EGERTON PRIMARY SCHOOL KNUTSFORD

SCIENCE END POINTS ASSESSMENT

"Ready to learn. Ready to thrive. Ready for tomorrow."

"The important thing is to never stop questioning."

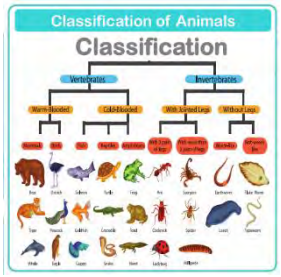
Albert Einstein

Science at Egerton Primary School
Scientific Enquiry: **Comparative/Fair testing** – Carrying out fair tests to see the effect of a changing variable.
Research – Using secondary sources of information to answer questions.
Observation over time – Observe changes that occur over a period of time (minutes to months).
Pattern-seeking – Identifying patterns and looking for relationships in enquires.
Identifying, grouping and classifying – Identifying patterns and looking for relationships in enquires.
Biology • **Understand plants** – This concept involves becoming familiar with different types of plants, their structure and reproduction. • **Understand animals and humans** – This concept involves becoming familiar with different types of animals, humans and the life processes they share. • **Investigate livings things** – This concept involves becoming familiar with a wider range of livings things, including insects and understanding life processes. • **Understand evolution and inheritance** – This concept involves understanding that organisms come into existence, adapt, changes and evolve and become extinct.
Chemistry • **Investigate materials** – This concept involves becoming familiar with a range of materials, their properties, uses and how they may be altered or changed.
Physics • **Understand movement, forces and magnets** – This concept involves understanding what causes motion. • **Understand the Earth's movement in space –** This concept involves understanding what causes seasonal changes, day and night. • **Investigate light and seeing –** This concept involves understanding how light and reflection affect sight. • Investigate sound and hearing – This concept involves understanding how sound is produced, how it travels and how is it heard. • **Understand electrical circuits** – This concept involves understanding circuits and their role in electrical applications.

Year 6

Living Things and their Habitats –

Classification



End Point Assessment
I can classify living things into broad groups according to observable characteristics and based on similarities & differences.
I can describe how living things have been classified.
I can give reasons for classifying plants and animals in a specific way.
I can give examples of the way in which living things are classified into broad groups.
I can classify animals into commonly found vertebrates and invertebrates.
I can explain the significance of the work of Carl Linnaeus.
Skills
I can evaluate various ways of recording complex data.
I can suggest possible limits to causal relationships.
I can display and present key findings orally and in writing.
I can indicate in conclusions why the results may not be entirely trustworthy.

Unit Rocket Words: **Living Things and their Habitats**

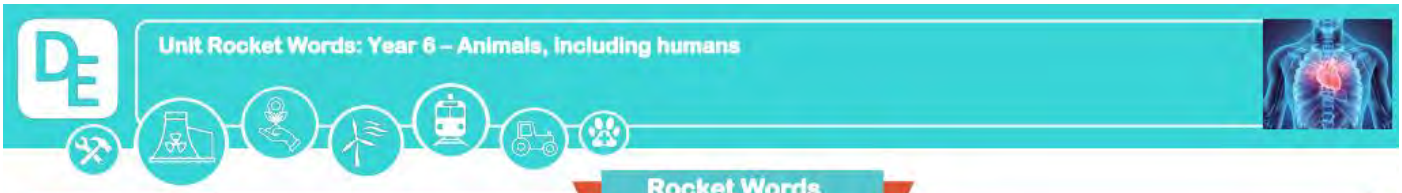
Rocket Words	
classification	The arrangement of animals and plants in groups according to their observered similarities.
microorganism	A tiny, microscopic organism such as bacteria, virus or fungus.
habitat	A place where living organisms live.
living organism	Something that can move, use energy and reproduce.
species	The smallest class of organisms.
microscopic	A microscopic organism, too small to see with the naked eye.
ecosystem	A group of living organisms that live and interact with each other in a specific environment.
kingdom	A category grouping together all forms of life, having certain characeristics in common.
Linnaean System	A diverse kingdom which include mushrooms and brewer's yeasts.
cell	The smallest structural and functional unit of an organism.

Year 6

Animals Including Humans –

Circulatory System

End Point Assessment
I can identify and name the main parts of the human circulatory system.
I can describe the functions of the heart.
I can describe the functions of blood and blood vessels.
I can recognise the impact that diet, exercise, drugs and lifestyle can have on the body.
I can describe the ways in which nutrients and water are transported within animals, including humans.
I can describe the path that blood takes around the heart.
I can name some of the valves of the heart and explain their role.
I can give examples of ways to keep our bodies healthy and describe the benefits to specific parts of our circulatory system.
Skills
I can display and present key findings orally and in writing.
I can recognise the limitations of available equipment.
I can identify situations in which taking repeat readings will improve the quality of evidence.
I can evaluate which further comparative or fair tests would be particularly useful. I can indicate in conclusions why the results may not be entirely trustworthy.



