Year 2 Progression Grid Computing

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Autumn 1:  iProgram  iSafe( health week focus) | Autumn 2:  iBlog- practical lessons  Word processing skills  PicCollage/word | Spring 1:  iAnimate | Spring 2:  iSearch | Summer 1:  iPublish | Summer 2:  Word processing skills |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Unit iProgram** |  | | |
| **Knowledge** | | | **Skills** | **National Curriculum** |
| \*I can sequence a set of instructions for making a sandwich.  \*I can create a sequence of instructions.  \*I can use repeat instructions.  \*I can draw my own sprite using software.  \*I can create a simple animation.  \*I can program two sprites to talk to each other.  \*I can make a simple animation which has a background and sprites moving and talking | | | \*To understand that an algorithm is a process that consists of a series of steps that achieves a specific goal.  \*Understand algorithms can describe everyday activities can be followed by humans and computers. \*To know that steps can be repeated.  \*To understand that computers need more precise instructions than humans do.  \*To understand that programming applications can be given commands to produce specific effects on screen.  \*To use digital drawing tools (Scratch) to create images.  \*To program a simple animation involving movements.  \*To write a simple program that produces an output (text).  \*To combine images and text to create a simple animation.  \*Produce a sequence of blocks that achieve a simple effect (e.g. move a sprite around the screen)  \*Plan and give direct instructions to make things happen (e.g. playing robots)  \*Produce a sequence of instructions that result in a planned outcomes. \*Program a short sequence of commands that results in a planned effect.  \*Program and test a simple program.  \*Create algorithms to solve problems | \*Understand what algorithms are: how they are implemented as programs on digital devices. \*Understand that programs execute by following precise and unambiguous instructions.  \*Use logical reasoning to predict the behaviour of simple programs.  \*Create and debug simple programs |
| **Vocab**  Algorithm, instructions, sequence, program, repeat, test, debug | | | **Key Questions**  What is an algorithm? *A set of instructions that are followed to achieve a task.*  How do we give computers instructions? What does debug mean?  *In ‘code’ Instructions given in a language computers can understand. Fixing problems in computers* Which Scratch blocks would you use repeat an action? | |
| **Cross Curricular Links:**  Mathematics, English, Art, Design & Technology | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | |  | |
|  | | |  | |
|  | **Unit: iSafe** |  |  | |
| **Knowledge** | | | **Skills** | **National Curriculum** |
| \*I can explain why I shouldn’t open an email or attachment without permission. \*I can talk about why I should not talk to strangers online.  \*I can use ICT to communicate online. \*I can talk about some ways I can stay safe when using technology.  \*I know that some websites are aimed at me and some are better for what I am looking for. \*I understand the need to treat others as I would like to be treated online.  \*I know that some people are not nice online and can bully.  \*I can talk about when I would need to tell a trusted adult about something online.  \* I can search for things online.  \*I know that some websites are aimed at me and some are better for what I’m looking for | | | \*Identify some ways they can keep themselves safe when using ICT. \*Use ICT to communicate, identify some of the risks and act to minimise them    \*To understand what personal information means.  \* To understand that personal information is unique to themselves. \*To understand that personal information should only be given to trusted adults.    \*To understand that not everyone you meet is trustworthy.  \*To begin to identify the characteristics of people who are worthy of trust and who can help them make choices that keep them safe. \*Identify a risky situation when a trusted adults help be needed. \*To understand that emotions can be a tool to help judge unsafe situations.  \*To know how physical sensations can alert us to unsafe situations. \*To understand the importance of checking with an adult before participating in an online environment.  \*To begin to be open with trusted adults about online experiences | \*Use technology safely and respectfully, keeping personal information private, identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies \*Recognise common uses of information technology beyond school |
| **Vocab**  Personal, information, trust, safe, online, trustworthy, untrustworthy, emotion, fear, panic, anxious, nervous, happy, excited, safe, safety | | | **Key Questions**  What is personal information?  *Name, addresses, phone number, photographs, hobbies, username, password etc.* Who would you share personal information with?  *Someone trustworthy*  When might you need a trusted adults help?  *E.g. when you’re lost, when you’re being bullied.*  What might you feel in an unsafe situation?  *E.g. nervous, shaking, hands/legs, heart beating faster, short of breath etc* | |
| **Cross Curricular Links: PHSE, Citizenship** | | |  | |
|  | | |  | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Unit: iBlog** |  |  |  |
| **Knowledge** | | | **Skills** | **National Curriculum** |
| \*I can use a username and password to access a blog.  \*I can write a sentence that build on things others have written.  \* I can post a comment on the class blog responding to a post or comment.  \*I can post to a blog expressing an opinion  \*I can justify my opinion  \*I can write a blog post about a topic they know.  \*Review posts they have previously written and choose examples of good blog posts. | | | \*To Know what a blog is and how it will be used in the classroom.  \*To log in to the class blog.  \* To respond to the writing of others.  \*To post on a blog.  \*To respond to someone else’s post on the class blog.  \*Explain what you think and why.  \*To use a blog to demonstrate and share learning.  \*To reflect on work and make improvements  \*Identify some ways they can keep themselves safe when using ICT. \*Use ICT to communicate, identify some of the risks and act to minimise them. | \*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 |
