Copley Academy

Computing Curriculum Year 9

Year 9		HT1	HT2	HT3	HT4	HT5	HT6
Computing	**Topic** Big Idea/Question	**Topic 1** Cyber security	**Topic 2** Enterprise	**Topic 3** Data Science	**Topic 4** Python 2 – Sequence of data	**Topic 5** Physical Computer programming	**Topic 6** Representation – going audio visual
	Why this and why now? What is the content doing here? How does it integrate to prior learning or prepare students for future learning? Is it an opportunity for cumulative learning or to achieve proficiencies? Does it provide a step to collective sufficiency?	This unit takes the learners on an eye-opening journey of discovery about techniques used by cybercriminals to steal data, disrupt systems, and infiltrate networks. The learners will start by considering the value of their data to organisations and what they might use it for. They will then look at social engineering techniques used by cybercriminals to try to trick users into giving away their personal data. The unit will look at the more common cybercrimes such as hacking, DDoS attacks, and malware, as well as looking at methods to protect ourselves and our networks against these attacks.	This is a separate unit of work to give students a brief understanding of the BTEC enterprise course which students can opt for at GCSE level. This has been placed in the Y9 curriculum at this point as students have not yet taken their options. The aspect taught will be the background information regarding how SME's begin life, the types of SME's that start up. The learners will also look at The skills and characteristics of the entrepreneurs who start up these SME's.	In this unit, learners will be introduced to data science, and by the end of the unit they will be empowered by knowing how to use data to investigate problems and make changes to the world around them. Learners will be exposed to both global and local data sets and gain an understanding of how visualising data can help with the process of identifying patterns and trends. Towards the end of the unit, the learners will go through the steps of the investigative cycle to try to solve a problem in the school using data.	This unit introduces learners to how data can be represented and processed in sequences, such as lists and strings. The lessons cover a spectrum of operations on sequences of data, that range from accessing an individual element to manipulating the entire sequence. Great care has been taken so that the selection of problems used in the programming tasks are realistic and engaging: learners will process solar system planets, book texts, capital cities, leaked passwords, word dictionaries, ECG data, and more. A range of pedagogical tools are employed throughout the unit, with the most prominent	This unit applies and enhances the learners' programming skills in a new engaging context: physical computing, using the BBC micro:bit. In the first half of the unit, learners will get acquainted with the host of components built into the micro:bit, and write simple programs that use these components to interact with the physical world. In the process, they will refresh their Python programming skills and encounter a range of programming patterns that arise frequently in physical computing applications. In the second half, learners will work in pairs to build a physical computing project. They will be required to select and design their project	In this unit, learners will focus on digital media such as images and sounds, and discover the binary digits that lie beneath these types of media. Just like in the previous unit, where learners examined characters and numbers, the ideas that learners need to understand are not really new to them. You will draw on familiar examples of composing images out of individual elements, mixing elementary colours to produce new ones, and taking samples of analogue signals, to illustrate these ideas and bring them together in a coherent narrative. This unit also has a significant practical aspect. Learners will use

