Ashford Oaks Primary School Computing Scheme of Work – Year 3

	Multimedia and Word processing	Digital media	Programming 2 forms/languages	Communication and Collaboration	Data	E-Safety
Year 3	• Evaluate a range of printed and electronic texts, appropriate to task e.g newspaper, poster, webpage, Photo story, and recognise key features of layout and design • Select and import graphics from digital cameras, graphics packages and the Internet • if multimedia, select suitable sounds (including recording with a microphone) and visual effects • organise and present information for a specific audience • Through peer assessment and self evaluation, evaluate design and make suitable improvements • Recognise the difference and the advantages and disadvantages between electronic media and printed media and select key features when designing publications **When word processing children should:** • use font sizes and effects appropriately to fit purpose of text • recognise key features of layout and design such as text boxes, columns, borders, WordArt • develop further basic drafting and editing skills • cut, copy and paste between applications • use spell checker • delete, insert and replace text using mouse or arrow keys • begin to use more than two fingers to enter text	**Digital Imagery** • To use still and video cameras, independently • To take photographs with a digital microscope • To evaluate quality of footage taken • To understand the need to frame shots and keep the camera still • To download still images and video • to sequence still images and video and use simple editing techniques to create a presentation • create a simple animation either by using stop-motion techniques with a webcam, or by using animation software **Music and Sound** • use ICT to select and record sounds in multimedia software • use music software to organise and reorganise sounds • locate, record, save and retrieve sounds • To begin to layer sounds using music composition software, Audacity or Podium • Add sounds from different sources.	**Programming Unit 1 : Scratch – Animation** • Navigate the Scratch programming environment. • Create a background and sprite for animation • Change background after a specific time. • Add inputs to control their sprite. • Change position of sprite on screen. **Programming Unit 2: Logo** • Write a simple program in Logo to produce a line drawing. • Use more advanced Logo programming, including pen up, pen down etc. • Write a program to reproduce a defined problem, e.g. geometric shape/pattern.	**Messaging** • In online discussion: start new threads and contribute to others relevant to the topic; consider relevance of contributions • Begin to experience other forms of online discussion, such as blogs, wikis, quizzes, surveys and video conferencing **Publishing** • Begin to personalise your own Learning Platform page, adding a photo and favourite web links • Access a shared space to follow web links and read instructions for work • upload work to a shared space	• To choose, print and annotate appropriate graphs, to answer simple questions e.g. bar charts, or pie charts and interpret data **Database** • Collect information by designing and using a simple questionnaire to record numbers, text and choices. • As a class, design what information needs to go on record cards • Create record cards to store collected information • Use a database to generate bar charts and graphs to answer questions • Answer questions by searching and sorting the database	**E-Safety** **Online Research** Use child-friendly search engines independently to find information through key words. Understand that the Internet contains fact, fiction and opinions and begin to distinguish between them. **E-Safety** **Communication & Collaboration** Use a range of online communication tools, such as email, forums and polls. Know how to deal with unpleasant forms of electronic communication (save the message and speak to a trusted adult). Be able to discern when an email should or should not be opened. **E-Safety** **E-Awareness** Develop awareness of relevant e-Safety issues, such as cyber bullying. Children understand and abide by the school's 'Being SMART Online' Rules and know that it contains rules that exist in order to keep children safe online. Understand what personal information should be kept private. Know that passwords keep information secure and that they should be kept private

