

SCIENCE YEARLY PLAN : YEAR 5

SEMESTER 1

WEEK	LEARNING AREAS	LEARNING OBJECTIVE	LEARNING OUTCOMES
THEME : INVESTIGATING LIVING THINGS			
1	1. Microorganism	1.1 Understanding that microorganism is a living thing.	1.1.1 State types of microorganisms.
2			1.1.2 State that yeast is an example of microorganism.
3		1.1.3 State that microorganism breathes.	
			1.1.4 State that microorganism grows.
			1.1.5 State that microorganism moves.
			1.1.6 Conclude that microorganisms are living things and most of them cannot be seen with naked eyes.
3		1.2 Understanding that some microorganism are harmful and some are useful.	1.2.1 State examples of use of microorganisms.
			1.2.2 State the harmful effects of microorganisms.
			1.2.3 Describe that diseases caused by microorganisms can spread from one person to another.
			1.2.4 Explain ways to prevent diseases caused by microorganisms.
4	2. Survival of the species	2.1 Understanding that different animals have their own ways to ensure the survival of their species.	2.1.1 Give examples of animals that take care of their eggs and young.
			2.1.2 Explain how animals take care of their eggs and young.
			2.1.3 Explain why animals take care of their eggs and young.
5		2.2 Understanding that different plants have their own ways to ensure the survival of their species.	2.2.1 State various ways plants disperse their seeds and fruits.
			2.2.2 Explain why plants need to disperse seeds or fruits.
			2.2.3 Give examples of plant that disperse seeds and fruits by water.
			2.2.4 Give examples of plant that disperse seeds and fruits by wind.
			2.2.5 Give examples of plant that disperse seeds and fruits by animals.
			2.2.6 Give examples of plant that disperse seeds and fruits by explosive mechanism.
			2.2.7 Relate characteristics of seeds and fruits to the ways they are dispersed.
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7		2.3 Realising the importance of survival of the species.	2.3.1 Predict what will happen if some species of animals or plants do not survive.
8	3. Food Chain and Food chains.	3.1 Understanding food chains.	3.1.1 Identify animals and the food they eat.
			3.1.2 Classify animals into herbivore, carnivore and omnivore.
			3.1.3 Construct food chain.
			3.1.4 identify producer.
			3.1.5 identify consumer.

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9		3.2 Synthesizing food chains to construct food web.	3.2.1 Construct a food web.
10			3.2.2 Construct food webs of different habitats. 3.2.3 Predict what will happen if there is a change in population of a certain species in a food web. 3.2.4 Explain what will happen to a certain species of animals if they eat only one type of food.
THEME : INVESTIGATING FORCE AND ENERGY			
11	1. Energy.	1.1 Understanding the uses of energy.	1.1.1 Explain why energy is needed. 1.1.2 Give examples where and when energy is used. 1.1.3 State various sources of energy.
12		1.2 Understanding that energy can be transformed from one form to another.	1.2.1 State the various forms of energy. 1.2.2 State that energy can be transformed. 1.2.3 Give examples of appliances that make use of energy transformation.
13		1.3 Understanding renewable and non-renewable energy.	1.3.1 State what renewable energy is. 1.3.2 State what non-renewable energy is. 1.3.3 List renewable energy resources. 1.3.4 List non-renewable energy resources.
14			1.3.5 Explain why we need to use energy wisely. 1.3.6 Explain why renewable energy is better than non-renewable energy. 1.3.7 Give examples on how to save energy. 1.3.8 Practise saving energy.
15	2. Electricity	2.1 Knowing the sources of electricity.	2.1.1 State the sources of electricity.
16		2.2 Understanding a series circuit and a parallel circuit.	2.2.1 Identify the symbols of various components in a simple electric circuit. 2.2.2 Draw circuit diagrams. 2.2.3 Identify the difference in the arrangement of bulbs in series and parallel circuits.
17			2.2.4 Build a series circuit. 2.2.5 Build a parallel circuit. 2.2.6 Compare the brightness of the bulbs in a series and a parallel circuit. 2.2.7 Compare the effect on the bulbs when various switches in a series circuit and a parallel circuit are off.
18		2.3 Understanding the safety precautions to be taken when handling electrical appliances.	2.3.1 Describe the danger of mishandling electrical appliances. 2.3.2 Explain the safety precautions to be taken when using electrical appliances.

