

KEY OBJECTIVES **Subject Area SCIENCE - ENQUIRY**

Yr Gr	Expected Levels	<u>Key Objectives</u>
1	<i>1</i>	<ul style="list-style-type: none"> - I am able to use my senses carefully and sensibly. - I am able to talk about living things, familiar materials and events. - I can talk, draw or make a simple record (practical or on paper).
2	<i>2</i>	<ul style="list-style-type: none"> - I sometimes ask why, how or what will happen if.....(with help). - I try to guess what will happen. - I know that I can find information in books but need help to find what I need. - I can make comparisons when observing. - I can suggest what other information I need to collect and how to collect it (with help). - I can use carefully. non-standard measures and equipment provided by the teacher.
3	<i>2/3</i>	<ul style="list-style-type: none"> - I try to explain what has happened using the correct words, and compare it with my guess. - I can record simply what has happened in an appropriate form. - I can test questions, ideas and suggestions. - I can find out if I am right by doing an investigation.
4	<i>3</i>	<ul style="list-style-type: none"> - I can use books etc, to find information at my reading level. - I may need help to make it fair and know why it is fair. - I can measure carefully using instruments like rulers, stop clocks etc. - I can describe what happened and suggest a reason why, using scientific words. - I can say how I could improve on what I have done.
5	<i>3/4</i>	<ul style="list-style-type: none"> - I can sometimes use what I have learned in science to suggest things I want to investigate and to predict what will happen or work, from the suggestions of others. - I know that scientific ideas are based on evidence. - I can decide if a fair test is the best way to answer a question.
6	<i>4</i>	<ul style="list-style-type: none"> - I can plan and carry out a fair test, varying one thing to see what happens. - I can find information from different books, CD-ROMs etc that I have been given. - I know that several things may affect what happens. - I can choose appropriate equipment, including measuring instruments, for my investigation. - I can use tables, charts, graphs etc, to plot and gather information, and to present findings to an audience using correct scientific language. - I can use the information I have gathered to see patterns and/or draw conclusions which help answer the question I posed. - I can say how and why I could improve what I have done.

KEY OBJECTIVES **Subject Area: SCIENCE – LIVING THINGS**

Yr Gr	Expected Levels	<u>Key Objectives</u>
1	<i>1</i>	<ul style="list-style-type: none"> - Identify the leaf, root, stem and flower of a plant. - Recognise that plants are living and need water and light to grow. - Identify and locate parts of their body, including sense organs. - Recognise changes that take place as animals get older. - Recognise differences between humans and other animals and between animals and non-living things. - Know the characteristics of living things. - Recognise major organs in a range of animals and compare them to humans.
2	<i>2</i>	<ul style="list-style-type: none"> - Know that flowering plants produce seeds which grow into new plants. - Identify some types of food that make up their diet and name some examples of each. - Recognise that an adequate diet and exercise are necessary for them to grow and stay healthy. - Recognise that animals produce young. - Recognise that different plants and animals live in the local environment and name some of them. - Recognise similarities between animals and between plants and differences within these groups; - Classify living things according to their observable features.
3	<i>2/3</i>	<ul style="list-style-type: none"> - Recognise that plants need light, water and warmth and healthy leaves, roots and stems in order to grow well. - Describe an adequate and varied diet for humans. - Explain the functions of teeth and describe how to care for them. - Recognise that plants provide food for humans and other animals.
4	<i>3</i>	<ul style="list-style-type: none"> - Recognise that the root anchors the plant, and that water and minerals are taken in through the root and transported through the stem to other parts of the plant. - Describe the main functions of their skeleton. Recognise that their skeletons grow as they grow; state that movement depends on both skeleton and muscles. - Describe the links between life processes in familiar animals and plants and the environments in which they are found. - Identify some habitats name a few of the organisms that live there. - State the food source of some animals; distinguish between those which eat plants and those which eat other animals. <p>Represent feeding relationships within a habitat by food chains.</p>
5	<i>3/4</i>	<ul style="list-style-type: none"> - Name and explain the functions of some parts of a flower. - Describe the processes of pollination, fertilisation, seed dispersal and germination. - Explain that living things need to reproduce if the species is to survive and recognise stages in the growth and development of humans. - Identify the components of a healthy and varied diet. - Recognise that the heart acts as a pump to circulate the blood through vessels around the body, including through the lungs. - Recognise some harmful effects of drugs. - Recognise that during exercise the heart beats faster to take blood more rapidly to the muscles.
6	<i>4</i>	<ul style="list-style-type: none"> - Recognise that there are many very small organisms which can cause illness or decay or which can be used in food production. - Recognise that micro-organisms feed, grow and reproduce like other organisms. - Describe the role of the leaf in producing new material for growth. - Describe how animals in habitats are suited to the conditions. <p>Represent feeding relationships in food chains beginning with a green plant.</p>

