Computing Skill Progression

Year 5
Computer Systems and Networks – Sharing Information
Explain that systems are built using a number of parts.
Describe that a computer system features inputs, processes, and outputs.
Explain that computer systems communicate with other devices.
Identify tasks that are managed by computer systems.
Identify the human elements of a computer system.
Recognise that data is transferred using agreed methods.
Explain that networked digital devices have unique addresses.
Recognise that connected digital devices can allow us to access shared files stored online.
Compare working online with working offline.
Creating Media – Vector Drawing
Recognise that vector drawings are made using shapes.
Discuss how a vector drawing is different from paper-based drawings.
Identify the shapes used to make a vector drawing.
Move, resize, and rotate objects I have duplicated.
Modify objects to create different effects.
Identify that each added object creates a new layer in the drawing.
Copy part of a drawing by duplicating several objects.
Suggest improvements to a vector drawing.
Creating Media – Video Editing
Explain that a video can include both visual and audio media.
Plan a video project using a storyboard.
Choose the most suitable digital device for recording my project.
Demonstrate suitable methods of using a digital device to capture my video.
Record a video that demonstrates some of the features of an effective video.
Explain why lighting and angle are important in creating an effective video.
Store, retrieve, and export my recording to a computer.
Explain how to improve a video by reshooting and editing.
Make edits to my video and improve the final outcome.
Data and information – Flat-file Databases
Create multiple questions about the same field.
Order, sort, and group my data cards.
Navigate a flat-file database to compare different views of information.
Explain how information can be grouped.
Choose which field and value are required to answer a given question.
Choose multiple criteria to answer a given question.
Select an appropriate chart to visually compare data.
Explain the benefits of using a computer to create graphs.
Present my findings to a group.
Programming A – Selection in Physical Computing
Build a simple circuit to connect a microcontroller to a computer.
Program a microcontroller to light an led.
Connect more than one output device to a microcontroller.
Design sequences for given output devices.
Program a microcontroller to respond to an input.
Explain a condition being met can start an action.
Use selection (an if... then... statement) to direct the flow of a program.
Use selection to produce an intended outcome.
Test and debug my project.
Programming B – Selection in Quizzes
Recall how conditions are used in selection.
Identify conditions in a program.
Use selection in an infinite loop to check a condition.

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Identify the condition and outcomes in an if..then... else statement.
Explain that program flow can branch according to a condition.
Design the flow of a program which contains if... then... else...
Identify the outcome of user input in an algorithm.
Identify what setup code my project needs.