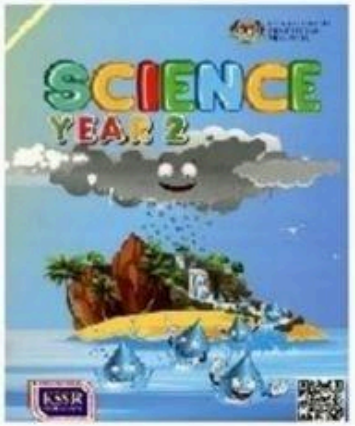
RANCANGAN PENGAJARAN TAHUNAN

2023/2024

KEMENTERIAN PENDIDIKAN



SCIENCE (DLP)

YEAR TWO

SCHOOL NAME : _____

SCHOOL ADDRESS : _____

TEACHER'S NAME : _____

WEEK : 1	THEME : INQUIRY IN SCIENCE			TOPIC : 1.0 SCIENTIFIC SKILLS
CONTENT STANDARD	LEARNING STANDARD	PERFORMANCE STANDARD		NOTES
		PL	DESCRIPTOR	
1.1 Science Process Skills	Pupils are able to: 1.1.1 Observe	1	State all the senses involved in making the observations on the phenomena or changes that occur.	Suggested activities: Carry out activities that can lead to the acquire skills such as: (i) Observing the bulb in the circuit. (ii) Observing the changes of materials when immersed in water.
		2	Describe all the senses used in making the observations on the phenomena or changes that occur.	
		3	Use all the senses involved in making the observations on the phenomena or changes that occur.	
		4	Use all the senses involved and appropriate tools if necesesary in making qualitative observations to explain the phenomena or changes that occur.	
		5	Use all the senses involved and appropriate tools if necesesary in making qualitative and quantitative observations to explain the phenomena or changes that occur.	
		6	Use all the senses involved and appropriate tools if necesesary in making qualitative and quantitative observations to explain the phenomena or changes that occur systematically.	

WEEK : 2	THEME : INQUIRY IN SCIENCE	TOPIC : 1.0 SCIENTIFIC SKILLS		
CONTENT STANDARD	**LEARNING STANDARD**	**PERFORMANCE STANDARD**		**NOTES**
		PERFORMANCE LEVEL	**DESCRIPTOR**	
	Pupils are able to: 1.1.2 Classify	1	Use all the senses involved and appropriate tools if necesesary in making qualitative and quantitative observations to explain the phenomena or changes that occur systematically.	Suggested activities: Carry out activities that can lead to the acquire skills such as: (i) Classify animals according to the way they reproduce. (ii) Classify objects according to their ability to light up bulb in a circuit.
		2	Describe the characteristics of objects or phenomena by stating the similarities and differences	
		3	Separate and group the objects or phenomena according to its similarities and differences.	
		4	Separate and group the objects or phenomena by stating its similarities and differences.	
		5	Separate and group the objects or phenomena according to its similarities and differences and able to use other characteristics to separate/isolate and group.	
		6	Separate and group the objects or phenomena according to its similarities and differences until to the final stage by stating the characterisctics used.	

WEEK : 3	THEME : INQUIRY IN SCIENCE	TOPIC : 1.0 SCIENTIFIC SKILLS		
CONTENT STANDARD	**LEARNING STANDARD**	**PERFORMANCE STANDARD**		**NOTES**
		PERFORMANCE LEVEL	**DESCRIPTOR**	
	Pupils are able to: 1.1.3 Measure and use numbers	1	Choose appropriate tools to measure a quantity.	Suggested activities: Carry out activities that can lead to the acquire skills such as: (i) Record the changes of height of a growing plant. (ii) Measure own body weight and peer's.
		2	Describe the use of tools and appropriate ways to measure a quantity.	
		3	Measure using appropriate tools and standard unit with correct techniques.	
		4	Measure using appropriate tools and standard unit with correct techniques and record in a table.	
		5	Make justification on the appropriate tools and standard units used in the activity.	
		6	Demonstrate how to measure using tools, standard units with correct techniques, record systematically, creatively and inovatively in a	

			table.	

