ICT @ Oakfield – Year 9 2020-21

Autumn Term – Heroes of Computing		
Intent	**Implementation**	**Impact**
This unit will allow pupils an insight into the key people who have helped to develop technology over time. It will focus on developing learners understanding about how logical thinking and code breaking play fundamental roles in the use and development of computer systems. The unit will also allow learners to examine the development of computers into wearable technology and the development of the world wide web for the use of entertainment including shopping, communication and entertainment.	Learners will: • Understand the role of Charles Babbage and Ada Lovelace in the development of the first computer system (Difference Engine) • Understand the technological developments of Alan Turing and how its impact on the code breaking • Learn the developments that Bill Gates and Steve Jobs made to the computers we use today (Operating Systems, Wearable Technology) • Appreciate the development of the WWW by Tim Berners-Lee and how this has changed our lives • Understand the impact on our lifestyles by using technology for Internet searching, communication, shopping and entertainment	All learners will be able to identify some of the key developments in using computers and how this effects their everyday lives All learners will be able to take part in a range of activities to develop their understanding of how code breaking works All Learners will be able to produce digital products to show how the developments have impacted on their lifestyles (DIP: Vlog Camera, Weebly, Affinity photo)
Key Learning		
ICT Skills		

- Use software skills to demonstrate ability and understanding of how technological advancements have affected our lives

Digital Literacy
- Audience, purpose and design of IT Products

Computer Science
- Understanding different ciphers and code breaking techniques
- Revisiting the code used to develop web pages HTML

Topic Learning	Skills	Knowledge
Emerging	I can create a digital product with help to explain one person who has changed technology over time	I can show what technology I use
Launch	I can create a digital product to show a couple of people who have changed technology over time	I can explain what technology I use
Breakthrough	I can create a digital product to show key people who have changed technology over time	I can explain what technology I use and what I use it for
Foundation	I can create a digital product to show people who have changed technology over time which is suitable for the given audience	I can explain what technology I use, what I use it for and why I use it
Developing	I can create a digital product to show people who have changed technology over time which is suitable for the given audience and purpose	I can explain what technology I use and the benefits of using it
Intermediate	I can create a digital product that gives a timeline of the key people who have changed technology overtime that is suitable for the given audience and purpose	I can explain what technology I use and the benefits and drawbacks of using it

Spring Term – Cyber Crime		
Intent	**Implementation**	**Impact**
Cybercrime is on the rise and the purpose of this unit is to allow learners the opportunity to explore different areas of cybercrime in order to recognise and avoid techniques used to manipulate people online.

The unit develops relevant skills such as decision making, risk assessment and the effective use of exit strategies whilst providing key facts and information about different types of cybercrime.

Learners will develop their video editing and animation creation skills to warn others of the dangers of cybercrime. | Learners will:
- Recognise what cybercrime is, the impact that it has
- Understand some different types of cybercrime such as email scams, hacking, viruses and malware
- Learn how identify different types of cybercrime to enable them to avoid manipulation online
- Research the effects of committing cybercrime on both the victim and the perpetrator
- Where to seek support and understand the positive pathways when using computers
- Produce digital products to show their understanding of the key concepts covered | All learners will be able to explain what cybercrime is and what this could look like for them

Learners are able to articulate what to look for completing everyday computing tasks such as; receiving emails and downloading files and how to minimise these risks

Learners are able to provide support to others to help them avoid being manipulated online

Learners are able to distinguish between the good and not so good features of using computers

Learners use video editing and animation skills to produce effective digital products to explain what cybercrime is, the dangers, how to protect yourself and the impact if precautions aren't taken
(DIP Order: Microphones, Vlog Camera, Weebly) |
| **Key Learning** | | |
| **ICT Skills**
- Research information, images and content online. | | |

- To be able to show an awareness of the key elements of cybercrime and how to minimise the risks

Digital Literacy

- Using animation software to produce digital products to inform others of the dangers of cybercrime
- Using Video editing software to produce digital products to educate others on the dangers of cybercrime

Computer Science

- Develop an understanding of Cyber Security and what this means including the use of firewalls

Topic Learning	Skills	Knowledge
Emerging	I can create a digital product to tell people some ways of how to stay safe online	I know a way to stay safe online
Launch	I can create a digital product to explain what cybercrime is and how to stay safe online	I can explain what cybercrime is
Breakthrough	I can create a digital product inform others about cybercrime and some of the risks when using computers	I can explain what cybercrime is and give examples
Foundation	I can create a digital product to show people the impact of cybercrime and ways to stay safe online	I can explain what cybercrime is and how to minimise some risks when using computers
Developing	I can create a digital product to show people why they need to stay safe when using computers online	I can explain the impact cybercrime has on the victim
Intermediate	I can create a digital product that shows the impact that cybercrime has on individuals who it has happened to and why people want to take part in cybercrime	I can explain the impact cybercrime has on the victim and the perpetrator

Summary		
Summer Term – Showcasing my Skills		
Intent	**Implementation**	**Impact**
As the last unit during the KS3 schemes of work the purpose of this unit is to allow learners the opportunity to show off the skills they have learnt across Years 7,8 and 9. Learners will be given a topic and asked to use the skills they have developed to produce a range of different digital products. They will then use a range of research and design skills to create a vlog about different career opportunities within the IT industry as they embark on the next stage of their education.	Learners will: • Be able to look at a design brief and pick out the key points and success criteria • Plan out digital products to meet their original specification (DIP: Weebly, Microphones. Affinity Photo,Vlog Camera) • Produce digital products using a range of software to meet the needs of the task (DIP: Weebly, Microphones. Affinity Photo,Vlog Camera) • Review their work against the original objectives to see if they have completed the task • Identify the skills and attributes they have used to complete IT work and how they map to different roles within the IT industry	Learners will produce a collection of digital products that meet a client brief Learners will review and evaluate their work Learners will be able to identify their strengths and weaknesses in a range of different IT skills Learners will be able to show where the skills they have develop map to different careers within the IT Industry Learners will produce blogs/vlogs to show different IT Careers and the skills they use
Key Learning		
ICT Skills		

- Research information & images
- Software to create blogs and vlogs
- Identifying skills used for careers within the IT industry

Digital Literacy

- Producing digital products that match a set of requirements
- Reviewing and evaluating work
- Communicating and work together to produce a product

Computer Science

- Understanding key roles within the industry and the skills required for the tasks

Topic Learning	Skills	Knowledge
Emerging	I can create a digital product	I can show which pieces of technology different job roles use
Launch	I can create some digital products	I can identify some roles in the IT industry
Breakthrough	I can create some digital products that are suitable for required task	I can identify some of the skills needed for roles in the IT industry
Foundation	I can create some digital products that meet some of the set criteria	I can identify some roles in the IT industry and explain if I would like to do them
Developing	I can create some digital products that meet most of the set criteria	I can identify the types of roles in the IT Industry that match my strengths
Intermediate	I can create some digital products that meet all of the set criteria	I can identify steps I would need to take to improve my skills for certain IT roles