computers</p> <p>G&amp;T challenge</p> <p>Pupils choose own scale of challenge when designing response to brief</p> <p>Key resources</p> <p>Ingredients for DP &amp; equipment, computers</p> <p>G&amp;T challenge</p> <p>Pupils choose own scale of challenge when designing response to brief</p>	<p>Timescale- 6 weeks</p> <p><b>Learning Focus</b></p> <p><b>Continue NEA 2 Food Preparation Assessment</b></p> <p>Skill/knowledge development</p> <p>See Year 11 Autumn Term 2</p> <p>Keywords/terminology/concepts</p> <p>See previous years' work</p> <p>Summative Assessment</p> <p>Graded according to 9-1</p> <p>Internally moderated</p> <p>SMSC learning opportunities</p> <p>ethical impact of food production, cost of food related to food choices, healthy diets, multicultural cuisine</p> <p>Key resources</p> <p>Ingredients for DP &amp; equipment, computers</p> <p>G&amp;T challenge</p> <p>Pupils choose own scale of challenge when designing response to brief</p> <p>National Curriculum</p> <p>Be able to change recipes and dishes to make them healthier and more appealing by altering ingredients, and/or by using different cooking methods, e.g. using herbs instead of salt, using low fat</p>	<p>Timescale- 6 weeks</p> <p><b>Learning Focus</b></p> <p><b>Complete NEA 2 Food Preparation Assessment (2 week)</b></p> <p>focus on areas not covered sufficiently in Year 10,</p> <p>Skill/knowledge development</p> <p>Unknown</p> <p>Keywords/terminology/concepts</p> <p>See previous years' work</p> <p>Summative Assessment</p> <p>Graded according to 9-1</p> <p>Mock exam</p> <p>SMSC learning opportunities</p> <p>ethical impact of food production, cost of food related to food choices, healthy diets, multicultural cuisine</p> <p>Key resources</p> <p>Ingredients for DP &amp; equipment, computers</p> <p>G&amp;T challenge</p> <p>Unknown</p> <p>National Curriculum</p> <p>Be able to change recipes and dishes to make them healthier and more appealing by altering ingredients, and/or by using different cooking methods, e.g. using herbs</p>	<p>Timescale- 6 weeks</p> <p><b>Learning Focus</b></p> <p>Revision and Exam skills</p> <p>Skill/knowledge development</p> <p>See all previous terms</p> <p>Keywords/terminology/concepts</p> <p>See all previous terms</p> <p>Summative Assessment</p> <p>Graded according to 9-1</p> <p>Mock exam practice</p> <p>SMSC learning opportunities ethical impact of food production, cost of food related to food choices, healthy diets, multicultural cuisine</p> <p>Key resources</p> <p>Revision activities</p> <p>G&amp;T challenge</p> <p>Differentiated tasks</p> <p>National Curriculum</p> <p>(see key competencies for previous term)</p>	<p>Timescale- 6 weeks</p> <p><b>Learning Focus</b></p> <p>Skill/knowledge development</p> <p>Keywords/terminology/concepts</p> <p>Summative Assessment</p> <p>Graded according to 9-1</p> <p>SMSC learning opportunities</p> <p>Key resources</p> <p>G&amp;T challenge</p> <p>National Curriculum</p>

		<b>National Curriculum</b> Apply skills and understanding competently to plan, prepare and safely cook dishes and menus for a healthy, varied and balanced diet.	yogurt, grilling instead of frying.	instead of salt, using low fat yogurt, grilling instead of frying.		
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