WEEK : 4	THEME : INQUIRY IN SCIENCE	TOPIC : 1.0 SCIENTIFIC SKILLS		
CONTENT STANDARD	**LEARNING STANDARD**	**PERFORMANCE STANDARD**		**NOTES**
		PERFORMANCE LEVEL	**DESCRIPTOR**	
	Pupils are able to: 1.1.4 Communicate	1	State the information gathered.	Suggested activities: Carry out activities that can lead to the acquire skills such as: (i) Design a poster on how to keep the cleanliness of river. (ii) Record the number of leaves on a growing plant using a suitable form.
		2	Record information or ideas in any forms.	
		3	Record information or ideas in suitable form.	
		4	Record information or ideas in suitable form and present it systematically.	
		5	Record information or ideas in more than one suitable form and present it systematically.	
		6	Produce a creative and innovative presentation based on the information or ideas recorded systematically and able to give feedback.	

<table>
<tr><th colspan="2">WEEK : 5</th><th colspan="2">THEME : INQUIRY IN SCIENCE</th><th colspan="2">TOPIC : 1.0 SCIENTIFIC SKILLS</th></tr>
<tr><th rowspan="2">CONTENT STANDARD</th><th rowspan="2">LEARNING STANDARD</th><th colspan="2">PERFORMANCE STANDARD</th><th rowspan="2">NOTES</th></tr>
<tr><th></th><th>DESCRIPTOR</th></tr>
<tr><td rowspan="6">1.2 Manipulative Skills</td><td rowspan="6">Pupils are able to:
1.2.1 Use and handle science apparatus and substances correctly.
1.2.2 Handle specimens correctly and carefully.
1.2.3 Sketch specimens, apparatus and science
1.2.4 substances correctly.
1.2.5 Clean science apparatus correctly.
Store science apparatus and substances correctly and safely.</td><td>1</td><td>List the apparatus, science substances and specimens required for an activity.</td><td rowspan="6">Suggested activities:
Assessments are carried out during pupils' learning activities such as:
(i) Germinating seeds.
(ii) Dissolving sugar in water</td></tr>
<tr><td>2</td><td>Describe the use of apparatus, science substances and specimens required for an activity.</td></tr>
<tr><td>3</td><td>Using and handling apparatus, science substances and specimens required for an activity with the correct method.</td></tr>
<tr><td>4</td><td>Using, handling, sketching, cleaning and storing the apparatus, science substances and specimens used in an activity with the correct method.</td></tr>
<tr><td>5</td><td>Using, handling, sketching, cleaning and storing the apparatus, science substances and specimens used in an activity with the correct methods, systematically and sparingly.</td></tr>
<tr><td>6</td><td>Using, handling, sketching, cleaning and storing the apparatus, science substances and specimens used in</td></tr>
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			an activity with the correct methods, systematically, sparingly and be an example to others.	

CUTI PERTENGAHAN PENGGAL 1, SESI 2023/2024

KUMPULAN A: 21.04.2023 - 29.04.2023, KUMPULAN B: 22.04.2023 - 30.04.2023

WEEK : 6	**THEME : INQUIRY IN SCIENCE**	**TOPIC : 1.0 SCIENTIFIC SKILLS**

CONTENT STANDARD	**LEARNING STANDARD**	**PERFORMANCE STANDARD**		**NOTES**
			DESCRIPTOR	
1.2 Manipulative Skills	Pupils are able to: 1.2.1 Use and handle science apparatus and substances correctly. 1.2.2 Handle specimens correctly and carefully. 1.2.3 Sketch specimens, apparatus and science substances correctly. 1.2.4 Clean science apparatus correctly. 1.2.5 Store science apparatus and substances correctly and safely.	1	List the apparatus, science substances and specimens required for an activity.	Suggested activities: Assessments are carried out during pupils' learning activities such as: (i) Germinating seeds. (ii) Dissolving sugar in water
		2	Describe the use of apparatus, science substances and specimens required for an activity.	
		3	Using and handling apparatus, science substances and specimens required for an activity with the correct method.	
		4	Using, handling, sketching, cleaning and storing the apparatus, science substances and specimens used in an activity with the correct method.	

		5	Using, handling, sketching, cleaning and storing the apparatus, science substances and specimens used in an activity with the correct methods, systematically and sparingly.	
		6	Using, handling, sketching, cleaning and storing the apparatus, science substances and specimens used in an activity with the correct methods, systematically, sparingly and be an example to others.	

