



## Year 4 Computing Curriculum Map

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Computing Systems and Networks – The Internet</b>	<b>Creating Media – Audio production</b>	<b>Programming A – repetition in shapes</b>	<b>Data information – data and logging</b>	<b>Creating Media – photo editing</b>	<b>Programming B – repetition in games</b>
<p><b>Lesson 1: To describe how networks physically connect to other networks.</b></p> <ul style="list-style-type: none"> <li>I can describe the internet as a network of networks</li> <li>I can demonstrate how information is shared across the internet</li> <li>I can discuss why a network needs protecting</li> </ul>	<p><b>Lesson 1: To identify that sound can be recorded.</b></p> <p>-I can explain that the person who records the sound can say who is allowed to use it</p> <p>- I can identify the input and output devices used to record and play sound</p> <p>- I can use a computer to record audio</p>	<p><b>Lesson 1: To identify that accuracy in programming is important.</b></p> <p>-I can create a code snippet for a given purpose</p> <p>- I can explain the effect of changing a value of a command</p> <p>- I can program a computer by typing commands</p>	<p><b>Lesson 1: To explain that data gathered over time can be used to answer questions.</b></p> <p>-I can choose a data set to answer a given question</p> <p>- I can identify data that can be gathered over time</p> <p>- I can suggest questions that can be answered using a given data set</p>	<p><b>Lesson 1: to explain that the composition of digital images can be exchanged.</b></p> <p>-I can explain why I might crop an image</p> <p>- I can improve an image by rotating it</p> <p>- I can use photo editing software to crop an image</p>	<p><b>Lesson 1: To develop the use of count-controlled loops in a different programming environment.</b></p> <p>-I can list an everyday task as a set of instructions including repetition</p> <p>- I can modify a snippet of code to create a given outcome</p> <p>- I can predict the outcome of a snippet of code</p>
<p><b>Lesson 2: To recognise how networked devices make up the internet.</b></p> <ul style="list-style-type: none"> <li>I can describe networked devices and how they connect</li> <li>I can explain that the internet is used to provide many services</li> <li>I can recognise that the World Wide Web</li> </ul>	<p><b>Lesson 2: -To explain that audio recordings can be edited</b></p> <p>-I can discuss what sounds can be added to a podcast</p> <p>- I can inspect the soundwave view to know where to trim my recording</p> <p>- I can re-record my voice to improve my recording</p>	<p><b>Lesson 2: -To create a program in a text-based language</b></p> <p>-I can test my algorithm in a text-based language</p> <p>- I can use a template to create a design for my program</p> <p>- I can write an algorithm to produce a given outcome</p>	<p><b>Lesson 2: To use a digital device to collect data automatically.</b></p> <p>-I can explain what data can be collected using sensors</p> <p>- I can identify that data from sensors can be recorded</p> <p>- I can use data from a sensor to answer a given question</p>	<p><b>Lesson 2: to explain that colours can be changed in digital images.</b></p> <p>-I can experiment with different colour effects</p> <p>- I can explain that different colour effects make you think and feel different things</p> <p>- I can explain why I chose certain colour effects</p>	<p><b>Lesson 2: To explain that in programming there are infinite loops and count controlled loops.</b></p> <p>-I can choose when to use a count-controlled and an infinite loop</p> <p>- I can modify loops to produce a given outcome</p> <p>- I can recognise that some programming languages enable more</p>

contains websites and web pages					than one process to be run at once
<p><b>Lesson 3: To outline how websites can be shared via the World Wide Web (WWW).</b></p> <ul style="list-style-type: none"> <li>I can describe where websites are stored when uploaded to the WWW</li> <li>I can describe how to access websites on the WWW</li> <li>I can explain the types of media that can be shared on the WWW</li> </ul>	<p><b>Lesson 3: -To recognise the different parts of creating a podcast project.</b></p> <ul style="list-style-type: none"> <li>-I can explain how sounds can be combined to make a podcast more engaging</li> <li>- I can plan appropriate content for a podcast</li> <li>- I can save my project so the different parts remain editable</li> </ul>	<p><b>Lesson 3: To explain what 'repeat' means.</b></p> <ul style="list-style-type: none"> <li>-I can identify everyday tasks that include repetition as part of a sequence, eg brushing teeth, dance moves</li> <li>- I can identify patterns in a sequence</li> <li>- I can use a count-controlled loop to produce a given outcome</li> </ul>	<p><b>Lesson 3: To explain that data logger collects 'data points' from sensors over time.</b></p> <ul style="list-style-type: none"> <li>-I can identify the intervals used to collect data</li> <li>- I can recognise that a data logger collects data at given points</li> <li>- I can talk about the data that I have captured</li> </ul>	<p><b>Lesson 3: To explain how cloning can be used in photo editing.</b></p> <ul style="list-style-type: none"> <li>-I can add to the composition of an image by cloning</li> <li>- I can identify how a photo edit can be improved</li> <li>- I can remove parts of an image using cloning</li> </ul>	<p><b>Lesson 3: To develop a design that includes two or more loops which run at the same time.</b></p> <ul style="list-style-type: none"> <li>-I can choose which action will be repeated for each object</li> <li>- I can evaluate the effectiveness of the repeated sequences used in my program</li> <li>- I can explain what the outcome of the repeated action should be</li> </ul>
<p><b>Lesson 4: To describe how content can be added and accessed on the World Wide Web (WWW).</b></p> <ul style="list-style-type: none"> <li>I can explain what media can be found on websites</li> <li>I can recognise that I can add content to the WWW</li> <li>I can explain that internet services can be used to create content online</li> </ul>	<p><b>Lesson 4: To apply audio editing skills independently.</b></p> <ul style="list-style-type: none"> <li>-I can improve my voice recordings</li> <li>- I can record content following my plan</li> <li>- I can review the quality of my recordings</li> </ul>	<p><b>Lesson 4: -To modify a count-controlled loop to produce a given outcome.</b></p> <ul style="list-style-type: none"> <li>-I can choose which values to change in a loop</li> <li>- I can identify the effect of changing the number of times a task is repeated</li> <li>- I can predict the outcome of a program containing a count-controlled loop</li> </ul>	<p><b>Lesson 4: To recognise how a computer can help us analyse data.</b></p> <ul style="list-style-type: none"> <li>-I can explain that there are different ways to view data</li> <li>- I can sort data to find information</li> <li>- I can view data at different levels of detail</li> </ul>	<p><b>Lesson 4: To explain that images can be combined.</b></p> <ul style="list-style-type: none"> <li>-I can experiment with tools to select and copy part of an image</li> <li>- I can explain why photos might be edited</li> <li>- I can use a range of tools to copy between images</li> </ul>	<p><b>Lesson 4: To modify infinite loop in a given program.</b></p> <ul style="list-style-type: none"> <li>-I can explain the effect of my changes</li> <li>- I can identify which parts of a loop can be changed</li> <li>- I can re-use existing code snippets on new sprites</li> </ul>

