Year Five Computing Overview for the Year

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Term 1	**Computing systems and networks – Systems & Searching** **Lesson 1:** **LO:** To explain that computers can be connected together to form systems. **KS2: CO 1, 2, 4, 6** **Big Idea (Aspect):** **Investigation** (Networks) **Materials** (Hardware)	**Computing systems and networks – Systems & Searching** **Lesson 2:** **LO:** To recognise the role of computer systems in our lives. **KS2: CO 1, 2, 4, 6** **Big Idea (Aspect):** **Materials** (Hardware)	**Computing systems and networks – Systems & Searching** **Lesson 3:** **LO:** To experiment with search engines. **KS2: CO 1, 2, 4, 6** **Big Idea (Aspect):** **Comparison** (Digital searching)	**Computing systems and networks – Systems & Searching** **Lesson 4:** **LO:** To describe how search engines select results. **KS2: CO 1, 2, 4, 6** **Big Idea (Aspect):** **Comparison** (Digital searching)	**Computing systems and networks – Systems & Searching** **Lesson 5:** **LO:** To explain how search results are ranked. **KS2: CO 1, 2, 4, 6** **Big Idea (Aspect):** **Comparison** (Digital searching)	**Computing systems and networks – Systems & Searching** **Lesson 6:** **LO:** To recognise why the order of results is important, and to whom. **KS2: CO 1, 2, 4, 6** **Big Idea (Aspect):** **Comparison** (Digital searching)
Term 2	**Creating media – Video Production** **Lesson 1:** **LO:** To explain what makes a video effective. **KS2: CO 5, 6, 7**	**Creating media – Video Production** **Lesson 2:** **LO:** To identify digital devices that can record video. **KS2: CO 5, 6, 7**	**Creating media – Video Production** **Lesson 3:** **LO:** To capture video using a range of techniques. **KS2: CO 5, 6, 7**	**Creating media – Video Production** **Lesson 4:** **LO:** To create a storyboard. **KS2: CO 5, 6, 7**	**Creating media – Video Production** **Lesson 5:** **LO:** To identify that video can be improved through reshooting and editing. **KS2: CO 5, 6, 7**	**Creating media – Video Production** **Lesson 6:** **LO:** To consider the impact of the choices when making and sharing a video. **KS2: CO 5, 6, 7**

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	Big Idea (Aspect): **Place** (Real world) **Materials** (Software) **Creativity** (Creation)	**Big Idea (Aspect):** **Place** (Real world) **Materials** (Software) **Creativity** (Creation)	**Big Idea (Aspect):** **Place** (Real world) **Materials** (Software) **Creativity** (Creation)	**Big Idea (Aspect):** **Place** (Real world) **Materials** (Software) **Creativity** (Creation)	**Big Idea (Aspect):** **Place** (Real world) **Materials** (Software) **Creativity** (Creation)	**Big Idea (Aspect):** **Place** (Real world) **Materials** (Software) **Creativity** (Creation)
Term 3	**Programming A – Selection in physical computing.** **Lesson 1:** **LO:** To control a simple circuit connected to a computer. **KS2: CO 1, 2, 3, 6** **Big Idea (Aspect):** **Investigation** (Data and Computational Thinking) **Processes** (Physical Interaction) **Materials** (Hardware)	**Programming A – Selection in physical computing.** **Lesson 2:** **LO:** To write a program that includes count-controlled loops. **KS2: CO 1, 2, 3, 6** **Big Idea (Aspect):** **Investigation** (Data and Computational Thinking) **Processes** (Physical Interaction) **Materials** (Hardware)	**Programming A – Selection in physical computing.** **Lesson 3:** **LO:** To explain that a loop can stop when a condition is met. **KS2: CO 1, 2, 3, 6** **Big Idea (Aspect):** **Investigation** (Data and Computational Thinking) **Processes** (Physical Interaction) **Materials** (Hardware)	**Programming A – Selection in physical computing.** **Lesson 4:** **LO:** To explain that a loop can be used to repeatedly check whether a condition has been met. **KS2: CO 1, 2, 3, 6** **Big Idea (Aspect):** **Investigation** (Data and Computational Thinking) **Processes** (Physical Interaction) **Materials** (Hardware)	**Programming A – Selection in physical computing.** **Lesson 5:** **LO:** To design a physical project that includes selection. **KS2: CO 1, 2, 3, 6** **Big Idea (Aspect):** **Investigation** (Data and Computational Thinking) **Processes** (Physical Interaction) **Materials** (Hardware)	**Programming A – Selection in physical computing.** **Lesson 6:** **LO:** To create a program that controls a physical computing project. **KS2: CO 1, 2, 3, 6** **Big Idea (Aspect):** **Investigation** (Data and Computational Thinking) **Processes** (Physical Interaction) **Materials** (Hardware)
Term 4	**Data and information – Flat-file databases.**	**Data and information – Flat-file databases.**	**Data and information – Flat-file databases.**	**Data and information – Flat-file databases.**	**Data and information – Flat-file databases.**	**Data and information – Flat-file databases.**

