ASHTON COMMUNITY SCIENCE COLLEGE: DESIGN & TECHNOLOGY

Year 10 Food Preparation and Nutrition - AQA

	Half term 1	Half term 2	Half term 3	Half term 4	Half term 5	Half term 6
Knowledge	Topic: ▪ Nutrition, Diet and Health	Topic: ▪ Nutrition, Diet and Health ▪ Food Science	Topic: ▪ Food Science	Topic: ▪ Food Safety	Topic: ▪ Food Choices	Topic: ▪ Food Provenance
Skills/ application of knowledge	▪ Advanced knife skills ▪ Protein cookery ▪ Use of blender and food processor ▪ Cooking methods experiment	▪ Advanced Breads ▪ Shortcrust and puff pastry ▪ Pastry experiments	▪ Meringues ▪ Foam experiment (mini NEA1) ▪ Marinades ▪ Emulsions ▪ Sponge	▪ Flatbreads ▪ Pasta ▪ Homemade cheese ▪ Chicken portioning ▪ Choosing and adapting recipes	▪ International cuisine research and mini NEA2 ▪ Layered dishes – cottage pie, fruit tarts	▪ Gelatine set dessert ▪ Using seasonal foods – jam ▪ Time planning
Links to prior learning	Y7/8/9 practicals Y9 Protein foods Y9 Macronutrients	Y8 Breadmaking Y9 Empanadas	Y9 Sugar in Cakes experiment	Y7 H&S Y8 4Cs Y9 Food poisoning	Y9 Religion and food Y9 Global recipes	Y7 Egg provenance Y8 Staple Foods Y9 Dairy provenance
assessment	Practical - Lasagne	End of unit test – Nutrition Practical – Bakewell Tart	End of unit test – Food Science Mini NEA1 - foams	Practical – own choice chicken dish	End of unit test – Food Safety Mini NEA2 – International food	Written exam paper 2 hr practical– plan, prepare and present 2 dishes

Year 11 Food Preparation and Nutrition - AQA

	Half term 1	Half term 2	Half term 3	Half term 4	Half term 5	Half term 6
Knowledge	Topic: ▪ NEA1(Food Science investigation)	Topic: ▪ Complete NEA1 ▪ Start NEA2 (Food Preparation task)	Topic: ▪ NEA2	Topic: ▪ NEA2	Topic: ▪ Revision	Topic: ▪ Revsion
Skills/ application of knowledge	▪ High level skills boost ▪ Practise NEA1	▪ NEA2 skills – research/ time planning/ evaluating	▪ NEA2	▪ NEA2	▪ Exam technique	▪ Exam technique
Links to prior learning	Y10 knife skills, pastry, sauces Y10 Food science investigations	Y10 scheme of work	Y10 Scheme of work	Y10 Scheme of work	Y10 Scheme of work	Y10 Scheme of work
assessment	Ongoing NEA1	Ongoing NEA1/ NEA2 Mock written paper	Ongoing NEA2	Ongoing NEA2 Mock written paper	Practice exam questions	GCSE exam

