



Computing Skills and knowledge

Expected by the End of Year 4

Computer Systems and Networks	Creating Media
<p><u>The Internet</u></p> <p>describe networked devices and how they connect explain that the internet is used to provide many services recognise that the World Wide Web contains websites and web pages" know how to access websites on the WWW describe where websites are stored when uploaded to the WWW explain the types of media that can be shared on the WWW" explain that internet services can be used to create content online explain what media can be found on websites recognise that "add content to the WWW" explain that there are rules to protect content explain that websites and their content are created by people suggest who owns the content on websites " explain that not everything on the World Wide Web is true explain why I need to think carefully before I share or reshare content explain why some information I find online may not be honest, accurate, or legal</p>	<p><u>Audio Editing -</u></p> <p>identify digital devices that can record sound and play it back identify the inputs and outputs required to play audio or record sound recognise the range of sounds that can be recorded discuss what other people include when recording sound for a podcast suggest how to improve my recording use a device to record audio and play back sound" discuss why it is useful to be able to save digital recordings plan and write the content for a podcast save a digital recording as a file discuss ways in which audio recordings can be altered edit sections of of an audio recording open a digital recording from a file choose suitable sounds to include in a podcast discuss sounds that other people combine use editing tools to arrange sections of audio discuss the features of a digital recording I like know that digital recordings need to be exported to share them suggest improvements to a digital recording</p> <p><u>Photo Editing –</u></p> <p>explain the effect that editing can have on an image explore how images can be changed in real life identify changes that we can make to an image change the composition of an image by selecting parts of it consider why someone might want to change the composition of an image explain what has changed in an edited image" choose effects to make my image fit a scenario explain why my choices fit a scenario talk about changes made to images choose appropriate tools to retouch an image give examples of positive and negative effects that retouching can have on an image identify how an image has been retouched combine parts of images to create new images sort images into 'fake' or 'real' and explain my choices talk about fake images around me compare the original image with my completed publication consider the effect of adding other elements to my work evaluate the impact of my publication on others through feedback</p>



Programming A and B	Data and Information
<p><u>Repetition in Games</u></p> <p>create a code snippet for a given purpose explain the effect of changing a value of a command program a computer by typing commands" test my algorithm in a text-based language use a template to create a design for my program write an algorithm to produce a given outcome" identify everyday tasks that include repetition as part of a sequence, eg brushing teeth, dance moves identify patterns in a sequence use a count-controlled loop to produce a given outcome" choose which values to change in a loop identify the effect of changing the number of times a task is repeated predict the outcome of a program containing a count-controlled loop" explain that a computer can repeatedly call a procedure identify 'chunks' of actions in the real world use a procedure in a program" design a program that includes count-controlled loops develop my program by debugging it make use of my design to write a program"</p> <p><u>Repetition in Shapes</u></p> <p>list an everyday task as a set of instructions including repetition modify a snippet of code to create a given outcome predict the outcome of a snippet of code" choose when to use a count-controlled and an infinite loop modify loops to produce a given outcome recognise that some programming languages enable more than one process to be run at once" choose which action will be repeated for each object evaluate the effectiveness of the repeated sequences used in my program explain what the outcome of the repeated action should be" explain the effect of my changes identify which parts of a loop can be changed re-use existing code snippets on new sprites" develop my own design explaining what my project will do evaluate the use of repetition in a project select key parts of a given project to use in my own design" build a program that follows my design evaluate the steps I followed when building my project refine the algorithm in my design"</p>	<p><u>Data Logging –</u></p> <p>choose a data set to answer a given question identify data that can be gathered over time suggest questions that can be answered using a given data set" explain that sensors are input devices identify that data from sensors can be recorded use data from a sensor to answer a given question" identify a suitable place to collect data identify the intervals used to collect data talk about the data that I have captured" import a data set use a computer program to sort data use a computer to view data in different ways" plan how to collect data using a data logger propose a question that can be answered using logged data use a data logger to collect data" draw conclusions from the data that I have collected explain the benefits of using a data logger interpret data that has been collected using a data logger"</p>