



EGERTON PRIMARY SCHOOL KNUTSFORD
SCIENCE CONCEPTS AND 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 living things** – This concept involves becoming familiar with a wider range of living things, including insects and understanding life processes.
- **Understand evolution and inheritance** – This concept involves understanding that organisms come into existence, adapt, change and evolve and become extinct.

Chemistry

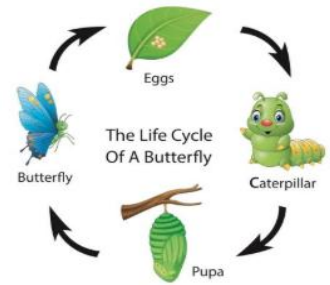
- **Investigate materials** – This concept involves becoming familiar with a range of materials, their properties, uses and how they may be altered or changed.

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 it is heard.
- **Understand electrical circuits** – This concept involves understanding circuits and their role in electrical applications.

Year 2

Animals Including Humans



End Point Assessment
I can identify and describe the basic needs of animals, including humans, for survival, such as water, food, and air.
I can explain how these basic needs are essential for the survival of living beings.
I can notice and describe how animals, including humans, grow from offspring into adults using examples such as egg to chick to chicken or baby to toddler to child to teenager to adult.
I can explain the stages of a human life cycle, from birth to old age
I can explain why exercise, good nutrition, and hygiene are important for maintaining human health.
I can describe the life cycle of different animals, such as chickens, butterflies, and frogs, and compare them to the human life cycle.
Skills
I can ask simple questions about animals and humans and recognize that these questions can be answered in different ways.
I can use my observations and ideas to suggest answers to questions about the growth and needs of animals and humans.
I can gather, record, classify, and present data in various ways to help answer questions about health, nutrition, and life cycles.
I can classify and identify objects by linking observable features to already known objects or things.

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Unit Rocket Words: Year 2 – Living things and their habitats – around the world

Rocket Words

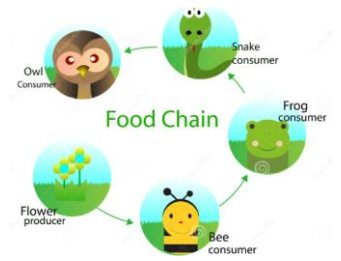
nutrition	food that provides nourishment to live and grow
healthy	being well and fit
protein	a food group, consisting of meat, seafood, eggs, nuts and more, which help the body repair cells
carbohydrate	a food group, including rice, bread and pasta, which give the body energy
dairy	a food group, including cheese, milk and yoghurt, which contains calcium to keeps our bones strong
fat	a food group that are important for energy but only needed in small amounts
exercise	activity requiring physical effort, carried out to improve health and fitness
hygiene	the things you can do to keep yourself and your surroundings clean


Rocket Words

life cycle	a diagram showing the changes in the life of a living thing
foetus	a baby growing inside its mother's womb
womb	area of the mother's body where the foetus grows
offspring	the child, or young, of an animal or plant
reproduction	the process of producing offspring
transformation	a change in appearance or form
metamorphosis	the processes of insects, and some animals, developing into adult forms through a cycle of change
froglet	a young frog that has recently changed from being a tadpole

Year 2

Living Things and their Habitats



End Point Assessment

I can explore and compare the differences between things that are living, dead, and things that have never been alive.

I can name animals in their habitats and microhabitats.

I can explain the characteristics that are essential for keeping living things alive and healthy.

I can describe how different habitats provide for the basic needs of different kinds of animals and plants.

I can explain how animals are suited to their habitat.

I can explain how animals and plants depend on each other within their habitats.

I can identify and name different sources of food for animals within a food chain.

Skills

I can sort and classify things according to whether they are living, dead, or never alive, and record my findings using charts.

I can use my observations and ideas to answer questions about the local environment and identify and study a variety of plants and animals within their habitat.

I can gather, record, and present data on the conditions in different habitats and microhabitats and explain how these conditions affect the number and types of plants and animals that live there.

I can create a chart that sorts and classifies objects or organisms as living, dead, or never alive, explaining my reasoning.

Unit Rocket Words: Year 2 – Living things and their habitats	
Rocket Words	
reproduce	to create young, offspring or babies
excrete	to get rid of unwanted substances from the body
respire	to breathe
habitat	the natural place where an living thing can survive
microhabitat	a small natural area where a living thing can survive, found within larger habitats
survive	to remain alive
producer	a plant at the start of a food chain
consumer	a living thing that eats other living things

Year 2

Plants



End Point Assessment

I can observe and describe how seeds and bulbs grow into mature plants.

I can explain the different stages of growth in plants from germination to maturity.

I can use the local environment to observe how plants grow throughout the year.

I can find out and describe how plants need water, light, and a suitable temperature to grow and stay healthy.

I can explain why seeds and bulbs need water to grow but most do not need light initially because they have a store of food inside them.

Skills

I can set up a comparative test to show that plants need light and water to stay healthy.

I can gather, record, and present data on the growth of plants under different conditions to determine what they need to grow and stay healthy.

I can use my observations and ideas to answer questions about plant growth and health.

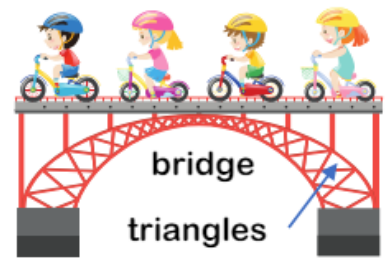
DE Unit Rocket Words: Year 2 – Plants

Rocket Words

photosynthesis	the process in which green plants use sunlight to make their own food
carbon dioxide	plants use this to make their own food in a process called photosynthesis
oxygen	one of the main gases that make up air
glucose	a sugar that plays a vital role in the metabolism of most living organisms
pollination	the process that allows plants to reproduce
germination	the process by which a plant grows from a seed
crop	a plant or plant product that is grown and harvested
forests	places where there are mostly trees

Year 2

Everyday Materials



End Point Assessment

I can identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper, and cardboard, for particular uses.

I can explain why certain materials are suitable or unsuitable for specific purposes based on their properties.

I can observe closely and identify the uses of different materials in and around the school and other places.

I can find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting, and stretching.

I can find out about people who have developed useful new materials, such as John Dunlop, Charles Macintosh, or John McAdam, and describe their contributions.

I can explain how the development of new materials has impacted everyday life.

Skills

I can classify and record my observations of the uses of different materials accurately.

I can use my observations and ideas to answer questions about the suitability and manipulation of materials.

I can create a chart that identifies and compares the suitability of different materials for specific uses, explaining my reasoning.

I can design and conduct an experiment to observe how the shapes of objects made from different materials can be changed by squashing, bending, twisting, and stretching, and record my findings.

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Unit Rocket Words: Year 2 – Uses of everyday materials

Rocket Words

material	anything that is used to make something else
property	the way in which a material is described
obstacle	something that blocks the way
construction	the process of building something
stretchy	something that can pull apart without breaking; elastic
elastic	something that can pull apart without breaking; stretchy
force	a pressure applied to something that makes it change shape or move
bend	to shape or force something into a curved shape