| **Vocab**  Blog, online, website, text, images, audio, video, webpage, hyperlink, login, username, password, post, response, comment, publish, communicating, evidence. | | | **Key Questions** |  |
| **Cross Curricular Links**  **English, Cross-curricular topics** | | |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Unit: iSearch** |  |  | |
| **Knowledge** | | | **Skills** | **National Curriculum** |
| \*I can find and move around a website. \*I can use the information on a website to answer a question.  \*I can order things using information found on line.  \*I can collect information from part of a website and present my findings.  \*I can create a page for a class book. | | | \*Understand that the world wide web contains large amounts of information.  \*To use links to navigate a website.  \*To know that the world wide web can be used to answer questions.  \*To navigate a website using hyperlinks.  \*To locate specific information using a website.  \*To collect information from a number of different online sources and check they are the same. | \* Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  \*Use technology safely and respectfully, keeping personal information private, identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies |
| **Vocab**  World Wide Web, Network, internet, hyperlink, search, URL, website, webpage, browsing, navigate, information, clue, solve, explore, scroll, research**.** | | | **Key Questions**  What is the World Wide Web?  *All of the web pages in the world connected to each other.*  How can you find things online?  *Knowing the address (URL) of a website or by searching.*  Can you point out a hyperlink on this web page?  *Words that are unlined* *or some images. The pointer can change to a hand when you hover over them.* How did you find this website or web page online?  What did you search for?  What is the address of this website?  *The search terms you entered in a search engine or by knowing the address. The URL in the address bar- sometimes starts with http or www* | |
| **Cross Curriculum Links**  Science, English | | |  | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Unit: iPublish** |  | |  | |
| **Knowledge** | | | | **Skills** | **National Curriculum** |
| \*I can make a mind map about the World  Wide Web  \*I can make a timeline of events in computing history.  \*I can design my own vision of futuristic technology.  \*I can create a presentation.  \*I can create a basic ebook.  \*I can refine ebooks to include multimedia. | | | | \*To understand the world wide web and how is has been developed throughout time.  \*To consider how technology changes with time.  \*To share knowledge through multi-media presentations \*To pla/produce a presentation of research findings.  \*To create an interactive eBook      \*choose a website based on how useful it is for a specific purpose.  \* demonstrate how they found specific information in a website.  \*Be discerning about the information collected from websites.  \*Select appropriate applications to help them achieve a specific task.  \*Can identify suitable information to present. | \*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. |
| **Vocab**  Website, world wide web, internet, link, connected, information, interact, past, present, future, similar, different, technology, input, devices, microchip, computer, memory, storage, mouse, keyboard, internet, email, eBook, multimedia, interact, audio, video, images, text, links, | | | | **Key Questions**  What is an eBook?  *An electronic book.*  What makes an eBook different to a book? *Can contain links, images, sound, video, etc* What are the advantages of eBooks?  *The user can interact with them (e.g. listen to audio, watch a video, click/tap a link)* What is he difference between the WWW and the Internet?  *WWW is linked web pages. The internet is a network of computers.*  Is all information on the World Wide Web reliable?  *No, anyone can create web content* | |
| **Cross Curricular Links** English, History | | | |  | |
|  | | | |  | |
|  | **Unit: iAnimate** | |  |  |  |
| **Knowledge** | | | | **Skills** | **National Curriculum** |
| * I can create a flipping book. * I can create a character description for fairy tale.   \*I can create a storyboard for a short stopframe animated sequence   * I can create a script to retell a short animated scene of a fairy tale.   \*I can create the backgrounds and characters for my animation.  \*I can use a storyboard and script to support the creation of a stop frame animation. | | | | \*Navigate a document using arrow keys and a mouse.  \*Use the backspace button and delete button to remove text.  \*Use tools to create simple presentations that communicate meaning. \*Make choices about applications and tools to use for a particular purpose.  \*Locate, edit and save different versions of their work.  \*Navigate around a website using hyperlinks and the back button.  \*Type web addresses into the web browser.  \*Create internet favourites    \*Understand what an animation is.  \*Understand the premise of a stop-frame animation.  \*Understand that animation consists of characters, a stage, props, sound, text and a story.   * Understand the importance of a storyboard in the story planning process.   \*Create own storyboard.  \*Understand that animation needs to be scripted.  \*Understand stop-frame animations involve physical characters, settings and props.  \*Work collaboratively in a group to achieve a common goal.   * Create a stop- frame animation | \* To use technology purposefully to create, organise, store, manipulate and retrieve digital content. |
| **Vocab**  Animation, scene, script, motion, storyboard, props, stop motion, image, movie, character, flip book, stage, background, sound, audio, text | | | | **Key Questions**  Who are your characters?  What is happening in this scene?  How do you make things seem to move?  What props are you using? |  |
| **Cross Curricular Links**  English, Art/Design, History, Mathematics, Science | | | |  |  |
|  | | | |  |  |
|  | | | |  |  |