| | | | |
|---|---|---|---|
| 4 | | –To develop my program by adding features | –I can build more sequences of commands to make my design work<br>- I can choose suitable keys to turn on additional features –<br>I can identify additional features (from a given set of blocks) |
| 5 | | –To identify and fix bugs in a program | –I can match a piece of code to an outcome<br>- I can modify a program using a design<br>- I can test a program against a given design |
| 6 | | –To design and create a maze–based challenge | –I can evaluate my project<br>- I can implement my design<br>- I can make design choices and justify them |

# Year FOUR

## Computing systems and networks – The Internet

| Lesson | Title | Learning Intention | Success Criteria |
|---|---|---|---|
| 1 | Computing systems and networks – The Internet | –To describe how networks physically connect to other networks | –I can demonstrate how information is shared across the internet<br>- I can describe the internet as a network of networks<br>- I can discuss why a network needs protecting |
| 2 | | –To recognise how networked devices make up the internet | –I can describe networked devices and how they connect –<br>I can explain that the internet is used to provide many services<br>- I can recognise that the World Wide Web contains websites and web pages |
| 3 | | –To outline how websites can be shared via the World Wide Web (WWW) | –I can describe how to access websites on the WWW<br>- I can describe where websites are stored when uploaded to the WWW<br>- I can explain the types of media that can be shared on the WWW |
| 4 | | –To 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<br>- I can explain what media can be found on websites<br>- I can recognise that I can add content to the WWW |
| 5 | | –To recognise how the content of the WWW is created by people | –I can explain that there are rules to protect content<br>- I can explain that websites and their content are created by people<br>- I can suggest who owns the content on websites |
| 6 | | –To evaluate the consequences of unreliable content | –I can explain that not everything on the World Wide Web is true<br>- I can explain why I need to think carefully before I share or reshare content<br>- I can explain why some information I find online may not be honest, accurate, or legal |

## Creating media – Audio production

| Lesson | Title | Learning Intention | Success Criteria |
|---|---|---|---|
| | | | |

| 1 | Creating media – Audio production | –To identify that sound can be recorded | –I can explain that the person who records the sound can say who is allowed to use it<br>- I can identify the input and output devices used to record and play sound<br>- I can use a computer to record audio |
|---|---|---|---|
| 2 | | –To 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<br>- I can re-record my voice to improve my recording |
| 3 | | –To recognise the different parts of creating a podcast project | –I can explain how sounds can be combined to make a podcast more engaging<br>- I can plan appropriate content for a podcast<br>- I can save my project so the different parts remain editable |
| 4 | | –To apply audio editing skills independently | –I can improve my voice recordings<br>- I can record content following my plan<br>- I can review the quality of my recordings |
| 5 | | –To 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<br>- I can open my project to continue working on it |
| 6 | | –To evaluate the effective use of audio | –I can choose appropriate edits to improve my podcast<br>- I can listen to an audio recording to identify its strengths<br>- I can suggest improvements to an audio recording |

## Programming A – Repetition in shapes

| Lesson | Title | Learning Intention | Success Criteria |
|---|---|---|---|
| 1 | Programming A – Repetition in shapes | –To 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<br>- I can program a computer by typing commands |
| 2 | | –To create a program in a text-based language | –I can test my algorithm in a text-based language<br>- I can use a template to create a design for my program<br>- I can write an algorithm to produce a given outcome |
| 3 | | –To explain what 'repeat' means | –I can identify everyday tasks that include repetition as part of a sequence, eg brushing teeth, dance moves<br>- I can identify patterns in a sequence<br>- I can use a count-controlled loop to produce a given outcome |
| 4 | | –To 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<br>- I can predict the outcome of a program containing a count-controlled loop |
| 5 | | –To decompose a task into small steps | –I can explain that a computer can repeatedly call a procedure<br>- I can identify 'chunks' of actions in the real world<br>- I can use a procedure in a program |
| 6 | | –To create a program that uses count controlled loops to produce a given outcome | –I can design a program that includes count-controlled loops<br>- I can develop my program by debugging it<br>- I can make use of my design to write a program |

