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| **Year 4 Overview** | | | | |
| **Unit Name** | **Lesson** | **Learning Objectives** | **Success Criteria** | **Cross Curricular Links** |
| **Autumn 1** | | | | |
| Computing systems and networks – The Internet | 1 | Can I describe how networks physically connect to other networks? | -I can demonstrate how information is shared across the internet - I can describe the internet as a network of networks - I can discuss why a network needs protecting |  |
| Computing systems and networks – The Internet | 2 | Can I recognise how networked devices make up the internet? | -I can describe networked devices and how they connect - I can explain that the internet is used to provide many services - I can recognise that the World Wide Web contains websites and web pages |  |
| Computing systems and networks – The Internet | 3 | Can I outline how websites can be shared via the World Wide Web (WWW)? | -I can describe how to access websites on the WWW - I can describe where websites are stored when uploaded to the WWW - I can explain the types of media that can be shared on the WWW |  |
| Computing systems and networks – The Internet | 4 | Can I describe how content can be added and accessed on the World Wide Web (WWW)? | -I can explain that internet services can be used to create content online - I can explain what media can be found on websites - I can recognise that I can add content to the WWW |  |
| Computing systems and networks – The Internet | 5 | Can I recognise how the content of the WWW is created by people? | -I can explain that there are rules to protect content - I can explain that websites and their content are created by people  - I can suggest who owns the content on websites |  |
| Computing systems and networks – The Internet | 6 | Can I evaluate the consequences of unreliable content? | -I can explain that not everything on the World Wide Web is true - I can explain why I need to think carefully before I share or reshare content - I can explain why some information I find online may not be honest, accurate, or legal |  |
| **Autumn 2** | | | | |
| Creating media - Audio production | 1 | Can I identify that sound can be recorded? | -I can explain that the person who records the sound can say who is allowed to use it - I can identify the input and output devices used to record and play sound - I can use a computer to record audio |  |
| Creating media - Audio production | 2 | Can I explain that audio recordings can be edited? | -I can discuss what sounds can be added to a podcast  - I can inspect the soundwave view to know where to trim my recording - I can re-record my voice to improve my recording |  |
| Creating media - Audio production | 3 | Can I recognise the different parts of creating a podcast project? | -I can explain how sounds can be combined to make a podcast more engaging - I can plan appropriate content for a podcast - I can save my project so the different parts remain editable |  |
| Creating media - Audio production | 4 | Can I apply audio editing skills independently? | -I can improve my voice recordings - I can record content following my plan - I can review the quality of my recordings |  |
| Creating media - Audio production | 5 | Can I combine audio to enhance my podcast project? | -I can arrange multiple sounds to create the effect I want - I can explain the difference between saving a project and exporting an audio file - I can open my project to continue working on it |  |
| Creating media - Audio production | 6 | Can I evaluate the effective use of audio? | -I can choose appropriate edits to improve my podcast - I can listen to an audio recording to identify its strengths - I can suggest improvements to an audio recording |  |
| **Spring 1** | | | | |
| Programming A – Repetition in shapes | 1 | Can I identify that accuracy in programming is important? | -I can create a code snippet for a given purpose - I can explain the effect of changing a value of a command - I can program a computer by typing commands |  |
| Programming A – Repetition in shapes | 2 | Can I create a program in a text-based language? | -I can test my algorithm in a text-based language - I can use a template to create a design for my program - I can write an algorithm to produce a given outcome |  |
| Programming A – Repetition in shapes | 3 | Can I explain what ‘repeat’ means? | -I can identify everyday tasks that include repetition as part of a sequence, eg brushing teeth, dance moves - I can identify patterns in a sequence - I can use a count-controlled loop to produce a given outcome |  |
| Programming A – Repetition in shapes | 4 | Can I modify a count-controlled loop to produce a given outcome? | -I can choose which values to change in a loop - I can identify the effect of changing the number of times a task is repeated - I can predict the outcome of a program containing a count-controlled loop |  |
| Programming A – Repetition in shapes | 5 | Can I decompose a task into small steps? | -I can explain that a computer can repeatedly call a procedure - I can identify ‘chunks’ of actions in the real world - I can use a procedure in a program |  |