					being pair programming, live coding, and worked examples. The Year 7 and 8 Programming units are prerequisites for this unit. It is assumed that learners are already able to write Python programs that display messages, receive keyboard input, use simple arithmetic expressions, and control the flow of program execution through selection and iteration structures.	purposefully, apply what they have learnt by building a prototype, and keep a structured diary throughout the process. The Year 8 and 9 programming units are prerequisites for this unit. It is assumed that learners are already able to write Python programs that use variables and data structures to keep track of information. They are also expected to be able to combine sequence, selection, iteration, and function/method calls to control the flow of program execution.	relevant software (GIMP and Audacity, in this case) to manipulate images and sounds and get an idea of how the underlying principles of digital representations are applied in real settings. This unit builds on the material from the Year 8 unit, 'Representations: from clay to silicon'.
	What is the essential knowledge that needs to be remembered? What are the key facts, skills, and experiences that you want students to remember? What are the substantive and disciplinary concepts? Does the knowledge selected mean	The aim of this lesson is to introduce the learners to the unit and to help them understand the value of data to companies. The focus will be on what data companies collect from their users and how they use it. Learners will explore this topic through scenarios as well as by looking at the privacy policies of some tech companies that they may already be giving data to. They will be introduced briefly to the law	Learners will show that they understand how far the characteristics of a selected local SME and its owners contribute to its levels of success. They will carefully consider the purpose of the SME and each of its characteristics, including the number of people who run the enterprise, the number of people it employs, the type of ownership and whether the enterprise operates physically, online, or both.	The aim of this lesson is to introduce the learners to data science, and in particular, how visualising data can help us to provide insights that may not be as obvious when looking at raw data. The learners will investigate a couple of historical examples that highlight the value in visualising data, before using an online tool to help them visualise a small data set of TV viewing figures in order to gain an insight. The	This introductory lesson serves a double purpose: it reconnects learners with Python, making sure they can read and create simple programs that use selection, and it also takes a step forward, providing a very gentle introduction to lists. This lesson provides learners with an overview of the operations that are commonly performed on lists: adding, removing, or modifying items; locating or counting occurrences of particular items, etc.	This introductory lesson is meant to get learners acquainted with the micro:bit. They will explore its hardware components, so that they develop an awareness of its capabilities. They will also write and execute their first Python programs on the micro:bit, so that they familiarise themselves with the development environment, the practicalities of flashing their programs, and some simple coding patterns.	Digital pictures are formed out of individual pixels (picture elements), just like the Greek and Roman mosaics are formed out of individual pieces of glass or stone. However, unlike their ancient counterparts, the elements in digital mosaics are aligned in rows and columns, with the colour of each element represented as a sequence of binary digits. In this lesson, learners will create digital mosaics pixel by pixel, and

	students leave with a good understanding? Substantive – key facts Disciplinary- Methods of subjects Procedural- Skills	regarding data protection and will reflect on why cybercriminals might want to gain access to data. The aim of this lesson is for learners to become aware of how humans can be a weak point in the system, as well as looking at the social engineering tactics deployed by cybercriminals to dupe users into giving away data that could lead to further crime. The lesson starts with the learners using a Scratch program aimed at tricking them into giving away personal information. Learners will then be taken through the common social engineering techniques, completing exercises through the lesson to encourage them to think more deeply about the consequences of the scams and how to avoid becoming a victim. This lesson allows the learners to explore the concept of hacking and the techniques used by hackers to exploit computer systems. The lesson starts with the	They will also consider how the characteristics of the entrepreneur running the SME have contributed to its success, such as how innovation and adaptability have helped fill gaps in the market. They will clearly show the importance of each characteristic in contributing to the success of the enterprise, showing clear links and interrelationships between the two, and they will be able to select which characteristics are most important, supporting this with relevant reasons and examples.	lesson will conclude with learners looking at a data set and deciding what it would be useful to visualise. The homework is then to visualise that data. The previous lesson gave learners an introductory level of understanding of the purpose of data science. In this lesson, they will gain a better understanding of how ever-improving advances in technology have made it more feasible to collect, store, and analyse much larger data sets than previously. The learners will look at global data sets, make predictions, and use visualisations of the global data to prove or disprove their predictions, as well as to investigate anomalies and outliers in the data. The focus of this lesson is to introduce the learners to the investigative cycle PPDAC (problem, plan, data, analyse, conclusion) and apply part of this cycle to a data set about roller coasters. The learners	Learners are presented with a set of short challenges. They are asked to identify the list operations that would be relevant and apply them to perform the required tasks. Through these challenges, learners will indirectly gain a better understanding of the sort of problems where lists might be useful. They also get accustomed to using dot notation for list methods, although this is not the focus of the lesson. This lesson revolves around iteration using while loops, offering learners a chance to retrieve and apply relevant knowledge. In the first activities, learners will practise using list operations in iterative contexts. Learners will be introduced to the similarities between lists and strings, which will be based on what they already know about operations relating to length, membership, and access to individual characters. The final	At the end of the lesson, the learners will discuss what makes physical computing different from what they have been doing so far. Through the course of this lesson, learners will write programs that use the micro:bit's 5✕5 LED display for output and some of the built-in sensors for obtaining input. This simple 'bare bones' setup will allow them to focus on the code and the patterns that often arise in physical computing applications. At the same time, they will get the chance to revisit some elementary programming constructs they learnt in previous units. At the end of the lesson, learners will be asked if they have had any project ideas while exploring the micro:bit. Designing and building their own project is the ultimate goal of the unit. This lesson provides learners with examples of using the micro:bit's General-Purpose Input Output (GPIO) pins to connect it to external	experience how an image composed of individual coloured elements can correspond to a sequence of binary digits. This will help them form an initial understanding of how the images that they encounter daily in their digital devices translate to nothing more than long strings of bits. In the early days of personal computers, graphics were displayed in a range of different resolutions and colour depths, depending on the hardware available. Nowadays, while resolution is still being increased, there is no mention of colour depth or the number of possible colours available. We have used 24 or 32 bits for years, as this has been sufficient. In the previous lesson, learners were introduced to the idea that the colour of each pixel can be represented as a sequence of binary digits. In this lesson, they will explore the most common representation of colour as a mixture of red, green, and blue: the

