STEEL RIVER ACADEMY TRUST

Progression of Disciplinary Skills Year 5 and 6

 Asking questions	 Observing and measuring	 Setting up tests	 Recording Data and findings	 Evaluating	 Making predictions	 Interpreting and communicating results
Independently ask a variety of scientific questions and decide the type of enquiry needed to answer them (e.g. testing, research, observations over time, pattern seeking etc). Recognise scientific questions that do not yet have a definitive answer e.g. are all species related?	Taking measurements using a range of scientific equipment with increasing accuracy and precision, taking repeat readings when needed. (e.g. thermometer, newton meter, heart rate monitor, light meter).	Planning different types of scientific enquiries to answer questions, including recognising and identifying variables: Independent variable (the thing being changed- the material used to create a parachute) Dependent variable (what is being measured e.g. the amount of time it took for the parachute to fall.) Control variables (things that stay the same e.g. The height the	Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs. (e.g. producing a line graph with 2 data sets including a resting rate and a heart rate during exercise).	Using test results to make predictions (e.g. from results found from the parachute experiment testing different materials, conduct a secondary investigation to determine how efficient that material is by dropping the parachuted from different hights. to set up further comparative and fair tests which will strengthen understanding of the original hypothesis.	Make scientific predictions based on their knowledge and understanding of science. Present their predictions using scientific evidence 'Present their predictions using 'if and then' statements (e.g. **If** a vehicle has more fuel, **then** it will travel further Understands that a prediction suggests a relationship between the dependent and	Choosing the appropriate method for reporting and presenting findings from enquiries through conclusions that show the understanding of cause and effect (e.g. oral and written forms such as displays and presentations. E.g. if we increase the voltage in a circuit the brightness of the bulb will also increase). Know when to repeat measurements and remove outliers from

How does natural selection work? Refine a scientific question to make it testable (e.g. what would happen to… if we changed…?		parachute is dropped from.)		Identifying scientific evidence that has been used to support or refute ideas (e.g. using scientific enquiry or research from famous scientists to agree or disagree with an argument such as the flat vs spherical earth debate).	independent variable (e.g. I think that the more fuel a vehicle has (**Independent variable**), the greater the distance that vehicle will travel (**dependent variable**)	a set of data, justifying the removal as a potential mismeasurement. Present their conclusions using scientific evidence and identify/describe any patterns in data