Halebank Church of England Primary School

Curriculum Information: Computing

Curriculum Intent

The rationale for computing at Halebank, which is based on the National Curriculum aims, ensures that all pupils are provided with opportunities to:

- understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- be responsible, competent, confident and creative users of information and communication technology

National Curriculum: Purpose of Study

The planning and delivery of the music curriculum is linked closely to the National Curriculum purpose of study as follows:

'A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.'

Additionally, the computing curriculum will support the development of online safety for all users.

Children have the right to enjoy childhood online, to access safe online spaces, and to benefit from all the opportunities that a connected world can bring to them, appropriate to their age and stage. As they grow older, it is crucial that they learn to balance the benefits offered by technology with a critical awareness of their own and other's online behaviour and develop effective strategies for staying safe and making a positive contribution online.

To ensure the appropriate delivery of online safety teaching, Halebank C E Primary will follow a curriculum developed from Education for a Connected World – 2020 edition A framework to equip children and young people for digital life.

The provision of computing is aligned with the school's *Statement of Intent*, particularly that the computing curriculum motivates and engages learners, and enables them to think critically, analyse and reflect.

Implementation
At Halebank C E Primary School we have made the decision to incorporate Online Safety into our Computing curriculum after observation has shown that our pupils engage in often unhealthy activity online. At the current time, class teachers deliver the curriculum to pupils in Key Stage 1 and Key Stage 2. Teach Computing (computing) and ProjectEvolve (online safety) are the schemes used to deliver the computing curriculum alongside the PHSE and RSE curriculums which specify the outcomes for online safety. Cross-curricular computing and ICT opportunities are built into the wider curriculum. The sequencing of lessons is set out in the 2-year long term plan (Year A and Year B).

Computing: Year A   Teach Computing/Project Evolve

https://teachcomputing.org/curriculum   https://projectevolve.co.uk/toolkit/resources/strand/

Y1/2 Computing and online safety units	**Computing Systems and Networks – Technology Around Us**	**Self-Image and Identity -** 1-3 **Online Relationships** 1-6	**Creating Media – Digital Painting/Digital Writing**	**Health, Wellbeing and Lifestyle** 1-2 **Privacy and Security** 1-5	**Programming Making A Robot/Introduction to Animation**	**Managing Online Information** 1-5 **Copyright and Ownership** 1-4
Y1/2 Ongoing/ cross curricular learning	**Multimedia** Record sound at and away from a computer Use software to record sounds *Video* Capture video Discuss which videos to keep and which to delete **Data and Information** Grouping Information				**Learning online** *Online Reputation1-3/Online Bullying1-3*	
Y3/4 Computing and online safety units	**Computing Systems and Networks – Connecting Computers**	**Self-Image and Identity** 1-3 **Online Relationships** 1-4	**Creating Media – Animation/ Desktop Publishing**	**Health, Wellbeing and Lifestyle** 1-3 **Privacy and Security** 1-4	**Programming – Sequence in Music/Events and Actions**	**Managing Online Information** 1-8 **Copyright and Ownership** 1-2

Y3/4 Ongoing/ cross curricular learning	**Multimedia** *Text* *Get quicker at typing with both hands* *Use a variety of font sizes, styles and colours* *Align text left, right and centre* *Graphics* *Acquire, store and combine images from cameras or the internet for a purpose* *Use the print screen function to capture an image*		**Data & Information** *Branching Databases*		**Learning online** *Blogging* *Navigate to view their class blog* *Understand that it can be updated from a range of devices* *Comment on their class blog* *Internet research* *Talk about the reliability of information on the internet (fact and opinion)* *Online Reputation 1-2/Online Bullying 1-3*	
Y5/6 and online safety units	**Computing Systems and Networks – Sharing Information**	**Self-Image and Identity** *7-9* **Online Relationships** *9-13*	**Creating Media – Vector Drawing/Video Editing**	**Health, Wellbeing and Lifestyle** *7-9* **Privacy and Security** *9-12*	**Programming – Selection in Physical Computing/ Selection in Quizzes**	**Managing Online Information** *17-24* **Copyright and Ownership** *5-6*
Y5/6 Ongoing/ cross curricular learning	**Multimedia** *Presentation (PowerPoint)* *Work independently to create a multi slide presentation that includes speaker's notes* *Use transitions and animations to improve the quality of the presentation* *Include sounds and moving graphics in the slides* *Present to a large group or class using the notes made*		**Data & Information** *Flat File Databases*		**Learning online** *Blogging* *Navigate to view their class blog* *Understand that it can be updated from a range of devices* *Comment on their class blog* *Internet research* *Talk about the reliability of information on the internet (fact and opinion)* *Online Reputation 5-7/Online Bullying 7-9*	