		learners looking for clues to hack into a friend’s account to help his parents find out where he is. They will then be forced to think about the ethics behind their actions. The rest of the lesson looks at terms such as brute force attacks, hacktivists, script kiddies, and DDoS attacks. Some of the key terminology is introduced around the real-life example of the Dyn attack that disabled DNS servers (mostly in the USA) for a time. The lesson will conclude with the learners exploring the Computer Misuse Act and the consequences of hacking. The purpose of this lesson is to make learners aware of malware and the different categories of malware, as well as understanding how they work and the potential damage they can do. This lesson focuses more on the technical side than on prevention methods, which will be covered in Lesson 5 of this unit. This lesson will start with a		start this lesson where they left off, by analysing a graph from a world data set. The graph will be used to highlight the correlations in the data and to investigate outlying data. After being introduced to PPDAC, the learners will be given a scenario to investigate what would make a cool roller coaster. They will refine the problem into questions they can investigate, visualise the data, analyse, and report on their findings. In this lesson, the learners will develop their understanding of the investigative cycle by investigating a problem themselves. They will do this by investigating the problem of litter in their school. They will work through the first two steps of the cycle (problem and plan). To do this, they will pose questions and think about what data they will need to answer those questions. Learners will then make an electronic data capture form, on which they will go on to enter the data that they	activity requires them to apply these string operations in an iterative context. In this lesson, learners will use a for-loop to iterate over list items. They will initially study a range of examples — to familiarise themselves with its syntax, use, and mechanics — before moving on to apply what they’ve learnt to similar tasks. The activities involve iterating over lists of real-world textual and numerical data, requiring learners to recall and apply knowledge from the previous lessons. The lesson ends with a nod towards using for to iterate over the characters of a string, which may come in handy when learners attempt to solve problems independently. IIn this lesson, learners will be provided with a selection of meaningful mini-projects that will allow them to apply the knowledge and skills they have acquired so far. Each project contains a short introduction that	hardware components, such as switches, speakers, and LEDs. The ability to connect the micro:bit to additional components enhances the built-in capabilities for input and output, which extends the range of projects the learners will be able to build. The lesson also demonstrates the use of the micro:bit’s radio antenna in order to transmit and receive messages wirelessly. This is one of its most versatile capabilities and opens the way for projects that involve multiple micro:bits working together. At the end of the lesson, learners will again be asked about their project ideas. This time, they will also be asked to put their ideas on paper as homework, as they will find themselves taking their first creative design steps in the next lesson. The first three lessons allowed learners to explore the individual physical computing components at their disposal. Starting with	level of each of these colours in the mixture is represented using an 8-bit sequence, producing a total of 24 bits to represent the colour of any single pixel. Learners will also build on their existing knowledge to calculate the representation size of digital images. After introducing learners to the ideas behind digital image representation, it’s now time for a hands-on approach. In this lesson, learners will use appropriate software to perform a range of image manipulation functions and complete specific tasks and challenges. Learners will already have varying levels of experience and proficiency in using image editing software, so this is a flexible lesson, with a range of activities provided to suit different needs and tastes. Please note that this lesson is not intended to be a comprehensive introduction to image editing.

