Science Overview - Year 6

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Term 1	Light **Lesson 1: How We See** **LO:** To explain that light travels in straight lines from light sources to our eyes, and from light sources to objects and then to our eyes. **Y6:Sc:L1, Y6:Sc:L2, Y6:Sc:L3** **Big Idea (Aspect):** **Processes** (Earth, Earth) **Investigation** (Questioning)	Light **Lesson 2: Reflecting Light** **LO:** To understand how mirrors reflect light, and how they can help us see objects. **Y6:Sc:L1, Y6:Sc:L2, Y6:Sc:L3** **Big Idea (Aspect):** **Processes** (Earth, Earth) **Investigation** (Questioning)	Light **Lesson 3: Refraction** **LO:** To investigate how refraction changes the direction in which light travels. **Y6:Sc:L1, Y6:Sc:L2, Y6:Sc:L3** **Big Idea (Aspect):** **Processes** (Earth, Earth) **Investigation** (Questioning)	Light **Lesson 4: Spectacular Spectrum** **LO:** To investigate how a prism changes a ray of light **Y6:Sc:L1, Y6:Sc:L2, Y6:Sc:L3** **Big Idea (Aspect):** **Processes** (Earth, Earth) **Significance** (Significant People) **Investigation** (Questioning)	Light **Lesson 5: Seeing Colours** **LO:** To investigate how light enables us to see colours. **Y6:Sc:L1, Y6:Sc:L2, Y6:Sc:L3, Y5-6:Sc:WS3, Y5-6:Sc:WS5** **Big Idea (Aspect):** **Processes** (Earth, Earth) **Investigation** (Gather & record data, Report & conclude, Questioning) **Creativity** (Gather & record data, Report & conclude)	Light **Lesson 6: Shadow Theatre** **LO:** To explain why shadows have the same shape as the object that casts them. **Y6:Sc:L1, Y6:Sc:L4, Y5-6:Sc:WS6** **Big Idea (Aspect):** **Processes** (Earth, Pattern seeking) **Investigation** (Questioning)
Term 2	Science: Evolution and inheritance **Lesson 1: Inheritance** **LO:** To explain the scientific concept of inheritance. **Y6:Sc:EL2**	Science: Evolution and inheritance **Lesson 2: Adaptation** **LO:** To demonstrate understanding of the scientific meaning of adaptation.	Science: Evolution and inheritance **Lesson 3: Theory of Evolution** **LO:** To identify the key ideas of the theory of evolution.	Science: Evolution and inheritance **Lesson 4: Evidence for Evolution** **LO:** To identify evidence for evolution from fossil records.	Science: Evolution and inheritance **Lesson 5: Evidence for Evolution: Humans** **LO:** To understand how human beings have evolved.	Science: Evolution and inheritance **Lesson 6: Adaptation, Evolution and Human Intervention** **LO:** To explain how adaptations can result