| Programming A – Repetition in shapes | 6 | Can I create a program that uses count-controlled loops to produce a given outcome? | -I can design a program that includes count-controlled loops - I can develop my program by debugging it - I can make use of my design to write a program |  |
| **Spring 2** | | | | |
| Data and information – Data logging | 1 | Can I explain that data gathered over time can be used to answer questions? | -I can choose a data set to answer a given question - I can identify data that can be gathered over time - I can suggest questions that can be answered using a given data set |  |
| Data and information – Data logging | 2 | Can I use a digital device to collect data automatically? | -I can explain what data can be collected using sensors - I can identify that data from sensors can be recorded - I can use data from a sensor to answer a given question |  |
| Data and information – Data logging | 3 | Can I explain that a data logger collects ‘data points’ from sensors over time? | -I can identify the intervals used to collect data - I can recognise that a data logger collects data at given points - I can talk about the data that I have captured |  |
| Data and information – Data logging | 4 | Can I recognise how a computer can help us analyse data? | -I can explain that there are different ways to view data - I can sort data to find information - I can view data at different levels of detail |  |
| Data and information – Data logging | 5 | Can I identify the data needed to answer questions? | -I can plan how to collect data using a data logger - I can propose a question that can be answered using logged data - I can use a data logger to collect data |  |
| Data and information – Data logging | 6 | Can I use data from sensors to answer questions? | -I can draw conclusions from the data that I have collected - I can explain the benefits of using a data logger - I can interpret data that has been collected using a data logger |  |
| **Summer 1** | | | | |
| Creating media – Photo editing | 1 | Can I explain that the composition of digital images can be changed? | -I can explain why I might crop an image - I can improve an image by rotating it - I can use photo editing software to crop an image |  |
| Creating media – Photo editing | 2 | Can I explain that colours can be changed in digital images? | -I can experiment with different colour effects - I can explain that different colour effects make you think and feel different things - I can explain why I chose certain colour effects |  |
| Creating media – Photo editing | 3 | Can I explain how cloning can be used in photo editing? | -I can add to the composition of an image by cloning - I can identify how a photo edit can be improved - I can remove parts of an image using cloning |  |
| Creating media – Photo editing | 4 | Can I explain that images can be combined? | -I can experiment with tools to select and copy part of an image - I can explain why photos might be edited - I can use a range of tools to copy between images |  |
| Creating media – Photo editing | 5 | Can I combine images for a purpose? | -I can choose suitable images for my project - I can create a project that is a combination of other images - I can describe the image I want to create |  |
| Creating media – Photo editing | 6 | Can I evaluate how changes can improve an image? | -I can combine text and my image to complete the project - I can review images against a given criteria - I can use feedback to guide making changes |  |
| **Summer 2** | | | | |
| Programming B – Repetition in games | 1 | Can I develop the use of count-controlled loops in a different programming environment? | -I can list an everyday task as a set of instructions including repetition - I can modify a snippet of code to create a given outcome - I can predict the outcome of a snippet of code |  |
| Programming B – Repetition in games | 2 | Can I explain that in programming there are infinite loops and count controlled loops? | -I can choose when to use a count-controlled and an infinite loop - I can modify loops to produce a given outcome - I can recognise that some programming languages enable more than one process to be run at once |  |
| Programming B – Repetition in games | 3 | Can I develop a design that includes two or more loops which run at the same time? | -I can choose which action will be repeated for each object - I can evaluate the effectiveness of the repeated sequences used in my program - I can explain what the outcome of the repeated action should be |  |
| Programming B – Repetition in games | 4 | Can I modify an infinite loop in a given program? | -I can explain the effect of my changes - I can identify which parts of a loop can be changed - I can re-use existing code snippets on new sprites |  |
| Programming B – Repetition in games | 5 | Can I design a project that includes repetition? | -I can develop my own design explaining what my project will do - I can evaluate the use of repetition in a project - I can select key parts of a given project to use in my own design |  |
| Programming B – Repetition in games | 6 | Can I create a project that includes repetition? | -I can build a program that follows my design - I can evaluate the steps I followed when building my project - I can refine the algorithm in my design |  |