		pretend scenario of the network having been infected by ransomware; the learners have to decide what action to take. They will then be introduced to the key terms before being instructed to do a research task to create a fact-based quick read on one type of malware they have learnt about. Towards the end of the lesson, the learners will be introduced to web bots and what task they perform on the internet. They will then be shown how bots are used in conjunction with malware and will be given a scenario that allows them to understand the hidden role of bots and what potential influence they could have on societal issues. The aim of this lesson is for learners to develop their understanding of the risks that cyberthreats pose to a network, followed by an exploration of some of the more common methods of defending a network against attacks,		have collected. Following this lesson, the learners will work through the remaining steps of the cycle to complete the investigation of the problem. In this lesson, learners will continue to develop their understanding of the investigative cycle by working through the data and analysis steps of the PPDAC cycle, using their own problem and the data that they are investigating. The lesson starts with a practical exercise that gives the learners some experience of data cleansing, to help them understand the problems that inaccurate data can pose for data analysis. The learners will then download the data they have collected and clean it before uploading it to CODAP, where they will analyse it further by creating visualisations. In this lesson, the learners will start to find some answers to the questions that they posed previously. It will also act as a platform for them to start drawing the	provides context, a detailed description of what learners are expected to develop, and a set of clues that will support them in putting together a solution. Each learner is expected to select one of the mini-projects and complete it within this lesson, or in the first part of the next one. Before starting work on the projects, two short activities will provide learners with additional support around accumulating sums and using for to iterate over strings. This is generally important and will also prove useful in some of the projects. In this final lesson, learners will be given the opportunity to complete their mini-project or explore a second one. They will then take a quiz that will assess their grasp of the programming concepts they have encountered throughout the unit. An optional activity is also provided, for learners that finish early with their assessment quiz, or are	this lesson, they will build their own physical computing project, thus bringing together what they have learnt into a meaningful creation. The bulk of this lesson is dedicated to developing the learner projects. In pairs, they will work on their project prototype, following the proposal they drafted in the previous lesson. Halfway through the lesson, learners will pause to receive peer feedback, evaluate it, and fill in their project diary. By the end of the lesson, the project prototypes should largely be implemented. In this final lesson, learners will add the finishing touches to their projects; they will proceed to document what they have produced and reflect on the journey. Their projects will be evaluated using a rubric, and they will also take a quiz to assess the knowledge and skills they have individually acquired over the course of the unit. The lesson will conclude with a look	The instructions in the worksheets are tailored to GIMP (GNU Image Manipulation Program, available at gimp.org), which is open-source and cross-platform. However, the tasks can be performed with most image editing software. Tracing the steps of a hiker through the altitude data that she transmits, learners will familiarise themselves with the basic concepts necessary for understanding any analogue to digital conversion: samples, sampling rate, and sample size. The main goal is for learners to understand the 'big picture' of how sound is captured, digitised, manipulated, and reproduced in digital devices. First, learners will revisit the digitisation process, in order to understand how the sampling rate and the sample size affect the size and quality of the representation. Next, they will use a sound editing program that will allow them to

		such as firewalls and anti-malware. The learners will look at the more common threats that exist globally before thinking of the threats at the level of a school network. Learners will discuss methods used by network managers to reduce risk. The homework for this lesson is to write a short report to the head teacher on how to manage the most significant risk to the school network. This is the final lesson in the unit, and the learners are encouraged to reflect on the learning that has taken place throughout the unit before taking an end-of-unit assessment. The learners will be prompted to reflect through a game called Under Attack. Learners will work in groups to plan their defence strategy on a tight budget before cyberattacks start to happen. The use of their budget will be key in determining whether or not they were able to defend the organisation against the attack. Learners will then take		conclusions they need to draw in the next and final lesson of the unit. In this lesson, the learners will complete their school litter project by working through the final steps of the PPDAC cycle (analysis and conclusions). The lesson begins with the learners looking at an example visualisation. They will be encouraged to think about what they can learn from the data, as well as what additional information would be helpful for them to know. This will model the thought process they need to go through when analysing and concluding their projects. The learners will take an end-of-unit assessment before thinking about how they could apply what they have learnt in a context that is relevant to them and their lives.	simply keen on an additional challenge.	at other existing physical computing platforms.	experiment with sound to complete specific tasks and challenges. Learners will have varying levels of experience and proficiency in using sound editing software, so this is a flexible lesson, with a range of activities provided to suit different needs and tastes. The instructions in the worksheets are tailored to Audacity (audacityteam.org), which is open-source and cross-platform. However, the tasks can be performed with most sound editing software. To conclude the unit, learners will spend half the lesson completing a summative assessment. In the time remaining, learners will be introduced to alternative (symbolic) representations for images and sound, such as vector graphics and MIDI music. They will also be introduced to what compression is and why it is necessary.