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	Lesson 1: Creating a paper-based database **LO:** To choose a form to record information. **KS2: CO 5, 6** **Big Idea (Aspect):** **Nature** (Real world)	**Lesson 2:** Computer databases **LO:** To compare and computer-based databases **KS2: CO 5, 6** **Big Idea (Aspect):** **Nature** (Real world)	**Lesson 3:** Using a database **LO:** To outline how you can answer questions by grouping and then sorting data **KS2: CO 5, 6** **Big Idea (Aspect):** **Nature** (Real world)	**Lesson 4:** Using search tools **LO:** To explain that tools can be used to select specific data **KS2: CO 5, 6** **Big Idea (Aspect):** **Nature** (Real world)	**Lesson 5:** Comparing data visually **LO:** To explain that computer programs can be used to compare data visually **KS2: CO 5, 6** **Big Idea (Aspect):** **Nature** (Real world)	**Lesson 6:** Databases in real life **LO:** To use a real-world databases to answer questions. **KS2: CO 5, 6** **Big Idea (Aspect):** **Nature** (Real world) **Place** (Real world)
Term 5	**Creating media – Introduction to vector graphics.** **Lesson 1:** **LO:** To identify that drawing tools can be used to produce different outcomes **KS2: CO 6** **Big Idea (Aspect):** **Place** (Digital World)	**Creating media – Introduction to vector graphics.** **Lesson 2:** **LO:** To create a vector drawing by combining shapes **KS2: CO 6** **Big Idea (Aspect):** **Place** (Digital World)	**Creating media – Introduction to vector graphics.** **Lesson 3:** **LO:** To use tools to achieve a desired effect **KS2: CO 6** **Big Idea (Aspect):** **Place** (Digital World)	**Creating media – Introduction to vector graphics.** **Lesson 4:** **LO:** To recognise that vector drawings consist of layers **KS2: CO 6** **Big Idea (Aspect):** **Place** (Digital World)	**Creating media – Introduction to vector graphics.** **Lesson 5:** **LO:** To group objects to make them easier to work with **KS2: CO 6** **Big Idea (Aspect):** **Place** (Digital World)	**Creating media – Introduction to vector graphics.** **Lesson 6:** **LO:** To apply what I have learned about vector drawings **KS2: CO 6** **Big Idea (Aspect):** **Place** (Digital World)

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	Creativity (Creation)	Creativity (Creation)	Creativity (Creation)	Creativity (Creation)	Creativity (Creation)	Creativity (Creation)
Term 6	**Programming B – Selection in quizzes.** **Lesson 1:** **LO:** To explain how selection is used in computer programs **KS2: CO 1, 2, 3, 6** **Big Idea (Aspect):** **Investigation** (Data and Computational Thinking) **Materials** (Software)	**Programming B – Selection in quizzes.** **Lesson 2:** **LO:** To relate that a conditional statement connects a condition to an outcome **KS2: CO 1, 2, 3, 6** **Big Idea (Aspect):** **Investigation** (Data and Computational Thinking) **Materials** (Software)	**Programming B – Selection in quizzes.** **Lesson 3:** **LO:** To explain how selection directs the flow of a program **KS2: CO 1, 2, 3, 6** **Big Idea (Aspect):** **Investigation** (Data and Computational Thinking) **Materials** (Software)	**Programming B – Selection in quizzes.** **Lesson 4:** **LO:** To design a program which uses selection **KS2: CO 1, 2, 3, 6** **Big Idea (Aspect):** **Investigation** (Data and Computational Thinking) **Materials** (Software)	**Programming B – Selection in quizzes.** **Lesson 5:** **LO:** To create a program which uses selection **KS2: CO 1, 2, 3, 6** **Big Idea (Aspect):** **Investigation** (Data and Computational Thinking) **Materials** (Software)	**Programming B – Selection in quizzes.** **Lesson 6:** **LO:** To evaluate my program **KS2: CO 1, 2, 3, 6** **Big Idea (Aspect):** **Investigation** (Data and Computational Thinking) **Materials** (Software)