Rocket Words

circulatory system	the system that controls the flow of blood around the body
BPM	beats per minute measuring heart rate
diet	the kind of food an animal usually eats
pulse	the rhythmical throbbing of the arteries as blood is pumped through them
oxygenated	containing oxygen
deoxygenated	not containing oxygen
atrium	the upper chambers of the heart
ventricle	the lower chambers of the heart
vessel	tube which circulates the blood through the body
valve	flaps which open and close to allow blood flow
diffusion	diffusion is the movement of all liquids and gases
osmosis	osmosis is the movement of water only

Year 6

Evolution and Inheritance

End Point Assessment
I can recognise that living things have changed over time.
I understand that fossils provide information about living things that inhabited the Earth millions of years ago.
I can recognise that living things produce offspring of the same kind, but they usually vary and are not identical to their parents.
I can identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. I can explain how variation leads to competition.
I can explain the effect of dominant and recessive genes and how this affects offspring.
Skills
I can give examples of natural selection. I can evaluate which further tests would be particularly useful.
I can display and present key findings orally and in writing.
I can explain why a labelled diagram might be particularly effective.

Unit Rocket Words: Evolution and Inheritance

Rocket Words

inherit	when features are passed on from parents to offspring
adaptation	changes or special features of a living thing to help it live in a habitat
epiphytes	plants that grow on the surface of other plants
fossil	the remains or impression of a prehistoric plant or animal embedded in rock
Mary Anning	A famous palaeontologist who discovered fossils on the Jurassic Coast
palaeontologist	a scientist that studies the remains of plants and animals found as fossils
ichthyosaurus	a large marine reptile that lived 201-194 million years ago
Charles Darwin	an English naturalist, best known for his theory of evolution
evolved	how living things gradually change over time
natural selection	survival and reproduction of the fittest
ancestor	a person/living thing an organism is descended from
Homo sapiens	the scientific name for the human species

Year 6

Light

End Point Assessment
I can recognise that light appears to travel in straight lines.
I can explain that objects are seen because they give out or reflect light into the eye.
I can explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.
I can use my knowledge to explain why shadows have the same shape as the objects that cast them.
I can describe some functions of different parts of the eye.
I can give examples of when refraction occurs and explain how it changes the path of a ray of light.
I can define dispersion and explain why we sometimes see rainbows in the sky.
Skills
I can suggest which type of enquiry is likely to be successful at providing answers to a particular question.
I can explain why a labelled diagram may be particularly effective.
I can consider how modifying equipment can improve results.
I can recognise variables that cannot easily be managed.
I can explain the advantages of line graphs.

Unit Rocket Words: Year 6 Light

Rocket Words

	light	a form of energy
	light source	an object that provides its own light
	reflected	when light shines on a surface and bounces back
	variable	any one of the elements of an experiment which could be changed
	angle	the space between 2 intersecting lines
	mirror	a surface that reflects a clear image
	opaque	it describes materials which do not allow light to travel through
	transparent	it describes materials which allow all light to travel through
	sunshade	a device giving protection from the sun
	rotate	to turn an object around a centre point
	optical	relating to the science of optics
	spectrum	a band of several colours

Year 6

Electricity

End Point Assessment
I can use symbols when drawing a simple circuit diagram.
I can associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.
I can compare and give reasons for variations in how components function, including the brightness of bulbs, the volume of buzzers and the position of switches.
I can identify the effect of changing one component at a time in a circuit.
I can explain the role of insulators and conductors within a circuit.
I can explain the role of insulators and conductors within a circuit.
Skills
I can explain why a labelled diagram may be particularly effective.
I can write a conclusion using evidence and identifying causal links.
I can suggest which type of enquiry is likely to be more successful at providing answers to a particular question.
I can recognise variables that cannot easily be managed. I can evaluate ways of recording complex data.

Unit Rocket Words: Year 6 Electricity

Rocket Words

circuit	a compete path which allows electricity to flow
battery	a source of energy in an electrical circuit
electricity	a form of energy
resistor	a component that reduces electric current flow
variable resistor	a component which varies the amount of electric current flow
dimmer switch	a light control which allows you to change the brightness of a light
output	the amount of something produced (e.g., brightness of a bulb)
systematically	working in a methodical way
synchronised	operating at the same time or rate
signal	an electrical impulse transmitted or received
conductor	materials which allow electricity to flow through them easily
insulator	materials that do not let electricity pass through them easily