Year 10 Design and Technology - Eduqas

	Half term 1	Half term 2	Half term 3	Half term 4	Half term 5	Half term 6
Knowledge	Topic: **Material categories and properties** ▪ Paper & Boards ▪ (Mould & Deckle) ▪ Natural and manufactured timbers ▪ Kerfing ▪ Ferrous & Non ferrous metals ▪ Metal dog tag ▪ Thermoforming & Thermosetting polymers ▪ Plastic shaping ▪ Natural & synthetic fibres ▪ Natural & synthetic fibres – Weaving **Timbers** ▪ Sources, origins & properties ▪ Social & ecological issues ▪ Material costs ▪ Production ▪ Reinforcing & Stiffening ▪ Wastage & Addition ▪ Chiselling block task ▪	Topic: **Timbers** ▪ Joining Methods ▪ Wood processes ▪ Wood joints **Developments in new materials.** ▪ Composite Materials ▪ Technical Textiles ▪ Smart Materials ▪ Modern Material **Salad server** ▪ Analyse & Research ▪ Drawing techniques ▪ Template & prototype ▪ Forming, cutting & drilling salad server	Topic: **Nut cracker** ▪ Analyse & Research ▪ Design and develop ▪ Manufacture prototype ▪ Test and evaluate **Mini GCSE project** ▪ Set up TEAMS Create a moodboard ▪ Analyse project ▪ Analyse boxes ▪ Design brief ▪ Specification ▪ 2 point perspective ▪ Rendering ▪ Design idea ▪ Development ▪ Prototype ▪	Topic: **Mini GCSE project** ▪ Manufacture of box ▪ Applying a finish on the box ▪ Testing & Evaluation **Online learning** ▪ **NearPOD -** Critical evaluation of new and emerging technologies: sustainability and the environment ▪ **NearPOD -** Energy generation and storage: fossil fuels ▪ **NearPOD -** Energy generation and storage: renewable energy sources ▪ **NearPOD -** Energy generation and storage: nuclear power ▪ **NearPOD -** Energy generation and storage: energy storage ▪ **NearPOD** - The impact of new and emerging technologies: industry, enterprise, people, culture and society ▪ **NearPOD** - The impact of new and emerging technologies: product life cycle	Topic: ▪ **NearPOD** - Electronic systems and programmable components – feedback and control devices ▪ **NearPOD** - Electronic systems and programmable components – input and output devices ▪ **NearPOD** - Electronic systems and programmable components – processes and microcontrollers ▪ **NearPOD** - Mechanical components and devices – Rotary systems ▪ **NearPOD** - Mechanical components and devices – types of movement ▪ **NearPOD** - Mechanical components and devices – types of movement ▪ Electronics task ▪ CAD task ▪ Mechanism task	Topic: ▪ Exam board Eduqas release the contextual challenges ▪ Investigate the contextual challenges to identify a problem and a creative solution ▪ GCSE Coursework – Generate sketches from the analysis ▪ GCSE Coursework – Generate design briefs from the analysis ▪ GCSE Coursework – Generate a specification from the analysis ▪ GCSE Coursework – Generate initial ideas

				▪ **NearPOD** - The impact of new and emerging technologies: production techniques ▪		
Skills/ application of knowledge	▪ Workshop tools and equipment. ▪ Kerfing with manufactured wood. ▪ Analysing existing products. ▪ Inclusive Designing. ▪ Cutting, drilling and bending plastics. ▪ Workshop skills using tools and equipment. ▪ Shaping, smoothing and polishing metal (dog tags). ▪ Marking and measuring out. ▪ Identifying materials. ▪ Recycling paper. ▪ Weaving ▪ Finishing techniques.	▪ Workshop tools and equipment. ▪ Analysing existing products. ▪ Chiselling and making wood joints. ▪ Workshop skills using tools and equipment. ▪ Marking and measuring out. ▪ Using permanent and non-permanent joining methods. ▪ Identifying materials. ▪	▪ Using Ergonomics and Anthropometric data. ▪ Workshop tools and equipment. ▪ Designing from Research. ▪ Analysing existing products. ▪ Inclusive Designing. ▪ Cutting, drilling and bending plastics. ▪ Workshop skills using tools and equipment. ▪ Marking and measuring out. ▪ Identifying materials. ▪ 1 point and 2 point perspective drawing techniques. ▪ Shading and rendering techniques. ▪ Finishing techniques.	▪ **Core - Breadth of Understanding:** ▪ design and technology and our world ▪ smart materials ▪ electronic systems and programmable components ▪ mechanical components and devices ▪ materials ▪	▪ **Core - Breadth of Understanding:** ▪ design and technology and our world ▪ smart materials ▪ electronic systems and programmable components ▪ mechanical components and devices ▪ materials ▪	▪
Links to prior learning	KS3 program of study – the national curriculum for Design and Technology	KS3 program of study – the national curriculum for Design and Technology	KS3 program of study – the national curriculum for Design and Technology	KS3 program of study – the national curriculum for Design and Technology	KS3 program of study – the national curriculum for Design and Technology	KS3 program of study – the national curriculum for Design and Technology
assessment	DC1a written theory exam	DC1b written theory exam	DC1c written theory exam	Nearpod online assessments on completion of tasks.	DC2 mock exam paper	NEA