<p><b>Lesson 5: To recognise how the content of the WWW is created by people</b></p> <ul style="list-style-type: none"> <li>• I can explain that websites and their content are created by people</li> <li>• I can suggest who owns the content on websites</li> <li>• I can explain that there are rules to protect content</li> </ul>	<p><b>Lesson 5: -To combine audio to enhance my podcast project.</b></p> <ul style="list-style-type: none"> <li>-I can arrange multiple sounds to create the effect I want</li> <li>- I can explain the difference between saving a project and exporting an audio file</li> <li>- I can open my project to continue working on it</li> </ul>	<p><b>Lesson 5: To decompose a task into small steps.</b></p> <ul style="list-style-type: none"> <li>-I can explain that a computer can repeatedly call a procedure</li> <li>- I can identify 'chunks' of actions in the real world</li> <li>- I can use a procedure in a program</li> </ul>	<p><b>Lesson 5: To identify the data needed to answer questions.</b></p> <ul style="list-style-type: none"> <li>-I can plan how to collect data using a data logger</li> <li>- I can propose a question that can be answered using logged data</li> <li>- I can use a data logger to collect data</li> </ul>	<p><b>Lesson 5: to combine images for a purpose.</b></p> <ul style="list-style-type: none"> <li>-I can choose suitable images for my project</li> <li>- I can create a project that is a combination of other images</li> <li>- I can describe the image I want to create</li> </ul>	<p><b>Lesson 5: To design a project that includes repetition.</b></p> <ul style="list-style-type: none"> <li>-I can develop my own design explaining what my project will do</li> <li>- I can evaluate the use of repetition in a project</li> <li>- I can select key parts of a given project to use in my own design</li> </ul>
<p><b>Lesson 6: To evaluate the consequences of unreliable content</b></p> <ul style="list-style-type: none"> <li>• I can explain that not everything on the World Wide Web is true</li> <li>• I can explain why some information I find online may not be honest, accurate, or legal</li> <li>• I can explain why I need to think carefully before I share or reshare content</li> </ul>	<p><b>Lesson 6: To evaluate the effective use of audio</b></p> <ul style="list-style-type: none"> <li>-I can choose appropriate edits to improve my podcast</li> <li>- I can listen to an audio recording to identify its strengths</li> <li>- I can suggest improvements to an audio recording</li> </ul>	<p><b>Lesson 6: To create a program that uses count-controlled loops to produce a given outcome</b></p> <ul style="list-style-type: none"> <li>-I can design a program that includes count-controlled loops</li> <li>- I can develop my program by debugging it</li> <li>- I can make use of my design to write a program</li> </ul>	<p><b>Lesson 6: To use data from sensors to answer questions.</b></p> <ul style="list-style-type: none"> <li>-I can draw conclusions from the data that I have collected</li> <li>- I can explain the benefits of using a data logger</li> <li>- I can interpret data that has been collected using a data logger</li> </ul>	<p><b>Lesson 6: To evaluate how changes can improve an image.</b></p> <ul style="list-style-type: none"> <li>-I can combine text and my image to complete the project</li> <li>- I can review images against a given criteria</li> <li>- I can use feedback to guide making changes</li> </ul>	<p><b>Lesson 6: To create a project that includes repetition.</b></p> <ul style="list-style-type: none"> <li>-I can build a program that follows my design</li> <li>- I can evaluate the steps I followed when building my project</li> <li>- I can refine the algorithm in my design</li> </ul>