WEEK : 7-9	THEME : INQUIRY IN SCIENCE	TOPIC : 2.0 SCIENCE ROOM RULES		
CONTENT STANDARD	**LEARNING STANDARD**	**PERFORMANCE STANDARD**		**NOTES**
		PERFORMANCE LEVEL	**DESCRIPTOR**	
2.1 Science room rules	Pupils are able to: 2.1.1 Adhere to science room rules	1	State science room rules.	Suggested activities: Assessments are carried out through observations before, during and after using the science room.
		2	Explain science room rules.	
		3	Apply science room rules.	
		4	Provide reasoning on the importance to adhere science room rules.	

		5	Generate ideas of action that need to be taken if there is any violation of rules.	
		6	Practise compliance concept of science room rules in daily life as a culture.	
CUTI PENGGAL 1, SESI 2023/2024 **KUMPULAN A: 26.05.2023 - 03.06.2023, KUMPULAN B: 22.04.2023 - 30.04.2023**				

WEEK : 10-13	**THEME : LIFE SCIENCE**	**TOPIC : 3.0 HUMAN**		
CONTENT STANDARD	**LEARNING STANDARD**	**PERFORMANCE STANDARD**		**NOTES**
		PERFORMANCE LEVEL	**DESCRIPTOR**	
3.1 Reproduction and growth in human	Pupils are able to: 3.1.1 State how humans reproduce. 3.1.2 Describe changes in size, height and weight in an individual since birth. 3.1.3 Make generalization that growths among individuals are different by carrying out activities. 3.1.4 Describe that offsprings	1	State that human reproduce by giving birth.	Suggested activities: Discussion on changes of an individual based on pictures from infant to adult in terms of increase in: (i) size; (ii) height; and (iii) weight. Use pictures to match the offspring with the mother / father / family
		2	Describe changes in an individual since birth.	
		3	Explain through examples the features that offsprings inherited from their parents or ancestors.	

	3.1.5 inherit features from their parents or ancestors. Give examples of features inherited by the offsprings from their parents or ancestors such as skin colour, iris colour and hair type.	4	Make generalization that inherited features in an individual are from ancestors based on family tree.	members. Compare and contrast the size of palms, soles, height and weight among classmates.
		5	Conclude that the growth of individuals of the same age are different.	

CONTENT STANDARD	LEARNING STANDARD	PERFORMANCE STANDARD		NOTES
		PERFORMANCE LEVEL	DESCRIPTOR	

	3.1.6 Explain observations about growth and heredity using sketches, ICT, in written or verbal form.	6	Communicate creatively and innovatively to predict the features inherited by the offspring that can be seen in their parents.	Suggested activities: Display a picture of a man and a woman with clear features such as curly hair iris colour, skin colour, hair colour and height. Pupils make predictions about features that may be inherited by the couple's offspring and give explanations. Note: Discussion of heredity, family tree is not necessarily based on the pupil's own family.

WEEK : 14-17	**THEME : LIFE SCIENCE**	**TOPIC : 4.0 ANIMALS**	
		PERFORMANCE STANDARD	

CONTENT STANDARD	LEARNING STANDARD	PERFORMANCE LEVEL	DESCRIPTOR	NOTES
4.1 Reproduction and growth in animals	Pupils are able to: 4.1.1 State how animals reproduce. 4.1.2 Classify animals according to the way they reproduce. 4.1.3 Explain with examples animals that lay many eggs and animals that lay less egg. 4.1.4 Explain with examples animals that give birth to many young and animals that give birth to less young. 4.1.5 Record the changes in the animals' growth by observing their life cycles.	1	State animals that lay eggs and animals that give birth.	Suggested activities: Observe a video on animals' reproduction. Observe the life cycles of animals such as frog, butterfly, mosquito and cow. Match the pictures of the young with their parents.
		2	Classify animals according to the way they reproduce.	
		3	Make generalization the way animals reproduce in term of the number of eggs and young.	
		4	Interpret data on the changes in growth that occur in the life cycle of animals.	

CONTENT		PERFORMANCE STANDARD	

STANDARD	LEARNING STANDARD	PERFORMANCE LEVEL	DESCRIPTOR	NOTES
	4.1.6 Explain with examples young animals that look like their parents and animals which do not look like their parents.	5	Conclude from the observations that some animals look like their parents and some do not look like their parents.	
	4.1.7 Explain observations about reproduction and growth in animals using sketches, ICT, in written or verbal form.	6	Communicate creatively and innovatively to explain the various ways animals protect their eggs or care for their young and provide reasoning.	