		their end-of-unit assessment and if there is time they will be directed to research the available career choices in cyber-defence.					
	What is the assessment intent and how will you assess? What types of assessments and question stems are being used to demonstrate students are learning and progressing to produce ever higher standards of work? What formative assessment is there for component learning and summative for composite learning?	Assessment will be in a variety of forms. There will also be an ongoing formative assessment based on student work. This will be in the form of presentations and questioning. This will be both Peer and Teacher led Summative assessment will take place at the end of the unit of work based on topics learned. This will be a paper test. Each lesson will start with a mini quiz on forms. This will identify and test knowledge from the previous lesson and from previous topics covered. At the end of each lesson there will be a plenary on forms, and this will test knowledge and learning from the lesson.	Assessment will be in a variety of forms. There will also be an ongoing formative assessment based on student work. This will be in the form of presentations and questioning. This will be both Peer and Teacher led Summative assessment will take place at the end of the unit of work based on topics learned. This will be a paper test. Each lesson will start with a Do Now Activity. This will identify and test knowledge from the previous lesson and from previous topics covered. Each Lesson has an accompanying work sheet which is to be complete.	Assessment will be in a variety of forms. There will also be an ongoing formative assessment based on student work. This will be in the form of presentations and questioning. This will be both Peer and Teacher led Summative assessment will take place at the end of the unit of work based on topics learned. This will be a paper test. Each lesson will start with a mini quiz on forms. This will identify and test knowledge from the previous lesson and from previous topics covered. At the end of each lesson there will be a plenary on forms, and this will test knowledge and learning from the lesson.	Assessment will be in a variety of forms. There will also be an ongoing formative assessment based on student work. This will be in the form of presentations and questioning. This will be both Peer and Teacher led Summative assessment will take place at the end of the unit of work based on topics learned. This will be a paper test. Each lesson will start with a mini quiz on forms. This will identify and test knowledge from the previous lesson and from previous topics covered. At the end of each lesson there will be a plenary on forms, and this will test knowledge and learning from the lesson.	Assessment will be in a variety of forms. There will also be an ongoing formative assessment based on student work. This will be in the form of presentations and questioning. This will be both Peer and Teacher led Summative assessment will take place at the end of the unit of work based on topics learned. This will be a paper test. Each lesson will start with a mini quiz on forms. This will identify and test knowledge from the previous lesson and from previous topics covered. At the end of each lesson there will be a plenary on forms, and this will test knowledge and learning from the lesson.	Assessment will be in a variety of forms. There will also be an ongoing formative assessment based on student work. This will be in the form of presentations and questioning. This will be both Peer and Teacher led Summative assessment will take place at the end of the unit of work based on topics learned. This will be a paper test. Each lesson will start with a mini quiz on forms. This will identify and test knowledge from the previous lesson and from previous topics covered. At the end of each lesson there will be a plenary on forms, and this will test knowledge and learning from the lesson.