Unit/Project	Statutory requirements/ key skills	Notes	Possible outcomes and activities
Multimedia and word processing	• Evaluate a range of printed and electronic texts, appropriate to task e.g newspaper, poster, webpage, Photstory, and recognise key features of layout and design • Select and import graphics from digital cameras, graphics packages and the Internet • if multimedia, select suitable sounds (including recording with a microphone) and visual effects • organise and present information for a specific audience • Through peer assessment and self evaluation, evaluate design and make suitable improvements • Recognise the difference and the advantages and disadvantages between electronic media and printed media and select key features when designing publications **When word processing children should:** • use font sizes and effects appropriately to fit purpose of text • recognise key features of layout and design such as text boxes, columns, borders, WordArt • develop further basic drafting and editing skills • cut, copy and paste between applications • use spell checker • delete, insert and replace text using mouse or arrow keys • begin to use more than two fingers to enter text	**Multimedia Authoring packages: Powerpoint – Create slides and add pictures, text, WordArt, Video** **Word processing packages: Word** – Word processor **Touch Typing Course** – www.typingclub.com Mat Typing (www.bbc.co.uk/schools/typing) Purple Mash – 2type Chrome books	**Combine text, graphics and possibly other features to create both printed documents and multimedia presentations** Literacy – Write up piece of work Topic – Create a multimedia presentation. Poetry – make a poster for a poem with text, images, relevant colours etc. Topic – email questions to children at another school for them to research and answer. I can help you find a link school if needed.
Digital Imagery	• To use still and video cameras, independently • To take photographs with a digital microscope • To evaluate quality of footage taken	Suggested Resources: **Chromebook video/ photo** **Windows Movie Maker** - Video editing software which allows **2Animate** – Simple animation program	**Use digital cameras and camcorders independently, considering purpose and quality of footage; review, edit and sequence** Topic – Take a picture through the class windows and edit

	• To understand the need to frame shots and keep the camera still • To download still images and video • to sequence still images and video and use simple editing techniques to create a presentation • create a simple animation either by using stop-motion techniques with a webcam, or by using animation software		pictures to show changes. Keep photos as separate pictures and the play together using Chromebook app -More able could add music and voice over to explain the changes. Literacy – Stop motion animation of a story. Literacy – Record drama with more than one scenes and put together using video editing software. Science – Create animation to explain a science idea.
Music and Sound	• use ICT to select and record sounds in multimedia software • use music software to organise and reorganise sounds • locate, record, save and retrieve sounds • To begin to layer sounds using music composition software, Audacity or Podium • Add sounds from different sources.	**Suggested Resources:** **EasiSpeak Microphone** - Simple microphones which allow recording of sounds **2 Simple Music Toolkit** - A range of music related programs for adding sounds, creating phrases etc... **Podium** – Simple sound editing program in which sound clips can be added Online sources of sounds: www.findsounds.com; Audio Network http://audio.lgfl.org.uk ; Microsoft ClipArt Online	**Compose music for a specific purpose** Once upon a time – create music to go with a written story.
Programming Unit 1 : Scratch – Animation	• Navigate the Scratch programming environment. • Create a background and sprite for animation • Change background after a specific time. • Add inputs to control their sprite. • Change position of sprite on screen	Scratch activity cards and tutorials at http://scratch.mit.edu/help/ Blog by Simon Haughton with lots of ideas and lesson plans http://www.simonhaughton.co.uk/scratch-programming/	**Create an animation with changing slides and a sprite that moves. Use speech bubbles to add information.** Topic – Create animation about children's current topic. Science – Explain a Scientific process through use of slides.
Programming Unit 2: Logo	• Write a simple program in Logo to produce a line drawing.	Use 2Go or online turtle program such as http://www.mathplaygr	**Instruct turtle to create pictures using simple shapes**