Computing: Year B	Teach Computing/Project Evolve					
https://teachcomputing.org/curriculum			_https://projectevolve.co.uk/toolkit/resources/strand_ /			
Y1/2 _Computing and online safety units_	**Computing Systems and Networks – IT Around Us**	**Self-Image and Identity** 4-5 **Online Relationships** 7-13	**Creating Media – Digital Photography/Making Music**	**Health, Wellbeing and Lifestyle** 3-5 **Privacy and Security** 6-9	**Programming – Robot Algorithms/An Introduction to Quizzes**	**Managing Online Information** 6-10 **Copyright and Ownership** 5-8
Y1/2 _Ongoing/ cross curricular learning_	_Multimedia_ _Graphics (Pic collage/Chatterpix)_ _Save, retrieve and print work_ _Text_ _Use spacebar, backspace, delete, arrow keys, return_ _Start to use two hands when typing_ _Word process short texts to present to others_ _Sound recording_ _Change sounds recorded_ _Save, retrieve and edit sounds_		_Data & Information_ _Pictograms_		_Learning online_ _Email and messaging_ _Open and select to reply to an email as a class_ _Learn how messages can be sent via text (SMS/iMessage) instant messages and email_ _Online Reputation 4-6/Online Bullying 4-6_	
Y3/4 _Computing and online safety units_	**Computing Systems and Networks – The Internet**	**Self-Image and Identity** 4-6 **Online Relationships** 5-8	**Creating Media – Audio Editing/Photo Editing**	**Health, Wellbeing and Lifestyle** 4-6 **Privacy and Security** 5-8	**Programming – Repetition in Games/Repetition in Shapes**	**Managing Online Information** 9-16 **Copyright and Ownership** 3-4

Y3/4 *Ongoing/ cross curricular learning*	**Multimedia** *Presentation (PowerPoint and Publisher)* *Create a title slide and choose a style* *Change the layout of a slide* *Insert a picture/text/graph from the internet or personal files* *Decide upon and use effective transitions* *Create a leaflet/poster*		**Data & Information** *Data Logging*		**Learning online** *Email* *Log into an email account* *Open, create and send an email* *Attach files to an email* *Download and save files from an email* *Email more than one person and reply to all* *Online Reputation 3-4 /Online Bullying 4-6*	
Y5/6 *Computing and online safety units*	**Computing Systems and Networks - Communication**	**Self-Image and Identity** *10-11* **Online Relationships** *14-18*	**Creating Media – 3D Modelling/Web Page Creation**	**Health, Wellbeing and Lifestyle** *10-12* **Privacy and Security** *13-16*	**Programming – Variables in Games /Sensing**	**Managing Online Information** *25-32* **Copyright and Ownership** *7*
Y5/6 *Ongoing/ cross curricular learning*	**Multimedia** *Graphics* *Select certain areas of an image and resize, rotate and invert the image* *Edit pictures using a range of tools in a graphics program* *Animation (I Can Animate/2animate)* *Plan what they would like to happen in their animation* *Take a series of pictures to form an animation* *Move items within their animation to create movement on playback* *Edit and improve their animation*		**Data & Information** *Spreadsheets*		**Learning online** *Online Reputation 8-9 /Online Bullying 10-13*	

Self-Image and Identity - *shaping online identities and how media impacts on gender and stereotypes.*
Online Relationships- *Relationships and behaviours that may lead to harm and how positive online interaction can empower and amplify voice.*
Health, Wellbeing and Lifestyle - *The impact that technology has on health, well-being and lifestyle including understanding negative behaviours and issues amplified and sustained by online technologies and the strategies for dealing with them.*
Privacy and Security - *Behavioural and technical strategies to limit impact on privacy and protect data and systems against compromise.*
Managing Online Information - *Strategies for effective searching, critical evaluation and ethical publishing.*