Science Overview - Year 6

	Big Idea (Aspect): **Nature** (Identification & classification, parts & functions, Survival) **Investigation** (Questioning)	**Y6:Sc:EL3** **Big Idea (Aspect):** **Nature** (parts & functions, Survival) **Investigation** (Questioning)	**Y5-6:Sc:WS6, Y6:Sc:EL3** **Big Idea (Aspect):** **Change** (Living things) **Nature** (parts & functions) **Investigation** (Questioning)	**Y5-6:Sc:WS6, Y6:Sc:EL1** **Big Idea (Aspect):** **Change** (Living things) **Nature** (parts & functions) **Processes** (Changes) **Investigation** (Questioning)	**Y5-6:Sc:WS6, Y6:Sc:EL1** **Big Idea (Aspect):** **Change** (Living things) **Nature** (parts & functions) **Investigation** (Questioning)	in both advantages and disadvantages and explain how human intervention affects evolution. **Y6:Sc:EL3** **Big Idea (Aspect):** **Change** (Living things) **Nature** (parts & functions, Survival) **Investigation** (Questioning)
Term 3	**Science: Animals including humans** **Lesson 1: The Heart** **L.O.** To know the three main parts of the circulatory system and describe the job of the heart. **Y6:Sc:A1** **Big Idea (Aspect):** **Humankind** (Human body)	**Science: Animals including humans** **Lesson 2: Blood** **L.O.** To describe the important jobs of the blood vessels and blood. **Y6:Sc:A1** **Big Idea (Aspect):** **Humankind** (Human body)	**Science: Animals including humans** **Lesson 3: Investigating Heart Rate** **L.O.** To be able to describe the importance of exercise and how it affects the heart and plan a scientific enquiry. **Y6:Sc:A3** **Big Idea (Aspect):** **Nature** (Nutrition) **Creativity** (Gather & record data, Report & conclude)	**Science: Animals including humans** **Lesson 4: The Benefits of Exercise** **L.O.** To understand that regular exercise is important for a healthy body **Y6:Sc:A2** **Big Idea (Aspect):** **Humankind** (Healthy lifestyle)	**Science: Animals including humans** **Lesson 5: Diet and Exercise** **L.O.** To be able to explain how diet and exercise affect the body **Y5-6:Sc:WS1**, **Y5-6:Sc:WS2**, **Y5-6:Sc:WS3**, **Y5-6:Sc:WS5** **Big Idea (Aspect):** **Investigation** (Investigation, Measurement, Gather &	**Science: Animals including humans** **Lesson 6: Drugs and Alcohol** **L.O.** To be able to recognise the impact of drugs and alcohol on the way bodies function. **Y6:Sc:A2, Y5-6:Sc:WS6** **Big Idea (Aspect):** **Humankind** (Healthy lifestyle)

Science Overview - Year 6

			Investigation (Questioning, Measurement, Investigation, Observations, Report & conclude, Gather & record data)		record data, Report & conclude) **Creativity** (Gather & record data, Report & conclude)	
Term 4	**Science: Electricity** **Lesson 1: It's Electrifying!** **L.O.** To explain the importance of the major discoveries in electricity. **Y5-6:Sc:WS6** **Big Idea (Aspect):** **Significance** (Significant Events, Significant People) **Investigation** (Questioning)	**Science: Electricity** **Lesson 2: Circuit Symbols** **L.O.** To observe and explain the effects of differing volts in a circuit. **Y6:Sc:E3** **Big Idea (Aspect):** **Processes** (Forces, Modelling) **Investigation** (Questioning) **Comparison**(Phenomena)	**Science: Electricity** **Lesson 3: Volts** **L.O.** To observe and explain the effects of differing volts in a circuit. **Y6:Sc:E1** **Big Idea (Aspect):** **Processes** (Forces, Modelling) **Investigation** (Questioning) **Comparison**(Phenomena)	**Science: Electricity** **Lesson 4: Electricity Investigation (Part 1)** **L.O.** To plan an investigation and understand variations in how components function. **Y6:Sc:E2, Y5-6:Sc:WS1** **Big Idea (Aspect):** **Processes** (Forces, Modelling) **Investigation** (Investigation, Questioning) **Comparison**(Phenomena)	**Science: Electricity** **Lesson 5: Electricity Investigation (Part 2)** **L.O.** To conduct an investigation and record my data and report my findings. **Y6:Sc:E2, Y5-6:Sc:WS3, Y5-6:Sc:WS5** **Big Idea (Aspect):** **Processes** (Forces, Modelling) **Investigation** (Report & conclude, Gather & record data, Questioning) **Creativity** (Report & conclude, Gather & record data) **Comparison**(Phenomena)	**Science: Electricity** **Lesson 6: Electricity Investigation (Part 3)** **L.O.** To investigate my results further **Y6:Sc:E2** **Big Idea (Aspect):** **Processes** (Forces, Modelling) **Investigation** (Report & conclude, Gather & record data, Questioning) **Creativity** (Report & conclude, Gather & record data) **Comparison**(Phenomena)

