Kirk Hallam Community Academy Design & Technology Learning Overview

	HT1	HT2	HT3	HT4	HT5	HT6
Year 7	Students spend approximately 8 weeks completing each discipline during the academic year. There are 5 disciplines and each builds on skills and knowledge to develop independent, confident learners. **Graphics** – isometric and perspective drawing skills **Electronics** – construct a nightlight and casing **Food Technology** – practical skills and knowledge **Resistant Materials** – use manufactured board, acrylic and timber through practical tasks in the workshop **Textiles** – students learn and apply hand sewing skills through a practical task.					
Year 8	Students spend approximately 8 weeks completing each discipline during the academic year. There are 5 disciplines and each builds on skills and knowledge to develop independent, confident learners. **Graphics** – rendering and branding **Electronics** – construct a torch and casing **Food Technology** – practical skills and knowledge **Resistant Materials** – use metals and heat treatment processes **Textiles** – students learn and apply hand and machine sewing skills through a practical task.					
Year 9	Students spend approximately 8 weeks completing each discipline during the academic year. There are 5 disciplines and each builds on skills and knowledge to develop independent, confident learners. **Graphics** – rendering and branding **Engineering** – construct a clock **Food Technology** – practical skills and knowledge **Resistant Materials** – use metals and heat treatment processes **Textiles** –students learn and apply hand and machine sewing skills through a practical task.					
Year 10	**Papers and Boards & Desk Tidy** New and emerging technologies, Energy Sources Paper and boards	**Metals & Key Fob** Ferrous, non-ferrous metals, alloys, sources, raw materials	**Timbers & Pencil Box** Hardwoods, softwoods, manufactured boards, sources.	**Plastics & Key Ring Compression** Project Thermoplastic, thermosetting plastic	**Textiles/Systems & Skills and Circuitry** Natural and Synthetic textiles, woven and non-woven textiles	NEA – A01
Year 11	**NEA** – Design Development and Manufacturing specification Polymers and their properties, forces and stresses	**NEA** - Manufacture of Prototype New and emerging technologies Mechanical devices	**NEA** - Manufacture of Prototype and Evaluation Energy generation and storage, ecological and social footprint	**NEA Improvements** Surface treatments and finishes, the work of others, specialist tools and equipment	**Examinations**	**Examinations**
Year 12	**Focussed Practical Task (Practical Sills Based)** Material: Applications, Testing and Performance characterises	**Focussed Practical Task (Practical Sills Based)** Sustainable Design: Circular economy. Materials: Performance Characteristics	**Product Investigation Project Product/performance Analysis** Materials: Forming, redistribution and addition processes	**Lamp Design Project** Designing: Design movements and communication Materials: Working with	**Lamp Design Project** Designing: Iterative design and product development Materials: Working with	**NEA: Investigation** Materials: Working with
Year 13	**NEA:** Brief and Specification, Development of design proposal(s) Product Design and Development	**NEA**: Development of design prototype(s) Design and Manufacture	**NEA**: Design prototype(s) Analysing & Evaluating Commercial Practices	**NEA**: Improvements Exam Preparation	**Examinations**	**Examinations**

