CHS South Curriculum Intent

SUCCESSFUL: An education where imagination, curiosity and resilience enable us to ignite our learning.

CREATIVE: A shared belief that optimism, empathy and responsibility are the foundations for a respectful, safe and inclusive community.

HAPPY: Individuals who are ready to learn, practise being reflective, and are motivated to become champions.

CHS South Curriculum Area Framework for Learning – Year 9

SUBJECT	Computer Science
INTENT	In Computer Science students will develop knowledge and understanding of key computing topics that will prepare them for their future studies in Computing. During Year 9 students will: • Develop knowledge of computer systems and be able to identify the components that make up these systems. • Explore Computer Networks and be able to explain the difference between different network types and topologies • Examine the impact of modern technology and what can be done to reduce the impact • Develop a range of programming skills which they will use to write programs to meet a given scenario. • Develop knowledge and understanding of the system architecture and be able to explain the different components in the CPU and what impacts the CPU performance. • Be able to explain the different between primary and secondary storage and their roles in the computer. • Develop a knowledge of units of data and be able to calculate the files sizes of different documents • Be able to effectively calculate using binary • Examine the operating system and utilities software and be able to explain their role in the computer. • Be able to identify ethical, legal, cultural and environmental impact of computer and apply this knowledge to a range of questions • Be able to explain abstraction, decomposition and algorithmic thinking and be able to use it effectively to develop programs.

Year Group	Year 9 Computer Science
Rationale/ Narrative	Following on from their Year 7 and 8 study, students will be taught topics that overlap between the Computer Science and current DIT qualifications throughout their "Common Term". Students following the Computer Science route will then move on to build up foundational knowledge alongside their programming skills. **Common Term** - During Autumn term, students will begin by studying the **impact of modern technologies**, this relates largely to how students have engaged with School over the past academic year and students will gain a deeper knowledge in how organizations and individuals use modern technologies to exchange information, communicate and complete work-related tasks, as well as access and manipulate data. - It is vital students understand the implication of these tools and technologies so students will move onto looking at the **legal impact and ethical considerations** as well as the wider implications of digital systems and their use. Students will look at how legislation covering data protection, computer crimes and intellectual property has an impact on the way digital systems are used. - Following on from this, Students will begin to understand the increased reliance of digital systems and its need to hold onto data and the nature of threats to data through looking at **Cyber Security**, ways in which computer systems are attacked, how they occur and potential impact of breaches as well as preventative measures. - Students will revisit **programming** (part of their common term) and build upon this knowledge to create an authorized login system as part of a programming project. - Students will be introduced to Graphical User Interfaces (GUI's) through studying **User Interfaces** as part of Autumn 2, and will understand the different types of user interfaces used by individuals and organisations. They will investigate how Graphical User Interfaces differ from a range of other interfaces, (such as text based interfaces, making reference to their login system program), alongside **how hardware and software** influence User Interface design. **Year 9 Computer Science** **1.1 Systems Architecture:** Students will learn about the architecture of the CPU, alongside CPU performance and embedded systems. **1.2 Memory & Storage:** Students will look at both Primary storage (Memory) and Secondary storage and will learn about the basics of how computers represent different information; including numbers, characters, images, sound **1.3 Computer Networks, Connections & Protocols:** Following on from looking at Network security in Autumn, students will begin to look at Networks and different topologies, alongside wired and wireless networks.

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	1.5 System Software: Students will look at what each function of the operating system does, and understand that computers come with utility software – the purpose of this and why it is required. **1.6 Ethical, cultural, legal and environmental concerns:** students will have the opportunity to learn about and discuss different issues in computing. This will give them the initial understanding needed to approach long mark questions in Y11, but it will not focus on exam technique. **2.1 Algorithms:** here students will learn how to read and write pseudocode and flowcharts. This will tie in heavily to their programming skills. They will complete a mini programming project.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
KNOWLEDGE	• Introduction to Computer Systems & Networks • Impact of modern technologies • Legal impact and Ethical considerations • Cyber Security	• Programming • User Interface Design • Hardware & Software	• 1.1 Systems Architecture - Architecture of CPU - CPU Performance - Embedded Systems • 1.2 Memory and Storage - Primary Storage - Secondary Storage	• Units/Binary • Data Storage ○ Characters ○ Images ○ Sound • Compression • 1.5 System Software • Operating Systems • Utility Software	• 1.3 Computer Networks, Connections & Protocols • Networks & Topologies • Wired & Wireless Networks (Protocols & Layers in Year 10) • 1.6 Ethical, Legal, Cultural & environmental impacts of digital technology	• Algorithms - Computational Thinking
SKILLS	• Evaluation skills • Metacognitive practice • Identifying and selecting information • Breaking down key information	• Evaluation skills • Metacognitive practice • Exam technique • Identifying and selecting information • Breaking down key information **Programming skills**: • Identifying and using variables • Using operators • Using inputs	• Evaluation skills • Metacognitive practice • Exam technique • Identifying and selecting information • Breaking down key information	• Evaluation skills • Metacognitive practice • Exam technique • Identifying and selecting information • Breaking down key information • Analytical Skills • Maintenance • System Performance • Critical Thinking	• Evaluation skills • Metacognitive practice • Exam technique • Identifying and selecting information • Breaking down key information • Debating • Analysis • Evaluation	• Evaluation skills • Metacognitive practice • Exam technique Computational thinking **Programming skills**: • Identifying and using variables • Using operators • Using inputs • Using outputs • Using sequence

