Pudsey Bolton Royd Primary School Computing Long-Term Plan

Year 2

Autumn 1	*Autumn 2*	*Spring 1*
Enquiry Questions		
How can I record information effectively?	How can I use images effectively?	How can I make still image move?
Outcomes		
I can type ever increasing amounts - beyond simple log ins and sentences. I can combine picture and sound within a document independently. I can change the format of a document. I can change the font of my writing. I can change the size of my writing. I can use the right-mouse button to cut/copy and paste work around my document.	I can capture a still image. I can capture a moving image. I can upload images. I can resource images from the internet safely. I can add both types of image into a presentation. I can add a voice over to replace text in a presentation.	I can create am still image to animate I can make small, repeated changes to my still image I can upload these into an animation programme I can describe how pictures make an animation
Linked Texts		
N/A	N/A	N/A
Linked Experiences		
N/A	N/A	N/A
Overview		
Building on the skills from Year 1, children now type more quickly and efficiently. Children still add and edit their work, but add to this by exploring formatting. Purple Mash Unit 3.4 - typing. The whole does not need to be used, but can help create swift typers.	Building on skills from Year 1, children understand how computing can help present information. Children will resource graphics from real life and transfer them into a virtual setting. Children will also look at how words can be replaced by an audio track.	Building on skills from last half term, children now use their ability to capture images for a purpose. Children will record their still image. Children will make changes to their still image each time, recording each step, to create a simple motion. Children will upload these into a simple programme and be able to observe their sequence of images create a film. They will finally be able to vocalise what an animation is, based on this experience.
Knowledge and/or Skills Covered		
Manipulate digital content, e.g. changing the format or presentation. With support, create simple presentations. Manipulate a mouse without looking, and use the double-click function. Navigate a qwerty keyboard with more confidence, e.g. to log in to a system successfully or to write simple sentences.	Manipulate digital content, e.g. changing the format or presentation. With support, create simple presentations. Manipulate a mouse without looking, and use the double-click function. Navigate a qwerty keyboard with more confidence, e.g. to log in to a system successfully or to write simple sentences	Manipulate digital content, e.g. changing the format or presentation With support, create simple presentations
National Curriculum Attainment Targets		
Recognise common uses of information technology beyond school.	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	use logical reasoning to predict the behaviour of simple programs

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Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Recognise common uses of information technology beyond school Use technology safely and respectfully, keeping personal information private; identify where to go for support when they have concerns about content or contact on the internet or other online technologies.	use technology purposefully to create, organise, store, manipulate and retrieve digital content recognise common uses of information technology beyond school
Important Vocabulary		
Shift, control, caps-lock, password, return, enter, back-space, delete, open, close, select, zoom, highlight.	Network, device, application, tool, file, drive, disk, (sub)folder, save, save-as, internet search, video, audio, text, image, hardware, editing/presentation software, window, material.	similarity difference landscape portrait

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Spring 2	*Summer 1*	*Summer 2*
I Enquiry Questions		
How can computers help me explore questions?	How specific does an algorithm need to be?	How are algorithms used to create computer programmes?
Outcomes		
I can create a graph I can create a branching database I can use either of these resources to answer questions	I can explain what an algorithm is I can programme algorithms into physical devices I can predict what will happen if the algorithm is not accurate I can debug problems in my algorithm	
Linked Texts		
N/A	N/A	N/A
Linked Experiences		
N/A	N/A	N/A
Overview		
Children will be introduced to graphs and databases - for former of which will link to their maths work.Children will look at data input to create databases and graphs which are based on this data. Children will then look to ask and answer simple questions which can be answered through these resources. Children's use of a keyboard and mouse should improve through this unit of work as they practice using them. Purple Mash Unit 2.4	Children will be introduced to devices they can enter a sequence of instructions into and they can observe the outcomes. They will attempt to achieve specific tasks using these devices - moving onto predicting what will happen before testing and debugging mistakes. A key part of this unit is the understanding of key vocabulary - algorithm, predict, debug and physical device. Children need to be confident using this language in their computing conversations. This unit may be shorter and give the opportunity to move onto the final unit quicker. There is no pressure for this to be the case. Resource: Beebots	Children will move on algorithms in a virtual environment. Children will create simple algorithms which they have the opportunity to debug as mistakes arise. Purple Mash will introduce block coding in sections and allow give the blocks necessary, so children can be guided in their learning - knowing all the blocks need to be used and not overwhelmed. By the end of the unit children must move on to using Scratch. This can be as simple as create a straight forward movement to the default character, but should focus on seeing block coding in a more popular programme which they will use long term in their education. Children can look at altering the background and sprite, and should be given this language, but only after simple code can be created and debugged as necessary. Purple Mash Unit 2.1 Children MUST have at least 1 session exploring Purple Mash by the end to see block coding in a different (and long term more popular) programme. Check the Year 3 resource PDF if more complicated ideas for Scratch are required.
Knowledge and/or Skills Covered		

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select some information Start to make selections when presented with multiple choices Manipulate a mouse without looking, and use the double-click function. Navigate a qwerty keyboard with more confidence, e.g. to log in to a system successfully or to write simple sentences	Identify and describe bugs in a simple program, and start to suggest corrections. Verbalise what will happen in a simple program before activating.	Create a simple program Identify and describe bugs in a simple program, and start to suggest corrections.
National Curriculum Attainment Targets		
use technology purposefully to create, organise, store, manipulate and retrieve digital content recognise common uses of information technology beyond school	understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions create and debug simple programs use logical reasoning to predict the behaviour of simple programs	understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions create and debug simple programs use logical reasoning to predict the behaviour of simple programs
Important Vocabulary		
shift control caps-lock password return enter back-space delete open close select zoom highlight	Clockwise Anti-clockwise underneath sprite (de)bug data information object model process horizontal vertical diagonal (i.e. sloped) symmetrical reflect left right	Clockwise Anti-clockwise underneath sprite (de)bug data information object model process horizontal vertical diagonal (i.e. sloped) symmetrical reflect left right