Kirk Hallam Community Academy Food Technology Learning Overview

	HT1	HT2	HT3	HT4	HT5	HT6
Year 7	**Food Technology** – practical skills and knowledge. The purpose of this year is to introduce students to the nutrients that are provided by the Eatwell guide, including Macro and Micro-nutrients. They will learn their role in the body as well as the sources of food that provide the nutrients. Students will have the opportunity to cook with the major food groups. Their knowledge of nutrients will be applied in the production of a dish that they design and an end of unit test. Through a series of theory and practical lessons students will build up their knowledge on food safety and we will introduce them to using equipment in the food room. Pupils develop skills in Weighing and measuring, Grilling, Slicing and dicing using bridge hold and claw grip, Combining ingredients. Fruit preparation- peeling, slicing, Rubbing in, Sauce making– Reduction, Forming, shaping and rolling a dough, Kneading, use of oven					
Year 8	**Food Technology** – practical skills and knowledge. The purpose of this unit is to introduce students to the factors that affect food choice. Whether that be cultural influences, allergies and intolerances or ethical factors. The functions of ingredients will be explored through making and investigations. Their knowledge of nutrients will be applied in the production of a dish that they design. Skills will be developed in Setting up a fair test for an Investigation. Sauce making– Reduction, Finishing techniques– Glazing, rolling, Forming and cooking a batter, Kneading, Use of frying pan– dry fry and frying using fat, Forming, shaping and rolling a dough. Through a series of theory and practical lessons students will build up their knowledge and understanding of cultural food and the functions of ingredients in bread making will be investigated through research and experiments. Students' nutritional knowledge will also be tested in the designing of a dish and tested in an end of unit test.					
Year 9	**Food Technology** – practical skills and knowledge The purpose of this unit is to recap on nutrient knowledge and to apply it to a specific life stage to design a product. Students also get a taste of how to set up experiments based on their knowledge of food science to replicate what is needed at KS4. Skills developed will include Weighing and measuring, Sauce making– Gelatinisation, Use of specialist equipment, pasta machine, electric whisk, food processor, Forming, shaping and rolling a dough, Rubbing in, using aeration in cooking, Finishing techniques, glazing and rolling, Setting up a fair test for an Investigation. Through a series of theory and practical lessons, students will build up their knowledge and understanding of food science (specifically raising agents) and apply this to a mini NEA project. Students' nutritional knowledge will also be tested to apply to a specific life stage and their theory will be tested in an end of unit test.					
Year 10	**Food, Nutrition and Health** During this half term they focus on the Eatwell Guide and look at the importance of: • Calories, RI and Energy • Carbohydrates • Protein • Fats • Water • Fibre • Vitamins	**Food, Nutrition and Health** Students look at what factors have an impact on our dietary needs including • religion, health conditions and age. • What are Special Diets + Life Stages • Medical Conditions • Obesity • Allergies and Intolerance • Ethical Diets	**Food Science** Students investigate how cooking methods change our foods, as well as looking at the functional chemical properties of different ingredients. • Cooking Methods • Components of Food • Heat Transfer • Processes (including gelatinisation & caramelisation)	**Food Science** Students finish off the last half term's topic; investigating how cooking methods change our foods, as well as looking at the functional chemical properties of different ingredients. • Protein Denaturing • Raising Agents • Enzymic Browning	**Food Safety** Students learn about food spoilage and contamination, how to check food and understanding rules and regulations. • Causes of Ill Health • Food Safety Legislation • Food Poisoning	**Food Choices and Provence** Students look at a range of factors that impact our food choices including: • different cuisines, social media, and airmiles. • Growing Produce, Farming Methods • Food Miles & Carbon Footprint • Food Waste and Packaging • Factors Affecting Food Choice • Marketing • Traditional Cuisines • Food Production
Year 11	Students will be introduced to Internally Assessed Food Investigation (NEA 1) and complete practical and experimental work investigating function & application of ingredients. This accounts for 15% of the GCSE.	Students will be introduced to and begin an Internally assessed Food Preparation Assessment (NEA 2) and will be required to cook 3 dishes plus accompaniments in 3 hours and produce written work to support this. It will be based on a theme set by exam board in November. Accounts for 35 % of GCSE	Pupils will continue to work on the NEA 2 which requires pupils to cook 3 dishes plus accompaniments in 3 hours and produce written work to support this. It will be based on a theme set by exam board in November. Accounts for 35 % of GCSE	Revision of knowledge for written exam: 1 hour 45 minutes 100 marks 50% of GCSE Using revision guides, past papers and electronic resources revise all topics for their final examination.	Examinations	Examinations