Long Term Overview
KS3 Computing

	Unit Title	Digital Productivity	E-Safety	Coding Lego League	Creating media – Web page creation	Modelling Data	Creating media - Video production
Middle School YR7	Term	Autumn (a)	Autumn (b)	Spring (a)	Spring (b)	Summer (a)	Summer (b)
	No. Weeks	7 Weeks	8 Weeks	6 Weeks	6 Weeks	6 Weeks	6 Weeks
	What We Will Learn	Students will learn how to connect to the school network and sign in to their NTLP account. Students will learn how to use the school's computer system and Google Classroom to explore and manage files. They will understand how to create files and folders with reasonable names so that they can discover and return to their work after saving it.	Students will study online self-image and identity, as well as how this may affect our future selves and influence others. We'll look at how some people's online identities differ from their real identities, as well as how they can use a fake online identity. We will also learn how to keep our personal information safe while online.	Students will be using the Lego Spike to develop their understanding of computer science as they create sequences and loops, decompose problems, and improve programs in order to meet specific needs.	In this unit, students learn how to build websites with a specific goal in mind. Students identify the features of a good web page and use this knowledge to develop and assess their own website using Google Sites. Throughout the process, students pay close attention to the site's design, navigation, and copyright and fair use of media.	Students will learn about spreadsheets and how they might be used. In the first five lessons, students will learn how to format spreadsheets and enter specific formulas using a different spreadsheet template. They will use their investigative skills to address specific situations. Number calculations, sports league tables, test results, and budget planning are some examples. The last session provided an open-ended task for students to design their own spreadsheet with support from staff.	Students will get the opportunity to learn how to make short videos. They will be taught topic-based language and gain the skills of collecting, editing, and modifying video as they go through this course. Active learning is encouraged through asking guided questions, working as individuals, and exchanging ideas to help one another discover the usage of technologies and software. Students are guided step by step through the process of taking their idea from conception to completion.
	What We Will Do	Students will be introduced to the subject and taught the skills they need to use a computer system effectively and confidently. Students will create and design a variety of documents, as well as comprehend the many types of content that can be included. Students will work across software, using various formatting techniques to text and pictures, and save work with appropriate file names. To find certain items, we will conduct keyword searches on the internet.	Before beginning this unit, students will take an assessment to determine their current level of awareness of E-Safety. This will be done in the form of an online quiz. The second assessment will be a short individual tasks that will be completed in the classroom. Students will be tested on their knowledge and comprehension at the finish of the unit by creating an E-Safety poster to younger pupils and completing their workbook.	Students will investigate ways of accurately describing the decisions they've made when creating a program, carry out fair tests and develop their ability to generate and debug multiple solutions.	Students will investigate and analyse current websites' content as well as look at the many style tools available in Google Sites while creating their own web page on paper. Students will become aware of the phrases 'fair use' and 'copyright' during this unit. They will learn why they should only use copyright-free photos. Students will design their own web page or home page. They will preview their website as it will appear on various devices and recommend or make changes to improve it. Students will evaluate the effects of connecting to other people's material and establish hyperlinks to other people's work on their own websites.	Students will learn to calculate totals and averages for existing data, sort it by column, and then add or update it by following the instructions. They will be able to apply a variety of formatting approaches to ensure that their spreadsheet is clear and easy to read. Finally, we will learn how to present numerical data using several charts (column, bar, and pie chart).	Students will be introduced to video as a media format. They will investigate the capabilities of a digital gadget that can record video. Students will explore several filming techniques and then plan their own video by developing a storyboard. They will shoot their video before importing it into video editing software. Once students have finished their film, remove unnecessary information, and reorder their clips. Finally, they will export their completed video, evaluate the effectiveness of their improvements, and consider how they might share their film with others.
