Year 6 Learning Journal – Science 2022

I'm working towards:	Mastery	Secure	Developing	Emerging

	Autumn Term	Spring Term		Summer Term	
	Blood Heart and Transportation	**Light**	**Evolution and Inheritance**	**Electrical Circuits**	**Classifying Living Organisms**
Mastery					
Secure					
Developing					
Emerging					

Term	Knowledge and Working Scientifically
Autumn term	Two areas that I need to work on: • •
Spring term	Two areas that I need to work on: • •
Summer term	Two areas that I need to work on: • •

Year 6 Science

	Blood, Heart and Transportation (Animals Including Humans)	Light	Evolution and Inheritance	Electrical Circuits	Classifying Living Organisms
Emerging	**Identify** the heart from body organs **Name** the main parts of the human circulatory system **Recall** at least one component of blood **Measure** pulse, with support **Define** the uses of different drugs	**State** that light appears to travel in straight lines **Recall** light is reflected off surfaces so that we can see it **Recall** that shadows can change **Describe** how to create a shadow **Describe** how a rainbow is made	**State** some inherited characteristics **State** characteristics of a camel that help it survive **Suggest** adaptations of a cactus or simple plant **Define** Extinct **Identify** how living things have changed over time **Identify** differences in human ancestors	**Identify** components from their symbol **Use** a voltmeter to measure voltage, with support **Identify** problems in a circuit **Identify** the effect of changing one component at a time in a circuit **Create** a simple circuit that can turn on lights, with support	**State** different types of living things **Recall** some kingdoms of life **Name** some groups of classification **Define** "Vertebrates" **Give** examples of species that live in soil
Developing	**State** the function of the heart **Define** the function of different blood vessels **Recall** at least one component of blood and its function **Measure** pulse accurately and independently **Describe** the impact of drugs/alcohol on health	**Annotate** a diagram to represent light **Define** reflection **Describe** how a periscope works **Describe** how a shadow can change shape **Describe** how a rainbow is made, using key terminology	**Sort** characteristics into inherited or environmental characteristics **Describe** an animal's adaptation that help it to survive in the habitat **Describe** how a plant is adapted to its environment **Describe** the purpose of a fossil **Define** natural selection **Describe** differences in human ancestors	**Identify** components from their symbol and definitions **Use** a voltmeter to measure voltage independently **Identify** problems in a circuit **Sort** materials into insulators and conductors **Create** a simple circuit that can turn on lights	**Identify** ways to differentiate living things **Name** the six kingdoms of life **Name** the groups of classification **Identify** the different types of vertebrates **Give** examples of species that live in soil
Secure	**Identify** oxygenated and deoxygenated blood **Describe** how blood moves around the heart **Describe** the composition of the blood and its function **Describe** how lifestyle choices can affect health **Describe** some drugs used to support the circulatory system	**Draw** a diagram to represent light **Define** reflection using examples **Describe** how a periscope works and **represent** in a diagram **Conduct** an experiment to investigate shadow changes **Describe** how our eyes respond to light	**Suggest** why offspring look similar but not identical to their parents **Explain** how an animal's adaptation helps it to survive in the habitat **Explain** how plants adaptation helps it to survive in the habitat **Use** evidence from fossils to suggest some conclusions about life in the past **Describe** how natural selection causes living things to evolve over time **Describe** how humans have evolved	**Create** a simple electrical circuit **Describe** how the brightness of a bulb is affected by the voltage/number of cells in the circuit **Describe** problems in a circuit **Recognise** materials which are insulators and materials which are conductors **Design** a switch to turn on lights one by one **Describe** the effects on components from use of a variable resistor; a bulb is brighter or dimmer, a buzzer is louder or softer	**Describe** how to classify a range of living animals and plants **Describe** the differences between the six kingdoms of life **Identify** living things belonging to each group by their characteristics **Describes** some different vertebrates and gives information that helps to help classify them **Describe** the variety of species that live in soil
Mastery	**Describe** how blood moves around the heart **Explain** issues surrounding restricted arteries **Explain** the function of cells within the blood **Explain** how lifestyle choices can affect health and suggest improvements **Evaluate** the impact on different drugs/alcohol on health and lifestyle	**Draw** a diagram to represent light **Explain** the difference between regular and irregular reflection **Explain** how reflection can be used to help us see, giving examples **Design** an experiment to investigate shadow changes **Describe** how light is refracted	**Compare** inherited and environmental characteristics **Predict** how an animal would have to adapt to suit a different habitat **Create** a new plant that is perfectly adapted to survive in a habitat **Use** evidence from fossils, **compare** extinct animals with those that are living and **identify** adaptations **Explain** why the theory of evolution was not accepted at first **Compare** and **contrast** Neanderthals and homo sapiens	**Create** an accurate circuit diagram **Explain** how the brightness of a bulb is affected by the voltage/number of cells in the circuit **Explain** how to fix issues in a circuit **Recognise** materials which are insulators and materials which are conductors and **sugge**st uses **Compare** the results and the output of their circuit by changing the connections and recording effects **Explain** why an individual component's output is affected by turning a variable resistor	**Explain** how living things are classified by designing their own chart and compares their size **Explain** the common characteristics that all living things share **Explain** how to identify and classify living things, identifying the differences between the groups **Explain** why vertebrates are classified into certain groups **Explain** why certain species prefer a soil habitat