WEEK : 18-19	THEME : LIFE SCIENCE	TOPIC : 5.0 PLANTS

CONTENT STANDARD	LEARNING STANDARD	PERFORMANCE STANDARD		NOTES
		PERFORMANCE LEVEL	DESCRIPTOR	
5.1 Growth of Plants	Pupils are able to: 5.1.1 State the importance of plants to humans and animals. 5.1.2 State the basic needs for the seeds to germinate. 5.1.3 Record changes in plant's growth by observing the actual seeds from germination stage. 5.1.4 Arrange in sequence the stages in a plant's growth. .	1	State examples the importance of plants to humans and animals.	Note: (i) growth in plant has several stages e.g. fruit, germination of seed, young plant, bear flowers, bear fruit in a coconut tree. (ii) soil or fertilizer provides nutrients to help growth of plants. (iii) disruption in plant growth stage will cause shortage in food sources (plants and animals)
		2	Describe that water, air and suitable temperature are required for germination of seeds.	
		3	Record changes in plant's growth such as the number of leaves, circumference of stem, size of leaf or height of plant by observing real plants.	
		4	Arrange in sequence the stages of a plant's growth and give explanation.	

WEEK : 20-21	THEME : LIFE SCIENCE	TOPIC : 5.0 PLANTS		
CONTENT STANDARD	LEARNING STANDARD	PERFORMANCE STANDARD		NOTES
		PERFORMANCE LEVEL	DESCRIPTOR	
	5.1.5 Conclude the basic needs for a plant's growth by carrying out investigations. 5.1.6 Explain observations about life process of plants using sketches, ICT, in written or verbal form.	5	Summarize that water, nutrients, air and sunlight are needed for a plant to grow.	
		6	Communicate about the prediction of what will happen to human or animals if the stages in plant's growth is disrupted.	
CUTI PENGGAL 2, SESI 2023/2024 **(KUMPULAN A: 25.08.2023 - 02.09.2023, KUMPULAN B: 26.08.2023 - 03.09.2023)**				

WEEK : 22-23	THEME : PHYSICAL SCIENCE	TOPIC : 6.0 LIGHT AND DARK

CONTENT STANDARD	LEARNING STANDARD	PERFORMANCE STANDARD		NOTES
		PERFORMANCE LEVEL	DESCRIPTOR	
6.1 Light and dark	Pupils are able to: 6.1.1 State sources of light. 6.1.2 Differentiate the activities carried out in light and dark situation. 6.1.3 Explain how shadow is formed by carrying out activities. 6.1.4 Compare and contrast the clarity of shadows when light is blocked by different objects by carrying out investigations. 6.1.5 Create a shadow game. 6.1.6 Explain observations about light and dark using sketches, ICT, in written or verbal form.	1	Identify the sources of light.	Suggested activities: Use a black box that consists of a few objects. Pupil picks an object from the box in light and dark situation. Differentiate the clarity of shadow (clear, less clear, no shadow) using different objects such as A4 paper, tracing paper, plastic and transparency film.
		2	Explain how shadow is formed.	
		3	Compare activities that are carried out in light and dark conditions.	
		4	Make conclusion about the sharpness of shadows formed.	
		5	Provide reasoning on the importance of light to human.	
		6	Create a shadow game and explain how the shadow is formed.	