		• Using outputs • Using sequence • Using selection		• Converting binary to denary • Converting denary to binary • Converting hex to denary • Converting denary to hex • Converting hex to binary • Converting binary to hex • Logical reasoning. • Metacognitive practice		• Using selection **Programming skills**: • Using iteration (for loops) • Using iteration (while loops) • Using different types of data appropriately Using basic string manipulation
ASSESSMENTS	• Assessed Questions – Impact of technology – KS4 style Exam Question	• Classwork Piece – Students to have their final login program assessed from their programming project - **KAP** • Progress Test based on content covered during Autumn term formally assess understanding and knowledge – KAP • User Interface analysis assessment - KAP	• Architecture of CPU (VN) OCR Exam style question as **KAP** • Units/Binary OCR Exam Style question as **KAP**	• CGP OCR Exam Practice Workbook Questions – Secondary Storage - **KAP** • Progress Test – Formal assessment of understanding and knowledge from 1.1 Systems Architecture & 1.2 Memory and Storage (alongside network questions from Autumn Term) • Extended Networks Exam style question **KAP**	• KAP • KAP	• KAP- Computational thinking, four cornerstone exam question with algorithm exam question. • Progress Test – Programming techniques Assessment. • OCR Computer Science Paper 2 [6/8] mark question.
HOME LEARNING	• HL1 – Extended Question from DIT C3: effective Digital Working Practices *Extended Question* • HL2 – Legal & Ethical Considerations DIT/CS *Extended Question* • HL3 Reading and Low Stakes Test	• *HL1 – Preparation/Revision for Progress test.* • *HL2– Preparation/Revision for Progress test.* • HL3 Reading and Low Stakes Test	• *HL1 – Computer Science (OCR) Computer Systems, Seneca 1.1, 1.2, 1.3, 1.4* • *HL2– CGP OCR Exam Practice Workbook (The CPU pg. 5-6) to be completed within one week)*	• *HL1 Logic, Translation & Representation: 5.3 Data representation 5.3.1 – 5.3.9 – 2 weeks.* • *HL2* - Data Representation OCR Exam style questions • HL3 Reading and Low Stakes Test	• HL1 - *Preparation/Revision for Progress test.* • HL2 – ELCE OCR Extended 8 Mark question. • HL3 *Preparation/Revision for Progress test.*	• *HL1 – Introduction to Python V3 Seneca 1.1, 1.2, 1.3* • *HL2 – Introduction to Python V3 Seneca 1.4, 1.5, 1.6* • HL3 Reading and Low Stakes Test

			• HL3 Reading and Low Stakes Test			
READING, WRITING, TALK	• Reading Strategies of 'predicting', 'ask questions' and 'form opinions' used regularly • Opportunities for talk and debate in lessons. *Students will have first-hand experience of how modern technologies have impacted them. Legal and Ethical impacts of these technologies offer a good opportunity for students to debate these topics.* • SEEC used for all Tier 3 Vocab	• Reading Strategies of 'predicting', 'ask questions' and 'form opinions' used regularly • Students will have the opportunity to "trace" code. • Students will predict what certain pieces of code will do. • • SEEC used for all Tier 3 Vocab	• SEEC used for all Tier 3 Vocab • Opportunities to use the talk protocol for peer critique • Students will read around John Von Neumann • Reading Strategies of 'predicting', 'ask questions' and 'form opinions' used regularly • Opportunities for talk and debate in every lesson using 'Talk Protocols'.	• Reading Strategies of 'predicting', 'ask questions' and 'form opinions' used regularly • Opportunities for talk and debate in every lesson using 'Talk Protocols'. • Debates surrounding ethical, Legal, Cultural and environmental issues. • SEEC used for all Tier 3 Vocab	• Reading Strategies of 'predicting', 'ask questions' and 'form opinions' used regularly • Opportunities for talk and debate in every lesson using 'Talk Protocols'. • Tracing code • Predicting code and asking questions as to what it does. • SEEC used for all Tier 3 Vocab	• Reading Strategies of 'predicting', 'ask questions' and 'form opinions' used regularly • Opportunities for talk and debate in every lesson using 'Talk Protocols'. • Tracing code • Predicting code and asking questions as to what it does. • SEEC used for all Tier 3 Vocab
TIER 3 VOCAB	Tier 3 – Subject-specific academic vocabulary: • Legislation • Graphical user interface • Command line interface • Malware • Hacking • Computer misuse	Tier 3 – Subject-specific academic vocabulary: • Cloud computing • Collaboration • Stakeholder	Tier 3 – Subject-specific academic vocabulary: • FDE • ALU • CU • Cache • Registers • MAR • MDR • Program Counter • Accumulator • Clock Speed • Cache Size • Cores • Embedded System • Optical • Magnetic	Tier 3 – Subject-specific academic vocabulary: • Units (Bit, Nibble…) • Denary • Binary • Hexadecimal • ASCII • Unicode • Pixels • Metadata • Colour Depth • Resolution • Sample Rate • Frequency • Analogue • Digital • Lossy	Tier 3 – Subject-specific academic vocabulary: • OS • UI • Encryption • Defragmentation • Data Compression	Tier 3 – Subject-specific academic vocabulary: • Abstraction • Decomposition • Algorithmic Thinking • Input • Process • Output • Pseudocode • Flowcharts • Sequence • Selection • Iteration • Variable • Integer • Real • Boolean