	Skills Learned	Students may apply their knowledge to set up suitable file and folder structures for storing their work (on both networked PCs and Google Drive), allowing them to access the rest of the programme. Students will practice the skills they learned at school and home, preparing them for the world of employment.	Students will understand the impact online image has people. They will have the skills on how to avoid becoming cyberbullied. Students will know who to speak to for support in this area and be able to help others who are reluctant to speak up about cyberbullying.	Students will have the skills to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	Students will know typical web page characteristics and recommend media to put on their website. They will understand how to locate copyright-free photographs and understand how to add material to their own web page, preview what their web page looks like, assess how their web page looks on different devices, and suggest/make changes.	The skills students will have learned will serve as the foundation for going on to more complicated spreadsheets as they progress through KS3 and into KS4.	Students' knowledge and understanding of creating media by guiding them systematically through the process involved in creating a video. The unit builds on another unit, 'Photo Editing." By the end of this unit, students will have developed the skills required to plan, record, edit, and share a video.

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	Unit Title	Digital Productivity	E-Safety / PowerPoint	Coding	Creating media – Web page creation	Modelling Data and Email	Creating Media - Video production
	Term	Autumn (a)	Autumn (b)	Spring (a)	Spring (b)	Summer (a)	Summer (b)
	No. Weeks	7 Weeks	8 Weeks	6 Weeks	6 Weeks	6 Weeks	6 Weeks
Rhodes & Year 8	**What We Will Learn**	Students will learn how to connect to the school network and sign in to their NTLP account. Students will learn how to use the school's computer system and Google Classroom to explore and manage files. They will understand how to create files and folders with reasonable names so that they can discover and return to their work after saving it.	Students will study online self-image and identity, as well as how this may affect our future selves and influence others. We'll look at how some people's online identities differ from their real identities, as well as how they can use a fake online identity. We will also learn how to keep our personal information safe while online. Students will learn the different types of information that can be used in a presentation. They will learn about copyright constraints, learn to store and retrieve information. Student will have learnt how to edit and format their slides in presentation software.	Student will learn about the following. Algorithms: where they will design, write and debugs modular programs using procedures. Uses logical reasoning to predict outputs, showing an awareness of inputs. Programming and Development: Understands the difference between, and appropriately uses if and if, then and else statements. Uses a variable and relational operator within a loop to govern termination. Understands the difference between, and appropriately uses if and if, then and else statement	In this unit, students learn how to build websites with a specific goal in mind. Students identify the features of a good web page and use this knowledge to develop and assess their own website using Google Sites. Throughout the process, students pay close attention to the site's design, navigation, and copyright and fair use of media.	Students supported in gathering and arranging data into columns and rows in order to develop their own data collection. Students will design an event and answer questions using spreadsheets. Students will have a better knowledge of spreadsheet structure. They will examine data items prepared in various ways and will pick formats for data items before applying formats in their own spreadsheet. Finally, students will produce charts and compare their results to the questions posed. Email:- students will learn how to compose an email, follow guidelines and procedures on how respond appropriately to formal and informal emails.	Students will get the opportunity to learn how to make short videos. They will be taught topic-based language and gain the skills of collecting, editing, and modifying video as they go through this course. Active learning is encouraged through asking guided questions, working as individuals, and exchanging ideas to help one another discover the usage of technologies and software. Students are guided step by step through the process of taking their idea from conception to completion.
	What We Will Do	Students will be introduced to the subject and taught the skills they need to use a computer system effectively and confidently. Students will create and design a variety of documents, as well as comprehend the many types of content that can be included. Students will work across software, using various formatting techniques to text and pictures, and save work with appropriate file names. To find certain items, we will conduct keyword searches on the internet.	Before beginning this unit, students will take an assessment to determine their current level of awareness of E-Safety. This will be done in the form of an online quiz. The second assessment will be a short individual tasks that will be completed in the classroom. Students will be tested on their knowledge and comprehension at the finish of the unit by creating an E-Safety poster to younger pupils and completing their workbook. Students will learn to input text and other information within presentation slides, use software tools to edit and format slides and prepare slides for presentation	Students will be introduced to the world of robotics competitions as they gradually learn the basics of building and programming autonomous robots using sensors. Working together to build an effective competition robot, they'll systematically test and refine programs, using the design process to develop a solution to complete missions, all the while developing skills related to collaboration and teamwork along with life skills for their future careers	Students will investigate and analyse current websites' content as well as look at the many style tools available in Google Sites while creating their own web page on paper. Students will become aware of the phrases 'fair use' and 'copyright' during this unit. They will learn why they should only use copyright-free photos. Students will design their own web page or home page. They will preview their website as it will appear on various devices and recommend or make changes to improve it. Students will evaluate the effects of connecting to other people's material and establish hyperlinks to other people's work on their own websites.	Students will learn the necessity of arranging data to enable computations, as well as the basics of formulae. They will start to see how they may be utilised to generate computed data. Students will learn how to apply formulas that encompass a range of cells and how to duplicate formulas to apply to numerous cells. Students will be able to recognise and manipulate input sand outputs, as well as compute data using various operations. Email: Students will learn how to write an email, as well as how to follow norms and procedures for responding correctly to official and informal emails.	Students will be introduced to video as a media format. They will investigate the capabilities of a digital gadget that can record video. Students will explore several filming techniques and then plan their own video by developing a storyboard. They will shoot their video before importing it into video editing software. Once students have finished their film, remove unnecessary information, and reorder their clips. Finally, they will export their completed video, evaluate the effectiveness of their improvements, and consider how they might share their film with others.