## Data and information – Data logging

| Lesson | Title | Learning Intention | Success Criteria |
|---|---|---|---|
| 1 | Data and information – Data Logging | –To explain that data gathered over time can be used to answer questions | –I can choose a data set to answer a given question<br>- I can identify data that can be gathered over time<br>- I can suggest questions that can be answered using a given data set |
| 2 | | –To use a digital device to collect data automatically | –I can explain what data can be collected using sensors<br>- I can identify that data from sensors can be recorded<br>- I can use data from a sensor to answer a given question |
| 3 | | –To explain that a data logger collects 'data points' from sensors over time | –I can identify the intervals used to collect data<br>- I can recognise that a data logger collects data at given points<br>- I can talk about the data that I have captured |
| 4 | | –To recognise how a computer can help us analyse data | –I can explain that there are different ways to view data<br>- I can sort data to find information<br>- I can view data at different levels of detail |
| 5 | | –To identify the data needed to answer questions | –I can plan how to collect data using a data logger<br>- I can propose a question that can be answered using logged data<br>- I can use a data logger to collect data |
| 6 | | –To use data from sensors to answer questions | –I can draw conclusions from the data that I have collected<br>- I can explain the benefits of using a data logger<br>- I can interpret data that has been collected using a data logger |

## Creating media – Photo editing

| Lesson | Title | Learning Intention | Success Criteria |
|---|---|---|---|
| 1 | Creating media – Photo editing | –To explain that the composition of digital images can be changed | –I can explain why I might crop an image<br>- I can improve an image by rotating it<br>- I can use photo editing software to crop an image |
| 2 | | –To explain that colours can be changed in digital images | –I can experiment with different colour effects<br>- I can explain that different colour effects make you think and feel different things<br>- I can explain why I chose certain colour effects |
| 3 | | –To explain how cloning can be used in photo editing | –I can add to the composition of an image by cloning<br>- I can identify how a photo edit can be improved<br>- I can remove parts of an image using cloning |
| 4 | | –To explain that images can be combined | –I can experiment with tools to select and copy part of an image<br>- I can explain why photos might be edited<br>- I can use a range of tools to copy between images |
| 5 | | –To combine images for a purpose | –I can choose suitable images for my project<br>- I can create a project that is a combination of other images<br>- I can describe the image I want to create |
| 6 | | –To evaluate how changes can improve an image | –I can combine text and my image to complete the project<br>- I can review images against a given criteria<br>- I can use feedback to guide making changes |

## Programming B – Repetition in games

| Lesson | Title | Learning Intention | Success Criteria |
|---|---|---|---|
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|---|---|---|---|
| 1 | Programming B – Repetition in games | –To 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<br>- I can modify a snippet of code to create a given outcome<br>- I can predict the outcome of a snippet of code |
| 2 | | –To 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<br>-        I can modify loops to produce a given outcome<br>-        I can recognise that some programming languages enable more than one process to be run at once |
| 3 | | –To 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<br>- I can explain what the outcome of the repeated action should be |
| 4 | | –To modify an infinite loop in a given program | –I can explain the effect of my changes<br>- I can identify which parts of a loop can be changed<br>- I can re-use existing code snippets on new sprites |
| 5 | | –To design a project that includes repetition | –I can develop my own design explaining what my project will do<br>-        I can evaluate the use of repetition in a project<br>-        I can select key parts of a given project to use in my own design |
| 6 | | –To create a project that includes repetition | –I can build a program that follows my design<br>-        I can evaluate the steps I followed when building my project<br>-        I can refine the algorithm in my design |

## Year FIVE

### Computing systems and networks – Systems and searching

| Lesson | Title | Learning Intention | Success Criteria |
|---|---|---|---|
| 1 | Computing systems and networks – Systems and searching | –To explain that computers can be connected together to form systems | –I can describe that a computer system features inputs, processes, and outputs<br>-        I can explain that computer systems communicate with other devices<br>-        I can explain that systems are built using a number of parts |
| 2 | | –To recognise the role of computer systems in our lives | –I can explain the benefits of a given computer system<br>- I can identify tasks that are managed by computer systems<br>- I can identify the human elements of a computer system |
| 3 | | –To experiment with search engines | –I can compare results from different search engines<br>- I can make use of a web search to find specific information – I can refine my web search |
| 4 | | –To describe how search engines select results | –I can explain why we need tools to find things online – I can recognise the role of web crawlers in creating an index<br>- I can relate a search term to the search engine's index |