			• Solid State • Units (Bit, Nibble…) • Denary • Binary	• Lossless • LAN • WAN • DNS • STAR • MESH		• Character • String • Casting •
PSPSMC, BRITISH VALUES	**Personal:** Developing the valuable transferable skill of logical thinking. **Social:** Paired programming opportunities. **British value:** Legislation and law surrounding data protection and how this affects organization and individuals **Moral:** Giving peer feedback in a respectful manner. **Cultural:** Modern technologies and its effect/influence		**Personal:** Developing the valuable transferable skill of logical thinking. **Social:** Social impacts of digital technology. **British value:** Legislation and law surrounding data protection and how this affects organization and individuals **Moral:** Giving peer feedback in a respectful manner. **Cultural:** Cultural impacts of digital technology and computer science.		**Personal:** Developing the valuable transferable skill of critical thinking. **Social:** Presentations to the group **British value:** Consideration of the involvement of governments and companies in internet surveillance **Moral:** Giving peer feedback in a respectful manner. **Physical:** Environmental issues with computing, effect of computing on physical wellbeing **Cultural:** Understanding the cultural norms associated with the digital issues (smartphone use, automation)	

CHS Curriculum Area Framework for Learning – Year 9

SUBJECT	**Year 9 Design Technology**
INTENT	Design and Technology exposes students to a wide range of areas relating to not only how products are designed and made, but also gives an insight into the justification for using and avoiding materials, considerations for sustainability and explore how historical developments have led to more advanced manufacturing processes, as a result, Year 9 Design and Technology will prepare students to participate confidently and successfully in an increasingly technological world. Students will gain awareness and learn from wider influences on Design and Technology including historical, social, cultural, environmental, and economic factors, as well as be able to practise and develop some practical skills not only in designing but when working with a range of materials. It is our hope this develops student's creativity as well as problem solving skills when designing and making and apply technical and practical expertise.

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Department: Computing and Technology 2021-2022

Subject: Design Technology

Year Group	9					
Rationale/ Narrative	The work completed in Year 9 provides a foundation layer of basic design thinking skills and knowledge of the six main materials that the students can work with as well as allowing them to build up a bank of practical skills through the use of these materials as they complete a series of projects/focused practical tasks.					
	Autumn 1 Designing Principles	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
KNOWLEDGE	**Students will focus their learning on core designing principles:** • Using Designers, companies and products as a bases for all specialist drawing skills. • Design principles that will enable them to develop Isometric drawing, perspective, orthographic and other technical drawing skills in as well as those that will produce creative and innovative designs. • How to develop, communicate, record and justify design ideas, applying suitable techniques-ACCESS FM	**Students will focus their learning on paper and boards:** • Their sources, origins, physical and working properties. • The impact of forces and stresses on all material areas. • Material properties vocabulary • Their ecological and social footprint (Deforestation, 6 Rs ,Life cycle assessment). • The way in which the selection of paper or board for a product will be influenced by a range of factors.	**Students will focus their learning on natural, synthetic, blended and mixed fibres; woven, non-woven and knitted textiles:** • Their sources, origins, physical and working properties. (Weaving practical) • Their ecological and social footprint of Textiles. (Fairtrade/ Organic / Dyes/Fast Fashion) • The way in which the selection of fabric for a product will be influenced by a range of factors.	**Students will focus their learning on ferrous and non-ferrous metals:** • Their sources, origins, physical and working properties. • Their ecological and social footprint (Mining, product miles). • The way in which the selection of metal for a product will be influenced by a range of factors. • The stock forms, types and sizes that metals are available in. • The names of tools and equipment used	**Students will focus their learning on natural timbers and manufactured boards:** • Their sources, origins, physical and working properties. • Their ecological and social footprint. (Use of Bamboo, hardwood exploitation) • The way in which the selection of timber for a product will be influenced by a range of factors (Deforestation/ Farming). • The stock forms, types and sizes that timber is available, use	**Students will focus their learning on thermoforming and thermosetting polymers.** • Their sources, origins, physical and working properties. • Their ecological and social footprint. (Recycling abroad, drilling) • The way in which the selection of plastic for a product will be influenced by a range of factors. • The stock forms, types and sizes that plastic are available in.