	Skills Learned	Students may apply their knowledge to set up suitable file and folder structures for storing their work (on both networked PCs and Google Drive), allowing them to access the rest of the programme. Students will practice the skills they learned at school and home, preparing them for the world of employment.	Students will understand the impact online image has people. They will have the skills on how to avoid becoming cyberbullied. Students will know who to speak to for support in this area and be able to help others who are reluctant to speak up about cyberbullying. Student will have learnt how to create a presentation using different types of information, have an understand about copyright. They will have a understanding on why it is importance of review their work to ensure there are no spelling or grammatical errors. These skills with support	The students will know choose appropriate blocks for performing controlled motions. Students can build programmes by stacking relevant move blocks together and some will have used the Colour Sensor to programme their Driving Base to react to lines. They will know how to create basic line-follower, students might utilise a "IF ELSE" statement in their programme.	Students will know typical web page characteristics and recommend media to put on their website. They will understand how to locate copyright-free photographs and understand how to add material to their own web page, preview what their web page looks like, assess how their web page looks on different devices, and suggest/make changes.	Student will have a knowledge and understanding of data, and how to organise and modify data within spreadsheets. They will have the skills to Solve problems involving addition, subtraction, multiplication, and division. The formulas and formatting student have learnt will provide them with skills to prepare them onto the next level in Functional skills. Students will have some understanding of how a spreadsheet can help them to manage their finances in adulthood.	Students' knowledge and understanding of creating media by guiding them systematically through the process involved in creating a video. The unit builds on another unit, 'Photo Editing." By the end of this unit, students will have developed the skills required to plan, record, edit, and share a video.

			students should they need to prepare or deliver a presentation in further education or employment.			Email: Students will understand the rules of email etiquette, which will help students when contacting organisations. Students will be able to detect phishing emails and how to deal with them in order to keep themselves safe.	

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	Unit Title	Digital Productivity	E-Safety	PowerPoint	Programming using Lego League	Modelling Data and Email	Introduction to Cybersecurity
	Term	Autumn (a)	Autumn (b)		Spring (a/b)	Summer (a)	Summer (b)
	No. Weeks	7 Weeks	3 Weeks	5 Weeks	12 Weeks	6 Weeks	6 Weeks
Borneo & Year 9	**What We Will Learn**	Students will learn how to connect to the school network and sign in to their NTLP account. Students will learn how to use the school's computer system and Google Classroom to explore and manage files. They will understand how to create files and folders with reasonable names so that they can discover and return to their work after saving it.	Students will study online self-image and identity, as well as how this may affect our future selves and influence others. We'll look at how some people's online identities differ from their real identities, as well as how they can use a fake online identity. We will also learn how to keep our personal information safe while online.	Students will learn how to make a master slide, whether they use a pre-defined template or build their own. Students will discover how to include items such as charts, tables, sounds, photos, and audio. They will also learn how to use transitional and animation effects to make their presentations more engaging and appealing to their audience.	Students will cover the following topics: - Algorithms: They will use processes to design, build, and debug modular programmes. Uses logical reasoning to forecast outputs while keeping inputs in mind. Programming and Development: Understands and correctly employs if and if then, and else statements. To control loop termination, a variable and a relational operator are used.	Students will use numerical and other information is required and how the spreadsheet should be constructed to suit those requirements. Enter and modify numbers and other data with precision. Store and retrieve spreadsheet files in accordance with local norms and customs, if applicable. To accomplish the calculating criteria, we shall employ functions and formulae. To produce, develop, and format charts and graphs, employ relevant tools and procedures. Email:- Students will learn how to construct and format e-mail messages using software tools. To store and retrieve contact information, use an address book. determine when and how to reply to email messages Sort and save e-mail messages.	Students will study the importance of data to businesses and how it is used. They will examine several internet businesses' privacy practises, be briefly introduced to data protection law, and reflect on why cybercriminals may want to obtain data. They will also be looking at social engineering and other prevalent cybercrimes, as well as how to defend oneself against such assaults. Students will obtain an understanding of the risks that cyberthreats bring to a network, followed by an examination of some of the most typical techniques of protecting a network from assaults, such as firewalls and anti-malware.
