#WeAreCyberSafe

Throughout the year Year 8 students will have one off cyber safety lessons which will cover the following topics, cyber safety will also be discusses during the units :

- Social media and Oversharing
- Social Engineering
- Online Gaming

When?	What?	Why?	How?	Support
Curriculum Overview for Information Technology and Computing - Year 8				
Summer Half Term - 2	**Programming**	Often programming is thought of as an unnecessary skill except for those going into the industry however the skills students learn also include: • *Perseverance* • *Problem Solving* • *Error Checking* • *Adaptation* • *Experimentation* • *Creativity* • *Decomposition …and many more.*	Students are given a chance to work at their own pace through a programming project. Programming at primary level may have involved the use of 'unplugged' lessons, where they learn computing concepts without the computer. Now at secondary school students will be putting these concepts into action using a program called Scratch. They will learn programming principles such as: • *Sequencing* • *Variables* • *Conditional Statements* • *Loops*	Programming units can be practiced at home on a variety of different online platforms. We will be using: • scratch.mit.edu eBook can be accessed via *Google Classroom*. In computing things often go wrong and the best programmers are never those who do things correctly first time, they are those who learn from their mistakes. This is something we hope that parents will help students to understand about our subject.

Autumn Half Term - 1	Mobile App Development	More than 90% of all connections on the internet today are made on mobile phones via custom created Apps. It is expected that the mobile app market will grow exponentially over the next couple of years. Companies now spend more on the development of interactive Apps than on website development.	Students will investigate the process of designing, developing and testing their own application, based on a project brief. They will include the following features: ● *Buttons* ● *Data input* ● *Interactive areas* ● *website links*	Students will benefit greatly from understanding why apps are so popular. They should spend time deciding why they use the apps they use and what would happen if these apps were suddenly unavailable. The documenting of idea plans are essential to this unit and development overall. Students who perform best in this unit will be those with the best plans, not necessarily the best ideas.

Autumn Half Term 1 to Spring Term 1	Interactive Digital Media Presentation	We engage and interact with digital media continuously , it is important to understand the key principles surrounding design , layout and user needs. When interacting with digital media the user should be able to access all content and become fully engaged in the presentation .	Students will build on skills developed during year 7 in regards to presenting information that is suitable for the target audience. Based around creating an interactive quiz on the history of gaming The key contents of produce development will be taught ● Planning ● Design ● Creation ● Testing and Reviewing The Interactive digital media presentation will allow students continue to develop knowledge surrounding editing of assets such as Images, Sound and Video	Students will benefit greatly from understanding what makes a fully interactive digital media presentation. The documenting of idea plans are essential to this unit and development overall, understanding the importance of testing and reflecting. Students who perform best in this unit will be those with the best plans, not necessarily the best ideas. Student may also want to practise their photoshop skills at home using the very similar site photopea

| Spring Half Term - 2 | **Programming** | Often programming is thought of as an unnecessary skill except for those going into the industry however the skills students learn also include:
● Perseverance
● Problem Solving
● Error Checking
● Adaptation
● Experimentation
● Creativity
● Decomposition
…and many more. | Now students will be using Python text based language to make their code.
They will learn programming principles such as:
● Sequencing
● Variables
● Conditional Statements
● Loops | Programming units can be practiced at home on a variety of different online platforms.
These include:
● scratch.mit.edu (revisit Year7 learning)
● pythonschool.net
● learnpython.org
● codeacademy.com
● codecombat.com/play |

| Summer Half Term - 1 | **Data Systems** | Data is stored about everything and students will need to start to learn not only how this data is stored and why, but how to keep their personal information safe.

In this unit, students will build their skills in using spreadsheets and databases, both of which many workings in the UK will use at some point in their working life. | Students will learn about the Data Protection Act and how to keep their data safe - what companies can store about you and how it can be used positively as well as the negative implications.

In addition, students will build skills on Microsoft Excel (Spreadsheet software) and Microsoft Access (database software). This will allow them to:

● *Sort and Filter Data*
● *Create Charts*
● *Create Reports*
● *Understand Structure of Data* | In computing lessons students will be using an '*eBook*'. This is an online version of an exercise book and where students make notes, complete work, complete homework and revise from. eBooks can be accessed via *Google Classroom*.

There are countless online resources for the use of spreadsheets and the formula learned in the previous unit, looking back at previous learning will guide progress during this unit |