	(All graphics-based work will be suitable for distance learning unless stated otherwise)	• The stock forms, types and sizes that paper and boards are available in use mathematical questioning as in GCSE papers. • The names of tools and equipment used particularly when working with paper and boards. • Quality control measures. • Design strategies that will assist them in generating initial ideas and avoid design fixation. • Students will design a product based on paper and boards	• The stock forms, types and sizes that textiles are available in. • The names of tools and equipment used particularly when working with textiles. • Hand stitching and decoration technique practical. • Changes in fashion and trends in relations to new and emergent technologies. • Textiles practical product	particularly when working with metal. • Quality control measure used in industry. • Case studies (e.g. on Apple and Alessi). • Metals practical product	mathematical questions. • The names of tools and equipment used particularly when working with woods and timbers. •Types of wood joints. • Flat pack Furniture • Quality control in commercial timber manufacturing. • Timbers practical product	• The names of tools and equipment used particularly when working with plastics. • The impact of resource consumption on the planet. Alternative plastics/Biodegradable Plastics • Injection Moulding (with Glue Guns) practical- demonstrate thermoplastics) • Plastics practical product
SKILLS	Students will be able to: • Identify, select and breakdown key information. • Develop specialist practical drawing skills	Students will be able to: • Identify, select and breakdown key information. • Undertake investigative tasks. • Develop practical construction skills using paper and board. (methods of: cutting and shaping, joining, finishing techniques and applied finishes). •Development of mathematical reasoning •Correct use of key terminology	Students will be able to: • Identify, select and breakdown key information. • Undertake investigative tasks. • Develop practical construction skills using textiles. (methods of: cutting and shaping, joining. •The traditional methods of applied finishing both for decorative purposes and enhancement of physical qualities).	Students will be able to: • Identify, select and breakdown key information. • Undertake investigative tasks. • Develop practical construction skills using metals. (methods of: cutting and shaping, joining, finishing techniques and applied finishes). •Development of mathematical reasoning •Correct use of key terminology	Students will be able to: • Identify, select and breakdown key information. • Undertake investigative tasks. • Develop practical construction skills using woods and timbers. (methods of: cutting and shaping, joining, finishing techniques and applied finishes). •Development of mathematical reasoning •Correct use of key terminology	Students will be able to: • Identify, select and breakdown key information. • Undertake investigative tasks. • Develop practical construction skills using plastics. (methods of: cutting and shaping, joining, finishing techniques and applied finishes). •Development of mathematical reasoning •Correct use of key terminology

			•Development of mathematical reasoning •Correct use of key terminology •Analysis of existing products	•Analysis of existing products	•Analysis of existing products	•Analysis of existing products
ASSESSMENTS	• **Classwork piece –** Students will be assessed on a piece of design work- COVID Product **Feedback Workshop**	• **Progress Test** **Feedback Workshop** • **Classwork piece** Unit 3 - Papers and boards question **Feedback Workshop**	•**Classwork piece –** Students will create an extended written piece on social and ecological effects of material area. **Feedback Workshop**	**Progress Test** **Feedback Workshop** •**Classwork piece** Unit 3 – Metals questions **Feedback Workshop**	• **Classwork piece –** Unit 3 – Timbers questions **Feedback Workshop**	• **Progress Test** **Feedback Workshop** • **Classwork piece** Unit 3 – Polymers questions **Feedback Workshop**
HOME LEARNING	**Task 1:** Graphics subject specific vocabulary worksheet **Task 2:** Graphics subject specific vocabulary/teams quiz	**Task 1:** Home-study for Progress Test **Task 2**: Teams Quiz- Paper and Boards **Task 3:** Sketchbook Task- Research into a well-known brand/designer who works with Paper and Boards- class	**Task 1:** Sketchbook Task- Research into a well-known brand/designer who works with Textiles **Task 2:** Sketchbook Design task – Students to complete a design task to help develop drawing and design skills **Task 3:** Teams Quiz- Textiles	**Task 1:** Home-study for Progress Test **Task 2:** Teams Quiz- Metals & Alloys **Task 3:** Sketchbook Task- Research into a well-known brand/designer who works with Metal & Alloys class	**Task 1:** Sketchbook Task- Research into a well-known brand/designer who works with Timbers **Task 2:** Sketchbook Design task – Students to complete a design task to help develop drawing and design skills **Task 3:** Teams Quiz- Timbers & Manufactured Boards	**Task 1:** Home-study for Progress Test **Task 2:** Teams Quiz- Polymers **Task 3**: Sketchbook Research into a well-known brand/designer who works with Polymers class presentation to celebrate

		presentation to celebrate		presentation to celebrate		
READING, WRITING, TALK	Students will develop skills relating to **reading** drawings and formal written text. Students will be encouraged to read work in depth and highlight/break down key pieces of information which is considered essential to their understanding. Students will be also required to use skills in inference, paraphrasing, and analysis. **Writing** skills will be developed both within lessons and in the completion of home learning tasks. Throughout their work there will be numerous opportunities for students to develop skills in **writing** in various styles ranging from annotation of drawings to extended writing tasks. There will be opportunities for discursive **talk** in every lesson using talk protocols. Students will be encouraged to freely discuss thoughts, ideas and opinions. In addition, students will be involved in peer guided talk sessions to aid development of extended writing tasks.		Students will develop skills relating to **reading** drawings and formal written text. Students will be encouraged to read work in depth and highlight/break down key pieces of information which is considered essential to their understanding. Students will be also required to use skills in inference, paraphrasing, and analysis. **Writing** skills will be developed both within lessons and in the completion of home learning tasks. Throughout their work there will be numerous opportunities for students to develop skills in **writing** in various styles ranging from annotation of drawings to extended writing tasks. There will be opportunities for discursive **talk** in every lesson using talk protocols. Students will be encouraged to freely discuss thoughts, ideas and opinions. In addition, students will be involved in peer guided talk sessions to aid development of extended writing tasks.		Students will develop skills relating to **reading** drawings and formal written text. Students will be encouraged to read work in depth and highlight/break down key pieces of information which is considered essential to their understanding. Students will be also required to use skills in inference, paraphrasing, and analysis. **Writing** skills will be developed both within lessons and in the completion of home learning tasks. Throughout their work there will be numerous opportunities for students to develop skills in **writing** in various styles ranging from annotation of drawings to extended writing tasks. There will be opportunities for discursive **talk** in every lesson using talk protocols. Students will be encouraged to freely discuss thoughts, ideas and opinions. In addition, students will be involved in peer guided talk sessions to aid development of extended writing tasks.	
TIER 3 VOCAB	Orthographic Isometric Perspective Render	Commercial Process Corrugated Stock Form Reinforce Material Properties Working Properties Sustainable (recap yr7/8) Ecological	Fibre Synthetic Natural Woven Warp Weft Knitted Seam Fastening Embellishment	Ferrous Functionality Alloy Ore Composite	Ecological Deciduous Coniferous Fabricate Social footprint Laminate	Thermosetting Thermoforming Injection molding Extrusion Fractional Distillation Cracking Polymerization
PSPSMC, BRITISH VALUES	**Personal:** During the first term of year 9 students will be establishing routines for work and expectations in the classrooms and workshops		**Personal:** During the first term of year 9 students will be establishing routines for work and expectations in the classrooms and workshops		**Personal:** During the first term of year 9 students will be establishing routines for work and expectations in the classrooms and workshops	