ASHTON COMMUNITY SCIENCE COLLEGE: DESIGN & TECHNOLOGY

Year 11 Design and Technology - Eduqas

	Half term 1	Half term 2	Half term 3	Half term 4	Half term 5	Half term 6
Knowledge	Topic: **Component 2: Design and make task** **Non-exam assessment** ▪ **approximately 35 hours 50% of qualification**	Topic: **Component 2: Design and make task** **Non-exam assessment** ▪ **approximately 35 hours 50% of qualification**	Topic: **Component 2: Design and make task** **Non-exam assessment** ▪ **approximately 35 hours 50% of qualification**	Topic: ▪ **Component 1: Design and Technology in the 21st Century Written examination preparation**	Topic: ▪ Revision	Topic: ▪
Skills/ application of knowledge	▪ Developing workshop skills when using tools and equipment. ▪ Marking and measuring out using measuring equipment. ▪ Learning CAD skills using 2D design. ▪ Develop design thinking skills to generate ideas. ▪ Applying appropriate finishes to materials. ▪ Develop design techniques to communicate design ideas.	▪ Developing workshop skills when using tools and equipment. ▪ Marking and measuring out using measuring equipment. ▪ Learning CAD skills using 2D design. ▪ Develop design thinking skills to generate ideas. ▪ Applying appropriate finishes to materials. ▪ Develop design techniques to communicate design ideas.	▪ Developing workshop skills when using tools and equipment. ▪ Marking and measuring out using measuring equipment. ▪ Learning CAD skills using 2D design. ▪ Develop design thinking skills to generate ideas. ▪ Applying appropriate finishes to materials. ▪ Develop design techniques to communicate design ideas.	▪ technical principles designing and making principles, along with their ability to analyse and evaluate design decisions and wider issues in design and technology.	▪	▪
Links to prior learning	▪ design and technology and our world ▪ smart materials ▪ electronic systems and programmable components ▪ mechanical components and devices ▪ materials Natural & manufactured timbers	▪ design and technology and our world ▪ smart materials ▪ electronic systems and programmable components ▪ mechanical components and devices ▪ materials Natural & manufactured timbers	▪ design and technology and our world ▪ smart materials ▪ electronic systems and programmable components ▪ mechanical components and devices ▪ materials Natural & manufactured timbers	▪ design and technology and our world ▪ smart materials ▪ electronic systems and programmable components ▪ mechanical components and devices ▪ materials Natural & manufactured timbers		
assessment	AO1 Identify, investigate and outline design possibilities to address needs and wants **10%** AO2 Design and make prototypes that are fit for purpose **30%**	AO1 Identify, investigate and outline design possibilities to address needs and wants **10%** AO2 Design and make prototypes that are fit for purpose **30%**	AO1 Identify, investigate and outline design possibilities to address needs and wants **10%** AO2 Design and make prototypes that are fit for purpose **30%** AO3 Analyse and evaluate: design decision and outcomes including for prototypes made by themselves and others wider issues in design and technology **10%** Mock exam **50%**	AO1 Identify, investigate and outline design possibilities to address needs and wants **10%** AO2 Design and make prototypes that are fit for purpose **30%** AO3 Analyse and evaluate: design decision and outcomes including for prototypes made by themselves and others wider issues in design and technology **10%** Mock exam **50%**		