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| **Term** | **Module Title** | **Learning Content / Skills** | **Assessment Schedule\*** | **Home Learning Support** |
| Autumn 1 | E-Safety | This is a theoretical unit covering the necessary basic knowledge to use computers safely, effectively and responsibly. Pupils begin by looking at file management and security. The unit then moves on to e-safety (cyber-bullying, phishing etc.), and online profiles to give pupils a better understanding and awareness of using social media. The functionality and operation of email and search engines and how to use them effectively are covered. The main aim is to understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct and know how to report concerns | Formative – Assessment of classroom work and homework tasks will be at least once every two weeks. These tasks will be marked on the 0-9 grading system using the unit mark sheets.  Reflection time will be given to students to work on their targets which will allow for an improvements in their grades on work which has already been marked.  An overall summative assessment will take place at the end of the module (end of term). This will be graded 0-9 using the unit mark sheets. | Watch the news and see if any of the crimes mentioned has been E-safety offence, if so which offence was it?  Visit the thinkuknow website to research further in to the topics of E-safety. Have a go at the quiz to see how secure your understanding of E-safety is so far.  Research articles about people who have been victims of identity theft and phishing.  Read over the class theory work on a regular basis. This will help students to develop their knowledge for the assessment at the end of the module.  Regularly check your school email account and get in the habit of communicating with your teachers via email. |
| Autumn 2 | Scratch | In the Scratch unit, students will be introduced to the key programming constructs such as Selection, Iteration and Sequencing. Students will be expected to plan and develop a computer game or animation using the scratch software. Students will be assessed on how well they are able to apply each of the programming constructs to their games or animations. The ability to debug applications will also be an important skill learnt during this unit.  Key skills: Logic Computational thinking  Sequencing Problem Solving | Formative – Assessment of classroom work and homework tasks will be at least once every two weeks. These tasks will be marked on the 0-9 grading system using the unit mark sheets.  Reflection time will be given to students to work on their targets which will allow for an improvements in their grades on work which has already been marked.  An overall summative assessment will take place at the end of the module (end of term). This will be graded 0-9 using the unit mark sheets. | Use scratchonline at home to practice skills learnt in lesson and trial out tutorials to get ideas when it comes to their own game development. |
| Spring 1 | Flowol | Students will be learning to use a software called Flowol which is a piece of control software which allows users to manipulate a real life example of a computer system, e.g. traffic lights, automation in homes etc. Students will learn how to construct flowcharts to illustrate the sequence in which particular computer algorithms take. They will learn how to ensure that their solutions are as efficient as possible by utilising subroutines and to understand why efficiency in computer programs is so important.  Key skills: Logic Computational thinking  Sequencing Problem Solving  Creating algorithms | Formative – Assessment of classroom work and homework tasks will be at least once every two weeks. These tasks will be marked on the 0-9 grading system using the unit mark sheets.  Reflection time will be given to students to work on their targets which will allow for an improvements in their grades on work which has already been marked.  An overall summative assessment will take place at the end of the module (end of term). This will be graded 0-9 using the unit mark sheets. | Investigate how products at home, operate using control systems.  Try writing algorithms for everyday processes you might do in the house. E.g. Going to bed, making a cup of tea, boiling and egg.  Try drawing flowcharts to represent different control systems in your house. |
| Spring 2 | **Spreadsheets** | Students will be introduced to the basics of spreadsheets. They will be creating and manipulating spreadsheet models for a fictional pet shop. They will learn to use tools such as validation and conditional formatting in order to complete the tasks. Students will be introduced to the concept of Lookup formulas in order to demonstrate how a formula can be used to facilitate interactions between different parts of the spreadsheet to improve functionality. Graphs will be examined in detail and students will learn how to create appropriate graphs for their data and how to format them effectively. Complex formulas such as IF formulas, Vlookup and data validation will also be covered.  Key Skills: Formatting Writing Formulas Cell Referencing Working with different data types Data Validation Conditional Formatting | Formative – Assessment of classroom work and homework tasks will be at least once every two weeks. These tasks will be marked on the 0-9 grading system using the unit mark sheets.  Reflection time will be given to students to work on their targets which will allow for an improvements in their grades on work which has already been marked.  An overall summative assessment will take place at the end of the module (end of term). This will be graded 0-9 using the unit mark sheets. | Create a spreadsheet of your timetable so you have a colour coded electronic copy.  Think of ways how a spreadsheet might be useful to help manage data and finance of the household.  Try creating a spreadsheet to monitor your pocket money/ allowance and your spending. Is there anything you are saving for? |
| Summer 1 & 2 | KODU | The unit is an introduction to the fundamentals of computer programming and games design via Kodu, a highly intuitive graphical development environment developed by Microsoft Games Lab. Pupils will be introduced to the idea of computer programs requiring a precise series of statements and, through using Kodu, will understand how to build a world and program characters and objects before moving on to enhance their games with more advanced features.  Key Skills: Block coding Logic  Computational thinking  Problem solving | Formative – Assessment of classroom work and homework tasks will be at least once every two weeks. These tasks will be marked on the 0-9 grading system using the unit mark sheets.  Reflection time will be given to students to work on their targets which will allow for an improvements in their grades on work which has already been marked.  An overall summative assessment will take place at the end of the module (end of term). This will be graded 0-9 using the unit mark sheets. | If you play on video games at home try taking in to consideration the different functions it has, e.g. character movement, collisions, enemies, different rooms, sound effects, visual effects.  Try writing the rules associated with the main character.  E.g. If A button pressed then character runs faster. |
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