Additional Computing homework Tasks

Half Term	Year 7	Year 8	Year 9
Autumn Half Term 1	Watch some further videos and play the interactive games on the think you know it website from CEOP https://www.thinkuknow.co.uk/11_18/	How many of these puzzles can you solve : https://www.ncsc.gov.uk/information/cyberfirst-puzzle	Cybersecurity: Research and write a report on a recent cybersecurity threat or attack, including its impact and mitigation strategies.
		watch this video on bletchley park. https://www.youtube.com/watch?v=8FDeLnxCOXA	keep up to date with current technology news stories : https://www.bbc.co.uk/news/technology
Autumn Half Term 2	Hoe good is your logic problem solving, try this game out to find out and improve it - probelem solving is the building bricks for programming, so this is a great fun way to start : https://www.miniplay.com/game/magic-pen	Visit an escape room and try out your problem solving ability	Programming Languages: Learn a new programming language and complete a project or problem set in that language. Compare and contrast the features and advantages of two programming languages in a poster
	get your speed of typing up - use this site at home : https://www.typing.com/en-gb/student/tests	make your own board game or scratch game that has an escape room idea behind it - crack codes to wiin	
Spring Half Term 1	make your own micro:bit game - even without a micro:bit of your own you can use the online simulator try out these game ideas. https://makecode.m	keep up to date with current technology news stories : https://www.bbc.co.uk/news/technology	How many of these puzzles can you solve : https://www.ncsc.gov.uk/information/cyberfirst-puzzle
		try to solve some of these puzzles :https://www.braingle.com/brainteasers/24001/just-enough-time-to-deliver-the-message.html	get your speed of typing up - use this site at home : https://www.typing.com/en-gb/student/tests

	icrobit.org/projects/ games.		
Spring Half Term 2	create an animation at home using stop motion, this could be by using drawings or even lego people , https://apps.apple.com/us/app/stop-motion-studio/id441651297 send us your finished video	use WIX to build a website of your choice - this could be for a future business you hope to develop. or could be for a friend or family member who needs a website to be built https://www.wix.com/	research and present on new and emerging technologies in the field of computing, such as AI, virtual reality, or IoT device
			Machine Learning and AI: Implement a machine learning model for a specific task (e.g., image classification, natural language processing) and evaluate its performance. Study and replicate a recent research paper on a cutting-edge AI topic.
Summer Half Term 1	Make a scratch intercative story that uses variables to remember inputs	get your speed of typing up - use this site at home : https://www.typing.com/en-gb/student/tests	
	Research the history of computers or other digital devices such as games consoles or phones - create a presentation to show how these looked 20 years ogo, you could research some of the specifications of them also	Enjoyed learning python - why not complete one of this online courses to learn even more that will help you with your journey :https://snakify.org/en/ or https://www.codewars.com/	Enjoyed learning python - why not complete one of this online courses to learn even more that will help you with your journey :https://snakify.org/en/ or https://www.codewars.com/
Summer Half Term 2	Minecraft - if you are new to it, learn the basics and come along to club to get you started, if you are already confident, challenege yourself to a build project. an idea to start you off with could be: to create an automated farm using redstone circuits for automation. This might involve mechanisms for planting seeds, harvesting crops,	Minecraft - if you are new to it, learn the basics and come along to club to get you started, if you are already confident, challenege yourself to a build project. an idea to start you off with could be: to create an automated farm using redstone circuits for automation. This might involve mechanisms for planting seeds, harvesting crops, and collecting items. Encourage the use of command blocks if students are familiar with them, enabling them to create more complex automated actions.	why not now build your own virtual PC using part picker, https://uk.pcpartpicker.com/ once you have built your own virtual PC for lets say £1500, why not compare the spec of this to a ready made PC as you will see it is far cheaper to build your own

	and collecting items. Encourage the use of command blocks if students are familiar with them, enabling them to create more complex automated actions.		
	make your own Kodu game at home, software is free to download at home	Find an old or boken PC that is no longer needed and look at taking it apart, see if you can identify the key parts we have learnt about in lessons, RAM, CPU, power unit, motherboard, heat sink , secondary storage	Find an old or boken PC that is no longer needed and look at taking it apart, see if you can identify the key parts we have learnt about in lessons, RAM, CPU, power unit, motherboard, heat sink , secondary storage