	What We Will Do	Students will be introduced to the subject and taught the skills they need to use a computer system effectively and confidently. Students will create and design a variety of documents, as well as comprehend the many types of content that can be included. Students will work across software, using various formatting techniques to text and pictures, and save work with appropriate file names. To find certain items, we will conduct keyword searches on the internet.	Before beginning this unit, students will take an assessment to determine their current level of awareness of E-Safety. This will be done in the form of an online quiz. The second assessment will be a short individual tasks that will be completed in the classroom. Students will be tested on their knowledge and comprehension at the finish of the unit by creating an E-Safety poster to younger pupils and completing their workbook.	Students will create a variety of presentations, including informative and instructional ones. They learn about the broad standards we adhere to when creating presentations, such as using different font sizes for headers, subheadings, and the main body of text to ensure that their presentation is appropriate for the audience, as they may not be aware if a member of the audience has visual impairment or dyslexia.	Students will be introduced to the world of robotics contests while learning the fundamentals of building and programming autonomous robots utilising sensors. Working collaboratively to create an effective competition robot, they will systematically test and refine programmes, utilising the design process to develop a solution in order to complete missions, all while developing skills related to collaboration and teamwork, as well as life skills for their future careers.	Students will be using spreadsheets to enter, edit and organise numerical and other data. Use appropriate formulas and tools to summarise and display spreadsheet information. Select and use appropriate tools and techniques to present spreadsheet information effectively. Email: - Use e-mail software tools and techniques to compose and send messages. Manage incoming e-mail effectively. We will be looking at how to attach documents, include URL's and how to create folders as well as adding a signature and setting an out of office.	This subject takes students on a journey of discovery as they learn about cybercriminals' techniques for stealing data, disrupting systems, and breaking into networks. The students will start by determining the worth of their data and how businesses may use it. Students will learn about a range of legislation relating to personal information.
	Skills Learned	Students may apply their knowledge to set up suitable file and folder structures for storing their work (on both networked PCs and Google Drive), allowing them to access the rest of the programme. Students will practice the skills they learned at school and home, preparing them for the world of employment.	Students will understand the impact online image has people. They will have the skills on how to avoid becoming cyberbullied. Students will know who to speak to for support in this area and be able to help others who are reluctant to speak up about cyberbullying.	Students will be able to design a presentation and use these abilities in an employment setting or during an interview. They will have improved their oracy abilities and learnt how to deliver information.	Students will have developed important skills such as working as a team, successfully collaborating, exploring inductive and deductive reasoning, developing ideas, and effectively communicating that they will utilise throughout their STEAM journey.	Students will understand how to apply formatting to make the spreadsheet more understandable and to highlight important statistics. Use data validation to reduce human error. Make use of conditional formatting techniques. Format the cells correctly and select the appropriate chart to represent the data. Recognise the significance of clear titles and labels. Email: Students will understand the rules of email etiquette, which will help students when contacting organisations. Students will be able to detect phishing emails know how to report to the relevant people in order to	Students will have the skill use technology safely, respectfully, responsibly, and securely, including preserving their online identity and privacy; recognising inappropriate information, contact, and behaviour; and reporting issues.

					keep themselves and their information safe whilst online.	