



Reflecting the Kingdom of God by Enriching and Transforming Lives

Learning Map *Science*

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Understanding the world

What similarities, differences, patterns and changes occur in the natural world?
What observations can we make about animals and plants and why things occur?

1

Animals, including humans
How many animals can you describe (including fish, amphibians, reptiles, birds and mammals)?
How would you group and compare these?
What are the different parts of the human body called and how are they linked to our senses?
How might the features of different animals help them?

Seasonal Changes

How does the weather and the length of the day change across the four seasons?

Everyday materials

How many different materials can you name and describe?
How would you group and compare these?

Plants

How many different wild and garden plants can you recognise and name?
How would you describe the structure of a plant?

2

Light and Shadows

Where does light come from and why do we need it? Why is light from the sun dangerous and how can we protect our eyes? How are shadows made and change?

Animals, including humans

What do animals need to survive and thrive?
How do animals obtain and use the nutrition found in food?

Living things and their habitats

Animals, including humans
How do you identify if something is alive, dead or inanimate? How are different plants and animals suited to their habitats and microhabitats?
How can a 'food chain' show how animals obtain their food? How do animals change from infants to adults?

Uses of Everyday materials

How can you compare the suitability of different materials for different jobs?
How can you change the shape of solid objects?

3

Friction and magnets
What do things move on different surfaces? What materials are attracted or repelled by magnets?
How would you describe a magnet and magnetic field?

Plants

How do flowering plants reproduce?
How is water transported around plants?

States of Matter

What are the differences between solids, liquids and gases and how can temperature affect each one?
What processes are there in the water cycle? What factors might affect these processes?

Plants

What do plants need to survive and thrive? How would you explain the life cycle of a plant and the changes that occur?

4

Rocks
How can rocks be compared and classified? How are fossils formed? What is soil made from?

Sound

How are sounds made and how do they travel?
How can pitch and volume be changed?

Animals, including humans

What different types of teeth do humans have and what are their functions? What are the main parts of the digestive system? How can a 'food chain' show the flow of energy between animals?

Living things and their habitats

How are classification keys used to group living things? Do environments change and what dangers might this pose to living things?

Electricity

How are electrical circuits built and what factors affect whether they work?
How do electrical conductors and insulators work?

5

Living things and their habitats and Animals, including humans
What are the differences in the life process of reproduction between animals and plants? What changes occur in humans from birth to old age?

Properties and changes of materials

How can you select materials for different purposes based upon their properties? How do you use mixtures and solutions to explain reversible and irreversible changes?

Forces

How can you describe the impact of gravity? How does air and water resistance affect the movement of objects? How do levers, pulleys and gears affect forces?

6

Space
How do the planets in our solar system and our moon move on to the sun? What causes day and night at different times across our planet?

Living things and their habitats

How are living things classified?
What specific characteristics can be used for classifying living things?

Electricity

How are series circuits constructed and represented using scientific symbols?

Animals including humans

What are the main parts and functions of the human circulatory system? How does our lifestyle affect the way our bodies function? How are nutrients and water transported around our bodies?

Evolution and inheritance

How have living things evolved over Earth's history? What part does genetics play in variation and inheritance? What evidence is there for the theory of evolution?

Light

How does light enter our eyes and enable us to see? What factors can affect our vision and how can it be improved?

Secondary Ready Scientists

Love Wisdom Joy Peace