KEY OBJECTIVES **Subject Area: SCIENCE - ENERGY**

Yr Gr	Expected Levels	<u>Key Objectives</u>
1	<i>1</i>	<ul style="list-style-type: none"> - Describe how sounds are generated by specific objects. - Identify a number of light sources, including the sun. - Recognise that they cannot see in the dark.
2	<i>2</i>	<ul style="list-style-type: none"> - Identify common appliances which use electricity. - Construct and make drawings of simple working circuits and explain why some circuits work and others do not - Recognise that sound travels away from a source, getting fainter with distance travelled.
3	<i>2/3</i>	<ul style="list-style-type: none"> - Explain that shadows are formed when light from a source is blocked
4	<i>3</i>	<ul style="list-style-type: none"> - Classify whether materials are electrical conductors or insulators. - Identify the purpose of components in a circuit. - Recognise that temperature is a measure of how hot or cold objects are. - Identify some materials that are good thermal insulators. - Recognise that the same materials keep cold objects cold as keep warm objects warm. - Recognise that objects cool or warm to the temperature of their surroundings when they are left.
5	<i>3/4</i>	<ul style="list-style-type: none"> - Recognise that sounds are produced when objects vibrate. - Recognise that the pitch and loudness of sounds can be changed. - Recognise that sounds travel through solids, water and air.
6	<i>4</i>	<ul style="list-style-type: none"> - Describe ways of changing the brightness of a bulb in a circuit. - Recognise that light travels from a source, that when it is blocked, a shadow is formed and when it hits a shiny surface, it is reflected. - That light sources are seen when light from them enters the eyes.

KEY OBJECTIVES **Subject Area SCIENCE - FORCES**

Yr Gr	Expected Levels	<u>Key Objectives</u>
1	<i>1</i>	<ul style="list-style-type: none"> - Observe, describe and compare movements they make. - Describe how to make a familiar object start moving by pushing or pulling. - Describe movements of objects in terms of speed or direction.
2	<i>2</i>	<ul style="list-style-type: none"> - Describe how to use pushes and pulls to make familiar objects speed up, slow down, or change direction or shape. - Recognise that pushes and pulls are forces.
3	<i>2/3</i>	<ul style="list-style-type: none"> - Recognise that a force acts in a particular direction. - Classify materials as magnetic or non-magnetic and describe some uses of magnets. - Describe the direction of forces between magnets or between a spring and someone compressing it.
4	<i>3</i>	<ul style="list-style-type: none"> - Identify friction as a force. - Describe some of the factors that increase friction between solid surfaces and increase air and water resistance.
5	<i>3/4</i>	
6	<i>4</i>	<ul style="list-style-type: none"> - Identify that weight is a force and is measured in Newtons. - Describe some situations in which there is more than one force acting on an object.

KEY OBJECTIVES Subject Area: SCIENCE - MATERIALS

<u>Yr</u> Gr	Expected Levels	<u>Key Objectives</u>
1	<i>1</i>	- Name and describe some common solid materials
2	<i>2</i>	- Identify some naturally occurring materials - Describe how heating can change some materials into new and useful materials - Describe what happens to water when it is heated and cooled - Identify uses of some common materials, suggesting several reasons why the material is suitable
3	<i>2/3</i>	
4	<i>3</i>	- Describe the differences between solids and liquids - Describe melting and dissolving and give everyday examples of each - Explain why undissolved solids can be separated from a solution by filtering - Recognise that although it is not possible to see a dissolved solid it remains in the solution
5	<i>3/4</i>	- Recognise that air is a material - Recognise that liquids evaporate to form gases - Recognise that gases change shape and flow from place to place
6	<i>4</i>	- Classify some changes eg dissolving as reversible and others eg burning as irreversible - Recognise that solids remain in the solution when they dissolve and can be recovered by evaporation - Identify several factors that affect the rate at which a solid dissolves - Name and describe examples of the main processes associated with water changing state and recognise that these processes can be reversed