	environment. Technology subjects will make effective use of employability skills throughout the methods of learning and application of learning. Students will build their confidence and resiliency both within theory and practical lessons. **Social:** Links will be made through looking at the social impact of designs and working with materials and products. **Physical:** Student's physical wellbeing will be utilised by engagement with practical activities. They will explore the implications of working with specific materials. **Moral:** Students will be taught the moral implications of working with tools and equipment and materials, and the choices consumers and manufacturers make. **Cultural:** Students will have access to cultural awareness in relation to the design, promotion and manufacturing of product. **British Values:** Students will be able to explore the use of British standards and political correctness when designing and making products and the impact these designs and making controls have on society.	environment. Technology subjects will make effective use of employability skills throughout the methods of learning and application of learning. Students will build their confidence and resiliency both within theory and practical lessons. **Social:** Links will be made through looking at the social impact of designs and working with materials and products. **Physical:** Student's physical wellbeing will be utilised by engagement with practical activities. They will explore the implications of working with specific materials. **Moral:** Students will be taught the moral implications of working with tools and equipment and materials, and the choices consumers and manufacturers make. **Cultural:** Students will have access to cultural awareness in relation to the design, promotion and manufacturing of product. **British Values:** Students will be able to explore the use of British standards and political correctness when designing and making products and the impact these designs and making controls have on society.	environment. Technology subjects will make effective use of employability skills throughout the methods of learning and application of learning. Students will build their confidence and resiliency both within theory and practical lessons. **Social:** Links will be made through looking at the social impact of designs and working with materials and products. **Physical:** Student's physical wellbeing will be utilised by engagement with practical activities. They will explore the implications of working with specific materials. **Moral:** Students will be taught the moral implications of working with tools and equipment and materials, and the choices consumers and manufacturers make. **Cultural:** Students will have access to cultural awareness in relation to the design, promotion and manufacturing of product. **British Values:** Students will be able to explore the use of British standards and political correctness when designing and making products and the impact these designs and making controls have on society.

Subject: Food Preparation and Nutrition

Year Group	Year 9
Rationale/ Narrative	Year 9 Food Preparation and Nutrition is used as a knowledge building and skills-based year. During the first half term students will gain an insight into the Food Preparation and Nutrition course through a foundations scheme of work aimed at developing students key understanding of the broader topic in the subject. Beyond Autumn 1 and throughout the course of the year students will have the opportunity to develop skills and knowledge gained during Key Stage 3 as well as having the opportunity to practice and enhance various practical skills required as part of KS4 courses. Furthermore, students will have the opportunity to develop their knowledge in the key areas of Food Preparation and Nutrition such as Food, Nutrition and Health, Food Safety, Food Science, Food Choice and Food Provenance. Expanding their knowledge and understanding in these areas to give will give students an insight into the fundamentals of the KS4 course preparing them for Year 10 which aims to develop this knowledge, recall key information from Year 9 and aim to build students confidence prior to NEA tasks being started in Year 11.

