As a Year 5 Computer Scientist I will know…

Computing systems and networks - sharing information to recognise that a system is a set of interconnected parts which work together explain that computers can be connected to form IT systems identify that data can be transferred between IT systems recognise inputs, processes and outputs explain the role of search engines and web crawlers explain how search results are ranked and selected explain how search engines make money through advertising identify some of the limitations of search engines	**Creating media - vector drawing** identify that a vector drawing comprises separate objects recognise that each object in a drawing is in its own layer recognise that vector images can be scaled without impact on quality recognise that objects can be modified in groups explain how alignment and size guides can help create a more consistent drawing. to consider the impact of choices made	**Creating media - video editing** explain the features of video as a visual media format recognise which devices can and can't record video explain purpose of a storyboard recognise filming techniques can be used to create different effects recognise the need to review and reflect on a project recognise the limitations of editing identify videos can be edited and improved through reshooting and editing recognise projects need to be exported to be shared
Data and information - Flat file databases explain that a computer program can be used to organise data. explain that tools can be used to select data and answer questions. ordering data allows us to answer some questions operands can be used to filter data outline how 'AND' and 'OR' can be used to refine data selection explain that computer programs can be used to compare data visually explain that we present information to communicate a message	**Programming A - Selection in physical computing** A condition can only be true or false A count controlled loop contains a condition Compare a count controlled loop with a condition controlled loop Explain that a condition controlled loop will stop when a condition is met Explain that when a condition is met, a loop will complete a cycle before it stops	**Project Evolve** self image and identity online relationships online reputation online bullying managing online information health, wellbeing and lifestyle privacy and security copyright and ownership

As a Year 5 Computer Scientist I can…

- Describe the input and output of a search engine
- Demonstrate that different search terms produce different results
- Evaluate the results of search terms

Creating media - video production

- Use different camera angles
- Use pan, tilt & zoom
- Identify features of a video recording device or application
- Combine filming techniques for a given purpose
- Determine what scenes will convey your idea
- Choose to reshoot a scene or improve later through editing
- Use split, trim and crop to edit a video

Creating media - vector graphics

- Add an object to a vector drawing
- Select one object or multiple objects/delete objects
- Move objects between layers of a drawing
- Group and ungroup selected objects
- Duplicate objects using copy and paste
- Modify objects
- Reposition objects
- Combine options to achieve desired effect
- Create a vector drawing for a given purpose

As a Year 5 Computer Scientist I can…

Project Evolve

Data and Information Flat file databases

- To export information in different formats
- To choose which attribute and value to search by to answer a given question (operands)
- To ask questions that need more than one attribute to answer
- To choose which attribute to sort data by to answer a given question
- To choose multiple criteria to search data to answer a given question (AND and OR)
- To select an appropriate graph to visually compare data
- To choose suitable ways to present information to other people

Programming A

- To create a condition-controlled loop
- To use a condition in an 'if...then…' statement to start an action
- To use selection to switch the program flow in one of two ways
- To use a condition in an 'if...then...else…' statement to produce given outcomes