Science Overview - Year 6

Term 5	**Science: Living things and their habitat** **Lesson 1: Classifying Conundrums** **L.O.** To give reasons for classifying animals based on their similarities and differences. **Y6:Sc: LT1, Y6:Sc: LT2** **Big Idea (Aspect):** **Nature** (Identification & classification, Identification & classification)	**Science: Living things and their habitat** **Lesson 2: Linnaean System** **L.O.** To describe how living things are classified into groups. **Y6:Sc: LT1, Y6:Sc: LT2** **Big Idea (Aspect):** **Nature** (Identification & classification, Identification & classification) **Place** (Habitats) **Significance** (Significant People)	**Science: Living things and their habitat** **Lesson 3: Curious Creatures** **L.O.** To identify the characteristics of different types of animals and classify a creature based on its characteristics. **Y6:Sc: LT1, Y6:Sc: LT2** **Big Idea (Aspect):** **Nature** (Identification & classification, Identification & classification) **Place** (Habitats)	**Science: Living things and their habitat** **Lesson 4: Microorganisms** **L.O.** To describe and investigate helpful and harmful microorganisms. **Y6:Sc: LT1, Y6:Sc: LT2** **Big Idea (Aspect):** **Investigation** (Questioning, Measurement, Investigation, Observations, Report & conclude, Gather & record data) **Creativity** (Report & conclude, Gather & record data)	**Science: Living things and their habitat** **Lesson 5: More About Microorganisms** **L.O.** To identify the characteristics of different types of microorganisms. **Y6:Sc: LT1, Y6:Sc: LT2** **Big Idea (Aspect):** **Investigation** (Questioning, Measurement, Investigation, Observations, Report & conclude, Gather & record data) **Creativity** (Report & conclude, Gather & record data)	**Science: Living things and their habitat** **Lesson 6: Field Guide** **L.O.** To classify organisms found in my local habitat and explain the classification of organisms found in my local habitat. **Y6:Sc: LT1, Y6:Sc: LT2, Y5-6:Sc:WS4** **Big Idea (Aspect):** **Nature** (Identification & classification, Identification & classification) **Place** (Habitats) **Comparison**(Physical things)

Science Overview - Year 6

Term 6	Science: Scientists and inventors **Lesson 1: Stephen Hawking** **LO:** To understand Stephen Hawking's theories about black holes and report my findings. **Big Ideas (Aspect):** **Significance** (Significant People) **Investigation** (Report & conclude) **Creativity** (Report & conclude)	Science: Scientists and inventors **Lesson 2: Libbie Hyman** **LO:** To understand Libbie Hyman's work about classification. **Y6:Sc: LT2** **Big Ideas (Aspect):** **Significance** (Significant People) **Nature** (Identification & classification, Identification & classification)	Science: Scientists and inventors **Lesson 3: Marie Maynard Daly** **LO:** To explain how diet affects the way the body functions. **Y6:Sc:A2** **Big Ideas (Aspect):** **Significance** (Significant People) **Humankind** (Healthy lifestyle)	Science: Scientists and inventors **Lesson 4: Alexander Fleming** **LO:** To record and interpret data on the effects of penicillin using a scatter graph. **Y5-6:Sc:WS3** **Big Ideas (Aspect):** **Significance** (Significant People) **Investigation** (Gather & record data) **Creativity** (Gather & record data, Report & conclude)	Science: Scientists and inventors **Lesson 5: Mary Leakey** **LO:** To understand the life of Mary Leakey and her work about fossils. **Y6:Sc:EL2** **Big Ideas (Aspect):** **Significance** (Significant People) **Processes** (Changes)	Science: Scientists and inventors **Lesson 6: Dr Daniel Hale Williams** **LO:** To label the parts and functions of the heart and explain Dr Daniel Hale Williams' accomplishments. **Y6:Sc:A1** **Big Ideas (Aspect):** **Significance** (Significant People) **Nature** (Nutrition) **Humankind** (Human body) **Lesson 7: Steve Jobs** **L.O.** To understand how Steve Jobs used electronics to design computers and design simple circuits. **Y6:Sc:E3** **Big Ideas (Aspect):** **Significance** (Significant People) **Processes** (Modelling)