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	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
KNOWLEDGE	**Food Foundations- Introduction to Food Preparation and Nutrition** During this half term students will be introduced to the 5 topic areas covered in KS4 Food Preparation and Nutrition. They will have the opportunity to explore different elements of the course building on the knowledge gained at KS3 using the following key areas: • Food Nutrition and Health-Macro and Micronutrients • Food Science- Gluten formation- *Practical link-bread/pastry* • Food Choice- Sensory evaluation • Food Safety- Microorganisms and enzymes-*Practical Link-high risk foods/blanching* • Food Provenance- Food security	**Food Safety** During this half term students will be introduced to Food Safety in more detail. This will better prepare them to work safely and hygienically in the kitchen looking at the following areas: • Signs of food spoilage. • Microorganisms used in food production- *practical link- cheese dish* • Bacterial contamination and food poisoning • Principles of food safety- preparing and cooking food- personal hygiene, cross-contamination- *practical link- chicken dish* • Principles of food safety- food temperature, storing food (perishable/ambient)	**Food Nutrition and health** During this half term students will have the opportunity to study Food Nutrition and health in more detail building on the foundations from Year 8 and earlier in the year, looking at the following areas: • Macronutrients Recap including sources and function • Complex/simple carbohydrates • Biological value of proteins- *practical link (vegetarian protein)* • Visible/invisible fats/ saturated/unsaturated • DRV of each. • Deficiency and excess of each. • Nutritional analysis • Micronutrients (vitamins) Recap fat and water-soluble vitamins including function and sources- *practical link (retaining water soluble vitamin investigation)* • Antioxidants- *practical link (berry dessert-Eton mess)* • Deficiency and excess of different vitamins	**Food Science** During this half term students will have the opportunity to study aspects of Food Science in more detail building on the foundations from Year 8 and earlier in the year. This will give further insight and preparation for NEA 1 - Food investigation task which will be covered in Year 11. Students will look at the following areas: • Protein denaturation • Protein coagulation • Recap of gluten formation • Foam formation- (recap Eton mess practical)	**Food Choice** During this half term students will have the opportunity to study aspects of Food Choice in more detail building on the foundations from Year 8 and the Autumn and Spring term. Students will investigate the following areas: • Factors affecting food choice • Food availability- links to food security and seasonality • Cultural and religious reasons for making food choice- *practical link- multicultural dish* • Costing recipes • Medical reasons for making food choice- *practical link- gluten free brownies/sensory analysis*	**Food provenance** During this half term students will have the opportunity to study aspects of Food Provenance in more detail building on the foundations from Year 8 and the Autumn term. During this topic students will look at the following areas: • Sustainable farming- RSPCA/Red tractor/organic/fair trade • Food waste- *practical link reduce waste practical* • Carbon footprint/seasonal- practical link-seasonal dish *(roasted summer vegetable cobbler/soup)* • Free- range production- egg analysis • GM crops
SKILLS	**Theoretical skills: Throughout the term students will have the opportunity to:**	**Theoretical skills: Throughout the term students will have the opportunity to:**	**Theoretical skills: Throughout the term students will have the opportunity to:**	**Theoretical skills: Throughout the term students will have the opportunity to:**	**Theoretical skills: Throughout the term students will have the opportunity to:**	**Theoretical skills: Throughout the term students will have the opportunity to:**

	• Identify, select, break down and summarise key information. • Recognise key terminology, define, utilize and embed in written work. • Reflect, analyse (sensory), plan and improve through practical evaluation. • Analyse and practice exam technique including how to produce extended responses. **Practical Skills:** **Throughout the term students will have the opportunity to practice and hone various practical skills including:** • General practical skills (weighing, measuring, testing, cooking times) • Knife skills- basic knife cuts • Preparing fruit and vegetables- blanching. • Use of the cooker- hob and oven • Cooking methods- water and fat based cooking methods • Use of equipment- use of specialist equipment • Dough- bread and pastry. **Other skills students will develop are:** • Quality Control	• Identify, select, break down and summarise key information. • Recognise key terminology, define, utilize and embed in written work. • Reflect, analyze (sensory), plan and improve through practical evaluation. • Analyse and practice exam technique including how to produce extended responses. **Practical Skills:** **Throughout the term students will have the opportunity to practice and hone various practical skills including:** • General practical skills (weighing, measuring, testing, cooking times) • Knife skills- chopping boards/portioning a chicken (high risk food) • Use of the cooker- hob and oven • Cooking methods- water fat-based cooking methods, dry methods • Dough- bread • Sauce making- reduction **Other skills students will develop are:** • Quality Control • Time Management • Teamwork	• Identify, select, break down and summarise key information. • Recognise key terminology, define, utilize and embed in written work. • Reflect, analyze (sensory), plan and improve through practical evaluation. • Analyse and practice exam technique including how to produce extended responses. **Practical Skills:** **Throughout the term students will have the opportunity to practice and hone various practical skills including:** • General practical skills (weighing, measuring, testing, cooking times) • Knife skills- knife cuts vegetables and fruit • Preparing fruit and vegetables • Use of the cooker- hob and oven • Marinating- tofu • Cooking methods- water fat-based cooking methods, dry methods • Raising agents- aeration **Other skills students will develop are:** • Quality Control • Time Management	• Identify, select, break down and summarise key information. • Recognise key terminology, define, utilize and embed in written work. • Reflect, analyze (sensory), plan and improve through practical evaluation. • Analyse and practice exam technique including how to produce extended responses. **Practical Skills:** • General Practical skills. • Use of equipment- electric whisks • Use of cooker-oven and grill. **Other skills students will develop are:** • Quality control • Team work • Initiative and independence.	• Identify, select, break down and summarise key information. • Recognise key terminology, define, utilize and embed in written work. • Reflect, analyze (sensory), plan and improve through practical evaluation. • Analyse and practice exam technique including how to produce extended responses. **Practical Skills:** **Throughout the term students will have the opportunity to practice and hone various practical skills including:** • General practical skills (weighing, measuring, testing, cooking times) • Knife skills- knife cuts vegetables and fruit • Use of the cooker- hob and oven • Cooking methods- water fat-based cooking methods, dry methods. • Dough. **Other skills students will develop are:** • Quality Control • Time Management • Teamwork • Organization • Initiative and independence.	• Identify, select, break down and summarise key information. • Recognise key terminology, define, utilize and embed in written work. • Reflect, analyze (sensory), plan and improve through practical evaluation. • Analyse and practice exam technique including how to produce extended responses. **Practical Skills:** **Throughout the term students will have the opportunity to practice and hone various practical skills including:** • General practical skills (weighing, measuring, testing, cooking times) • Knife skills- knife cuts vegetables and fruit • Preparing fruit and vegetables • Use of the cooker- hob and oven • Cooking methods- water fat-based cooking methods, dry methods. • Equipment- hand blender/food processor. **Other skills students will develop are:** • Quality Control • Time Management • Teamwork

