UNSWORTH PRIMARY SCHOOL
Scheme of Work for Computing
Year 4

National Curriculum 2014

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Digital Literacy

Skills

Animation (I can animate app)

- 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/improve their animation.

Video (iMovie trailer)

- Capture video for a purpose.
- Discuss the quality of videos and chose which to keep and which to re-shoot.
- Trim and arrange clips to convey meaning.
- Add titles, credits, slide transitions, special effects and talk about the effect these have on the audience.
- Select, use and combine a variety of software on a range of digital devices to accomplish given goals.

Microsoft Word/Keynote/Pages/Pic Collage/Comic Life/Explain Everything

- Use appropriate editing tools to ensure their work is clear and error free, e.g., spell checker, thesaurus, find and replace.
- Select and import sounds from other sources, e.g., own recordings, sound effects and music.
- Recognise and use key layout and design features, e.g., text boxes, columns and borders.
- Insert and edit simple tables.
- Create a range of hyperlinks and produce an interactive presentation.

Programming

Skills

Scratch *Racing car*

- Navigate the Scratch programming environment.
- Create a background and sprite for a game.
- Add inputs to control their sprite.
- Use conditional statements (if… then) within their game.

2code Chimp Level & Gibbon/Purple Mash Logo/Probots

- Use the repeat command to draw shapes within logo.
- Experiment with angles to draw shapes and patterns to move a sprite.
- Add a sprite.
- Program their sprite to navigate the screen following their algorithm.
- Use conditional statements ('if…then')
- Design, write and debug programs that accomplish specific goals.

Data

Skills

- Create and search a branching database from information selected.
- Raise their own questions and translate them into search criteria that can be used to find answers.
- Use a data logger to 'snap shot' a series of related but separate readings in an investigation.
- Use data loggers both connected to the computer (live) and remotely, transferring data to appropriate software at a later stage.

Online

Skills

Emails

- Log in to an email, open emails, create and send replies.
- Attach files to an email and save files from an email.
- Email more than one person and participate in group emails by 'replying to all'.

Video conferencing

- Make/receive a voice and/or video call from school Skype.
- Adjust the audio/video settings to ensure good quality of the call.

Internet Research

- Use appropriate tools to save and retrieve accessed information, e.g., through the use of favorites, history, copy/paste and save as.
- Identify whether a file has copyright restrictions and can be legally downloaded from the internet then used in their own work.
- Know how to temporarily allow useful pop-ups from a website.

E-safety

Skills

Weaved throughout all aspects

- Recognise social networking sites and features built into other things.
- Make judgements in order to stay safe, whilst communicating with others online.
- Tell an adult if anything worries them online.
- Identify dangers when presented with scenarios, social networking profiles, etc.
- Articulate examples of 'good' and 'bad' behaviour online.

Assessment

Digital Literacy

- Are ch able to create an animation built from their own pictures?
- Can ch use iMovie to edit their own film/trailer of learning within an enquiry?
- Are ch able to choose an app/program and use a template to create a presentation including a hyperlink?

Programming

- Can ch use Scratch to create their own basic program using inputs?
- Are ch able to navigate a sprite round a virtual world using a series of commands?
- Can ch edit commands to solve problems?

Online

- Can ch attach/save files from an email?
- With support can ch use Skype to make or receive a call linked to an enquiry?
- When using the Internet are children able to adhere to copyright procedures?

E-safety

- Can ch write/discuss the dangers associated with social networks?

Data

- Can ch create a branching database and conduct a search?
- Are ch able to use a data logger to collect data to put with a science enquiry.