	• Use more advanced Logo programming, including pen up, pen down etc. • Write a program to reproduce a defined problem, e.g. geometric shape/pattern.	ound.com/mathprogramming.html Purple Mash – Logo – in Tools	Topic - Create simple picture linked to topics.
Communication and Collaboration	**Messaging** • In online discussion: start new threads and contribute to others relevant to the topic; consider relevance of contributions • Begin to experience other forms of online discussion, such as blogs, wikis, quizzes, surveys and video conferencing **Publishing** • Begin to edit pages on Learning Platform adding a photo and favourite web links • Access a shared space to follow web links and read instructions for work • upload work to a shared space	Suggested Resources **Email** – Class email **VLE** –School's online classroom where children's work can be uploaded. Also has chat, vote, quiz and forum functions Use google classroom chat	**Share work and work collaboratively through a shared online space** Topic – email questions to children at another school for them to research and answer. I can help you find a link school if needed. Topic – Create a page on the Learning Platform about the term's topic. Literacy – Use a brainstorm forum to collect children's descriptions of a setting. Allow children to read other's contributions PSHE – Discuss problems by adding contributions in a forum. Start a new thread for a new question. **Link to E-Safety** • Children begin to use a range of online communication tools, such as forums, email and polls in order to formulate, develop and exchange ideas.
Data	• To choose, print and annotate appropriate graphs, to answer simple questions e.g. bar charts, or pie charts and interpret data **Database** • Collect information by designing and using a simple questionnaire to record numbers, text and choices. • As a class, design what information needs to go on record cards	Database links well with Science units Suggested Resources **2Investigate – Simple program for creating databases** **Excel**- Create graphs and spreadsheets Google sheets	**Research information and enter data into a database. Use it to ask and answer straightforward questions and produce bar charts.** Science – Create a database on the features and properties of rocks or materials Literacy – Read a story to the class involving a mystery. Pupils input key statements into a database and then use

	• Create record cards to store collected information • Use a database to generate bar charts and graphs to answer questions • Answer questions by searching and sorting the database		search and sort skills to identify the criminals

Unit/Project	Statutory requirements/ key skills	Notes	Possible outcomes and activities
E-Safety Online Research	• Use child-friendly search engines independently to find information through key words. • Understand that the Internet contains fact, fiction and opinions and begin to distinguish between them.	Children's search engines; www.kidsclick.org http://kids.yahoo.com/ www.askforkids.com Tomato Spider spoof website Inaccurate information online; Captain Kara and Winston's SMART Adventure (KnowITall), chapter 2, "What is Reliable?" SMART Rule - RELIABLE	This could be taught as a separate Life Skills lesson or as part of another ICT lesson. Refer to the E-SMART rules.
Communication & Collaboration	• Use a range of online communication tools, such as email, forums and polls. • Know how to deal with unpleasant forms of electronic communication (save the message and speak to a trusted adult). • Be able to discern when an email should or should not be opened.	Unsolicited emails and attachments; Captain Kara and Winston's SMART Adventure (KnowITall), chapter 1, "What should you keep Accept?" SMART Rule – Messages, Tell, Accepting (refer to the school's SMART Rules.	This could be taught as a separate Life Skills lesson or as part of another ICT lesson. Refer to the E-SMART rules.
E-Awareness	• Develop awareness of relevant e-Safety issues, such as cyber bullying. • Children understand and abide by the school's 'Being SMART Online' Rules and know that it contains rules that exist in order to keep children safe online. • Understand what personal information should be kept private. • Know that passwords keep information secure and that they should be kept private.	Google BE Internet Legends scheme of work Y3 https://beinternetlegends.withgoogle.com/en-gb/toolkit KS1 and 2 Safer Internet Day Assembly video **http://www.thinkuknow.co.uk/teachers/** **Dongle Stay Safe quiz http://www.bbc.co.uk/cbbc/help/web/staysafe** **Dongle's factsheet**	This could be taught as a separate Life Skills lesson or as part of another ICT lesson. Refer to the E-SMART rules.

		http://www.bbc.co.uk/cbbc/help/web/factsheet.html **Personal information;** Inaccurate information online; Captain Kara and Winston's SMART Adventure (KnowITall), chapter 3, "What should you keep Safe?" Schools 'Being SMART Online' poster. SMART Rules – Safe, Purple Mash – Unit 3.5 – Email –incl esafety	

Coding Challenge: **What can you draw in 'Move the Turtle?'**

Pupils should be set the challenge to draw geometric shapes within Logo type program. These shapes may be defined by the teacher or by other pupils as they challenge each other. Such shapes may be made more complex with different sides being different colours or with more than one shape on a page without a connecting line. Ask an extension covering angles, could pupils reproduce the shape below? (Perhaps linking with a science unit on forces?)