	• Time Management • Teamwork • Organization • Initiative and independence.	• Organization • Initiative and independence.	• Teamwork • Organization • Initiative and independence.			• Organization • Initiative and independence.
ASSESSMENTS	**Key Assessment Task:** **Assessed class piece-** Condensed Food Science report on Gluten formation and development. **Baseline assessment** - end of topic assessment on the 5 key topic areas learnt throughout the half term. This will 'test' student's knowledge and understanding gained from this half term.	**Key Assessment Task:** **Assessed class piece -** Exam style question on bacterial contamination and prevention. **Food Progress checkpoint:** students will complete a checkpoint to assess their knowledge and understanding of the topics covered thus far in the year.	**Key Assessment Task:** **Assessed class piece -** Practical evaluation and reflection piece **End of topic assessment-** end of topic assessment on the aspects of Food, nutrition and health taught in this half term. This will 'test' student's knowledge and understanding of this topic area.	**Key Assessment Task:** **Assessed class piece-**food science report (investigation findings and evaluation) **Food Progress Checkpoint:** students will complete a checkpoint to assess their knowledge and understanding of the topics covered thus far in the year.	**Key Assessment Task:** **Assessed class piece -** Costing recipes piece of work - calculations and explanation **End of topic assessment** end of topic assessment on the aspects of Food Choice taught in this half term. This will 'test' student's knowledge and understanding of this topic area.	**Key Assessment Task:** **Assessed class piece -** Discussion piece on sustainable farming methods of choice **Food Progress checkpoint:** students will complete a checkpoint to assess their knowledge and understanding of the topics covered thus far in the year.
HOME LEARNING	**1 piece every two weeks:** **Home Learning Task 1 -** SENECA quiz on Macro and Micro nutrients **Home Learning Task 2** - Research into gluten. **Home Study - Ongoing:** Students will be encouraged to use independent study techniques to support learning in preparation for End Point Assessments in Food Preparation and Nutrition.	**1 piece every two weeks:** **Home Learning Task 1** Research and fact file into the role of a Food safety inspector/ environmental health officer (career links) **Home Study - Ongoing:** Students will be encouraged to use independent study techniques to support learning in preparation for their Progress Checkpoint Assessments in Food Preparation and Nutrition.	**1 piece every two weeks:** **Home Learning Task 1** Explore the truths and myths about antioxidants. Produce a set of truth or myth cards to test peer's knowledge. **Home Learning Task 2** SENECA quiz on macro/micronutrients aid revision and consolidate topic.	**1 piece every two weeks:** **Home Learning Task 1** Food science research NEA link. **Home Study - Ongoing:** Students will be encouraged to use independent study techniques to support learning in preparation for their Progress Checkpoint Assessments in Food Preparation and Nutrition.	**1 piece every two weeks:** **Home Learning Task 1** further research into a different religion or culture of choice and their food choices and practices. **Home Learning Task 2** costing of recipe practice	**1 piece every two weeks:** **Home Learning Task 1** visit love food hate waste select a article that interests you. Read the article and produce a summary to share with class. **Home Study - Ongoing:** Students will be encouraged to use independent study techniques to support learning in preparation for their Progress Checkpoint Assessments in Food Preparation and Nutrition.
READING, WRITING, TALK	**Reading:** Strategies that students will use during the course of the term will be:		**Reading:** Strategies that students will use during the course: • Break down information • Learn new vocabulary		**Reading:** Strategies that students will use during the course: • Break down information • Learn new vocabulary	