	What does the end point look like? What is the impact of this component on the student's learning? What should the learning now look like via the assessment? Is disciplinary language used?	● Explain the difference between data and information ● Critique online services in relation to data privacy ● Identify what happens to data entered online ● Explain the need for the Data Protection Act ● Recognise how human errors pose security risks to data ● Implement strategies to minimise the risk of data being compromised through human error ● Define hacking in the context of cyber security ● Explain how a DDoS attack can impact users of online services ● Identify strategies to reduce the chance of a brute force attack being successful ● Explain the need for the Computer Misuse Act ● List the common malware threats ● Examine how different types of malware causes	Learners will have a clear understanding of what an SME is. Learners will have an understanding and be able to identify aspects of SME's that make them successful. Learners will be able to identify entrepreneurial characteristics of the owners of the SME. Learners will Know: **Size and features of SMEs** • Sizes of SMEs • Types of profit-making enterprises • Features of SMEs **Sectors and business models in which enterprises operate** • Different sectors and business models • Different industries in which enterprises operate	● Define data science ● Explain how visualising data can help identify patterns and trends in order to help us gain insights ● Use an appropriate software tool to visualise data sets and look for patterns or trends ● Recognise examples of where large data sets are used in daily life ● Select criteria and use data set to investigate predictions ● Evaluate findings to support arguments for or against a prediction ● Define the terms 'correlation' and 'outliers' in relation to data trends ● Identify the steps of the investigative cycle ● Solve a problem by implementing steps of the investigative cycle on a data set ● Use findings to support a recommendation	● Write programs that display messages, receive keyboard input, and use simple arithmetic expressions in assignment statements ● Use selection (if-elif-else statements) to control the flow of program execution ● Locate and correct common syntax errors ● Create lists and access individual list items ● Perform common operations on lists or individual items ● Use iteration (while statements) to control the flow of program execution ● Perform common operations on lists or individual items ● Perform common operations on strings or individual characters ● Use iteration (for statements) to iterate over list items ● Perform common operations on lists or strings ● Use iteration (for loops) to iterate over lists and strings	● Describe what the micro:bit is ● List the micro:bit's input and output devices ● Use a development environment to write, execute, and debug a Python program for the micro:bit ● Write programs that use the micro:bit's built-in input and output devices ● Write programs that use GPIO pins to generate output and receive input ● Write programs that communicate with other devices by sending and receiving messages wirelessly ● Design a physical computing artifact purposefully, keeping in mind the problem at hand, the needs of the audience involved, and the available resources ● Decompose the functionality of a physical computing system into simpler features ● Implement a physical computing project, while following,	● Describe how digital images are composed of individual elements ● Recall that the colour of each picture element is represented using a sequence of binary digits ● Define key terms such as 'pixels', 'resolution', and 'colour depth' ● Describe how an image can be represented as a sequence of bits ● Describe how colour can be represented as a mixture of red, green, and blue, with a sequence of bits representing each colour's intensity ● Compute the representation size of a digital image, by multiplying resolution (number of pixels) with colour depth (number of bits used to represent the colour of individual pixels) ● Describe the trade-off between representation size and perceived quality for digital images

		problems for computer systems ● Question how malicious bots can have an impact on societal issues ● Compare security threats against probability and the potential impact to organisations ● Explain how networks can be protected from common security threats ● Identify the most effective methods to prevent cyberattacks	**Aims and activities of enterprises** • Aims of enterprises • Impact of activities in supporting the aims of enterprises • Impact of failing to undertake these activities successfully **Skills and characteristics of entrepreneurs** • Reasons why entrepreneurs start their own enterprise • Impact of the skills and characteristics of the entrepreneur in helping to support the aims of the enterprise	● Identify the steps of the investigative cycle ● Identify the data needed to answer a question defined by the learner ● Create a data capture form ● Describe the need for data cleansing ● Apply data cleansing techniques to a data set ● Visualise a data set ● Visualise a data set ● Analyse visualisations to identify patterns, trends, and outliers ● Draw conclusions and report findings	● Use variables to keep track of counts and sums ● Combine key programming language features to develop solutions to meaningful problems	revising, and refining the project plan ● Implement a physical computing project, while following, revising, and refining the project plan	● Perform basic image editing tasks using appropriate software and combine them in order to solve more complex problems requiring image manipulation ● Explain how the manipulation of digital images amounts to arithmetic operations on their digital representation ● Describe and assess the creative benefits and ethical drawbacks of digital manipulation (Education for a Connected World) ● Recall that sound is a wave ● Explain the function of microphones and speakers as components that capture and generate sound ● Define key terms such as ‘sample’, ‘sampling frequency/rate’, ‘sample size’ ● Describe how sounds are represented as sequences of bits ● Calculate representation size for a given digital sound, given its attributes

							● Explain how attributes such as sampling frequency and sample size affect characteristics such as representation size and perceived quality, and the trade-offs involved ● Perform basic sound editing tasks using appropriate software and combine them in order to solve more complex problems requiring sound manipulation ● Recall that bitmap images and pulse code sound are not the only binary representations of images and sound available ● Define 'compression', and describe why it is necessary
	How does it cover the NC? Refer explicitly to the NC or KS4 Assessment Objectives.	The topic meets the NC statement requirements for strands 3.9	The learning will link to current affairs – GREAT Lives, and the world outside of school. Numeracy and Literacy skills will be used as well as references to technological developments, historical events, and geographical areas. **Curriculum links to:** Maths	The topic meets the NC statement requirements for strands 3.8/3.9	The topic meets the NC statement requirements for strands 3.1/3.2/3.3/3.6	The topic meets the NC statement requirements for strands 3.1/3.2/3.3/3.6	The topic meets the NC statement requirements for strands 3.6

			English Geography				