SEMESTER 2

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1	3. Light.	3.1 Understanding that light travels in a straight line.	3.1.1 State that light travels in a straight line. 3.1.2 Give examples to verify that light travels in a straight line. 3.1.3 Describe how shadow is formed. 3.1.4 Design a fair test to find out what cause the size of a shadow to change by deciding what to keep the same, what to change and what to observe. 3.1.5 Design a fair test to find out what factors cause the shape of a shadow to change by deciding what to keep the same, what to change and what to observe.
2		3.2 Understanding that light can be reflected.	3.2.1 State that light can be reflected. 3.2.2 Draw ray diagrams to show reflection of light. 3.2.3 Give examples of uses of reflection of light in everyday life.
3	4. Heat.	4.1 Understanding that temperature is of indicator of degree of hotness.	4.1.1 State that when a substance gains heat it will become warmer. 4.1.2 State that when a substance loses heat it will become cooler. 4.1.3 Measure temperature using the correct technique. 4.1.4 State the metric unit for temperature.
4			4.1.5 State that temperature of an object or material increases as it gains heat. 4.1.6 State that temperature of an object or material decreases as it loses heat. 4.1.7 Conclude that the temperatures is an indicator to measure hotness.
5		4.2 Understanding the effects of heat on matter.	4.2.1 State that matter expands when heated. 4.2.2 State that matter contracts when cooled. 4.1.3 Give examples of the application of the principle of expansion and contraction in everyday life.
THEME: INVESTIGATING MATERIALS			
6	1. States of Matter	1.1 Understanding that matter exist in the form of solid, liquid or gas.	1.1.1 Classify objects and materials into three states of matter. 1.1.2 State the properties of solid. 1.1.3 State the properties of liquid.
7			1.1.4 State that some liquids flow faster than others. 1.1.5 State the properties of gas.
8		1.2 Understanding that matter can change from one state to another.	1.2.1 State that water can change its state. 1.2.2 Conclude that water can exist in any of the three states of matter. 1.2.3 Identify the processes involved when a matter changer from one state to another. 1.2.4 Identify factors that affect the rate of evaporation of water.

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9		1.3 Understanding the water cycle.	1.3.1 Describe how clouds are formed. 1.3.2 Describe how rain is formed. 1.3.3 Explain how water is circulated in the environment. 1.3.4 Explain the importance of water cycle.	
10		1.4 Appreciating the importance of water resources.	1.4.1 Give reasons why we need to keep our water resources clean. 1.4.2 Describe ways to keep our water resources clean.	
11	2. Acid and Alkali.	2.1 Understanding the properties of acidic, alkaline and neutral substances.	2.1.1 Identify acidic, alkaline and neutral substances using litmus paper. 2.1.2 Identify the taste of acidic and alkaline food. 2.1.3 Conclude the properties of acidic, alkaline and neutral substances.	
THEME: INVESTIGATING THE EARTH AND THE UNIVERSE				
12	1. Constellation.	1.1 Understanding the constellation.	1.1.1 State what constellation is. 1.1.2 Identify constellations. 1.1.3 State the importance of constellations.	
13	2. The Earth, The Moon and The Sun.	2.1 Understanding the movements of the Earth, the Moon and the Sun.	2.1.1 State that the Earth rotates on its axis. 2.1.2 State that the Earth rotates and at the same time moves round the Sun. 2.1.3 State that the Moon rotates on its axis. 2.1.4 State that the Moon rotates and at the same time moves round the Earth.	
14			2.1.5 State that the Moon and the Earth move round the Sun at the same time. 2.1.6 Describe the changes in length and position of the shadow throughout the day. 2.1.7 Conclude that the Earth rotates on its axis from west to east.	
15			2.2 Understanding the occurrence of day and night.	2.2.1 State that it is day time for the part of the Earth facing the Sun. 2.2.2 State it is night time for the part of the Earth facing away from the Sun. 2.2.3 Explain that day and night occur due to the rotation of the Earth on its axis.
16			2.3 Understanding the phases of the Moon.	2.3.1 State that the Moon does not emit light. 2.3.2 Explain that the Moon appears bright when it reflects sunlight. 2.3.3 Describe the phases of the Moon.
THEME : INVESTIGATING TECHNOLOGY				
17	1. Strength and Stability	1.1 Knowing the shapes of objects in structures.	1.1.1 State the shapes of objects. 1.1.2 Identify shapes in structure.	
18		1.2 Understanding the strength and stability of a structure.	1.2.1 Identify shapes of objects that are stable. 1.2.2 Identify the factors that affect stability of objects. 1.2.3 Explain how base area affects stability.	
19			1.2.4 Explain how height affects stability. 1.2.5 Identify the factors that affect the strength of a structure. 1.2.6 design a model that is strong and stable.	