	• Break down information- students will be required to read text related to a topic and summarise this to aid their understanding • Learn new vocabulary- SEEC will encouraged for some tier 3 words as well as embedding them in an exam response. • Form opinions- topics such as food provenance will allow for students to form opinions and share their ideas. • Infer- inference will be required when attempting exam style questions in order to formulate a response • Ask questions- students will be encouraged to ask questions on specific topics during discussions and throughout. **Writing** skills will be developed in lesson and through home learning. There will be focused opportunity for extended writing tasks through exam style questions and practical reflections. **Talking protocols** will be encouraged in each lesson with ample opportunity for students to discuss and formulate opinions on topics. Time will be embedded in lessons for students to share their ideas and thoughts verbally in both theory and practical lessons, with the opportunity to peer critique.		• Form opinions • Infer • Ask questions • Predict- students will be required to formulate a hypothesis in spring 2 based on research and prior knowledge. **Writing** skills will be developed in lesson and through home learning. There will be focused opportunity for extended writing tasks through exam style questions, practical reflections and Food science investigation report writing in spring 2. **Talking protocols** will be encouraged in each lesson with ample opportunity for students to discuss and formulate opinions on topics. Time will be embedded in lessons for students to share their ideas and thoughts verbally in both theory and practical lessons, with the opportunity to peer critique.		• Form opinions • Infer • Ask questions • Visualisation **Writing** skills will be developed in lesson and through home learning. There will be focused opportunity for extended writing tasks through exam style questions as well as in depth practical reflections. **Talking protocols** will be encouraged in each lesson with ample opportunity for students to discuss and formulate opinions on topics. Time will be embedded in lessons for students to share their ideas and thoughts verbally in both theory and practical lessons, with the opportunity to peer critique.	
TIER 3 VOCAB	Tier 3 – Subject-specific academic vocabulary: • Micronutrient • Macronutrient • Gluten • Enzyme • Blanching • Microorganism • Olfactory Receptors • Food Security	Tier 3 – Subject-specific academic vocabulary: • Pathogenic • Ambient • Bacterial • Cross-contamination • Salmonella • Campylobacter • Listeria • Hygiene	Tier 3 – Subject-specific academic vocabulary: • Complex carbohydrate • biological value • saturated/unsaturated fats • antioxidant • vitamin • Protein • Deficiency	Tier 3 – Subject-specific academic vocabulary: • Denaturation • Coagulation • Aeration • Syneresis • Marinate • tenderise	Tier 3 – Subject-specific academic vocabulary: • Seasonality • Multi-cultural • cuisine • Lactose intolerance • Coeliac • Diabetic • Allergy	Tier 3 – Subject-specific academic vocabulary: • Sustainable • Carbon footprint • Genetically modified • Organic • Free range • Food waste

CHS SOUTH: CURRICULUM

PSPSMC, BRITISH VALUES	**Personal –**Establishing routines in the Food Preparation classroom for both theory and practical, understanding how to work safely in a new environment. How to eating well, the role of different food in a healthy body. **Physical –** Students physical well-being will be encouraged through the application of cooking skills – specific skills - fine motor – using equipment safely **Spiritual** – students will develop an understanding of global citizenship, poverty and privilege through the teaching of various topics. **Cultural –** Throughout the year students will cook dishes that originate from different countries and cultures, learning the process of making as well as discovering different ingredients and seasonings. **British values**- Students will explore the law regarding food safety as well as the use of British ingredients and equipment		How to eating well, the role of different food in a healthy body. **Social-** working harmoniously to formulate opinions and arguments on various topics **Physical –** Students physical well-being will be encouraged through the application of cooking skills – specific skills - fine motor – using equipment safely Students will build up their resiliency when practising new skills as well as curiosity of exploring new equipment. **Spiritual** – students will develop an understanding of global citizenship, poverty and privilege through the teaching of various topics. **Moral-** Students will have the opportunity of the moral implications of the food choices consumers and manufacturers make. **Cultural –** Throughout the year students will cook dishes that originate from different countries and cultures, learning the process of making as well as discovering different ingredients and seasonings encouraging student's curiosity. **British values** – the law and labelling, foods that are fortified.		**Personal –**Embedding routines in the Food Preparation classroom for both theory and practical, continuing to work safely throughout. Physical – Cooking skills – fine motor – using equipment safely **Social** – producing food for people with different dietary or religious needs **Cultural** – cooking dishes from other countries and cultures. Gaining an understanding of ingredients form other cultures and how they are used. Foods to avoid or include for others **Moral-** exploring religious reasons for food choice. British values - the role of foods from other cultures in UK – BREXIT/covid as well as the import and export of foods in the in UK – BREXIT/covid	
Conscious Curriculum	Food Security- When studying food security students will gain an awareness of the impact of food availability and production on different socioeconomic groups and ethnic minority groups around the world. Through cooking students will experience and consider a variety of seasonings related to other cultures.	Students will have the opportunity to share their culinary experiences and select a recipe of their choice that will reflect a variety of different cultures and backgrounds. Through the study of preparing meat students will be introduced to the methods of how different religions and cultures prepare meat. Links to influential chefs from around the world.	Students will have the opportunity to explore diets of different ethnic communities from around the world discussing the health benefits and implications of these diets as well as gaining awareness of the different eating practices from around the world. Links to Marie Maynard Daly (work on the effects of nutrients on health and CHD)	Students will explore different protein foods in this unit. Links can be made to different meats/fish/eggs how they are prepared in different communities as well as the different types consumed in different countries and communities. Students will gain insight into influential BAME food scientists.	Through the study of religious and cultural reasons of food choice as well as medical reasons students will be exposed to various different religious backgrounds and their eating and food preparation practices. Studying medical implications will give students insight into the potential requirements of their peers.	Exploring sustainable farming and manufacturing will provide students with insights into food practices in different countries and cultures including fair trade and palm farming. The differences between farming practices across the world and their implications.
CEIAG (Links to Post 16) KS4 Subjects only)	The introduction of this course will also reflect on the post 16 opportunities as well as potential careers in the food and hospitality industry.	Students will explore potential careers and professions in the hospital and catering industry with a particular focus on hygiene expectations and roles within this industry.	Students will explore potential careers and professions in the food industry with a particular focus on jobs within the nutrition sector as well as	Students will explore potential careers and professions in the food industry with a particular focus on jobs within the food science and food	Students will explore potential careers and professions in the food industry with links made to the nutrition sector and the hospitality and catering sector	Students will explore potential careers and professions in the food industry with particular focus on agriculture and food manufacturing.

			STEM links. (science and maths)	development industry as well as STEM links (science)		

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