WEEK : 24-27	THEME : PHYSICAL SCIENCE	TOPIC : 7.0 ELECTRIC

CONTENT STANDARD	LEARNING STANDARD	PERFORMANCE STANDARD		NOTES
		PERFORMANCE LEVEL	DESCRIPTOR	
7.1 Electric circuit	Pupils are able to: 7.1.1 Identify components in an electric circuit i.e. dry cell, bulb and switch. 7.1.2 Explain functions of the components in a complete electric circuit. 7.1.3 Build a complete electric circuit using dry cell, bulb, switch and connecting wires. 7.1.4 Predict why bulb does not light up in a circuit. 7.1.5 Record whether a bulb will light up when the switch is replaced with other objects or materials by carrying out investigations. 7.1.6 Make generalization of objects that can light up a bulb in a circuit are conductors and objects that cannot light up a bulb are insulators.	1	State components found in an electric circuit.	Suggested activities: Testing ability of bulb to light up using various objects or materials such as pencil, nails, eraser, coins, paper clips and lemon juice. From these activities, pupils make generalization about conductors and insulators. Note: Give opportunities for pupils to use the motor, buzzer and others besides the bulb.
		2	Explain functions of the components in an electric circuit.	
		3	Build a complete electric circuit with components provided.	
		4	Provide reasoning when bulbs do not light up in a circuit.	
		5	Summarize that objects which can light up bulb in a circuit are conductors and objects that cannot light up a bulb are insulators.	

CONTENT STANDARD	LEARNING STANDARD	PERFORMANCE STANDARD		NOTES
		PERFORMANCE LEVEL	DESCRIPTOR	
	7.1.7 Explain observations about electric circuit using sketches, ICT, in written or verbal form.	6	Produce and present a function circuit using other objects to replace the bulb.	

WEEK : 28-31	THEME : MATERIAL SCIENCE	TOPIC : 8.0 MIXTURE

CONTENT STANDARD	LEARNING STANDARD	PERFORMANCE STANDARD		NOTES
		PERFORMANCE LEVEL	DESCRIPTOR	
8.1 Mixture	Pupils are able to: 8.1.1 Describe methods to separate a mixture of various materials or objects. 8.1.2 Provide reasoning about the method used to separate a mixture of various materials or objects. 8.1.3 Identify materials that can dissolve and cannot dissolve in water by carrying out investigations. 8.1.4 Summarize how materials can be dissolved more quickly by carrying out investigations. 8.1.5 Explain observations about mixtures using sketches, ICT, in written or verbal form.	1	State examples of materials which dissolve and do not dissolve in water.	Note: Examples of mixtures such as peanuts, dried leaves and flour. Examples of methods to separate mixtures such as using sieve or magnet. Examples of mixture such as sand or stone of various sizes, sand and salt and limestone mixed with water are given as problems for pupils to solve.
		2	Describe methods to separate a mixture.	
		3	Separate a mixture of various materials or objects.	
		4	Explain through an example why the method is used to separate a mixture.	
		5	Summarize how materials can be dissolved more quickly.	
		6	Solve problem by carry out a project to separate a mixture to obtain the original materials in a faster and more effective way.	

WEEK : 32-33	THEME : EARTH AND SPACE	TOPIC : 9.0 EARTH

CONTENT STANDARD	LEARNING STANDARD	PERFORMANCE STANDARD		NOTES
		PERFORMANCE LEVEL	DESCRIPTOR	
9.1 Water	Pupils are able to: 9.1.1 State natural sources of water such as rain, rivers, lakes, seas and springs. 9.1.2 State direction of water flow by carrying out activities. 9.1.3 Make generalisation on natural direction of water flow such as in rivers and waterfalls through observation using various media. 9.1.4 Arrange in sequence the natural water cycle. 9.1.5 Explain observations about water cycle using sketches, ICT, in written or verbal form.	1	List natural sources of water.	Suggested activities: Discussion on water flow such as puddles, bathing water and flood based on experience and observation on the environment. Observations on movement of water in a tray when one end is slightly tilted. Note: Water cycle is stated as water from the river or sea turning into water vapour. Water vapour then form clouds. Clouds then produce rain which flows back to rivers or seas.
		2	Describe the direction of water flow from high to low place.	
		3	Make generalisation the natural direction of water flow on earth.	
		4	Arrange in sequence and label the natural water cycle.	
		5	Generate ideas on environmental effect if the water flow is interrupted.	
		6	Communicate on the role of human in maintaining clean source of water and water flow.	

WEEK : 34-36	THEME : EARTH AND SPACE	TOPIC : 9.0 EARTH

CONTENT STANDARD	LEARNING STANDARD	PERFORMANCE STANDARD		NOTES
		PERFORMANCE LEVEL	DESCRIPTOR	
9.2 Air	Pupils are able to: 9.2.1 State that air is around us. 9.2.2 State that air consists of gases such as oxygen and carbon dioxide. 9.2.3 Describe that moving air is wind. 9.2.4 Generate ideas on the effects of air movement in everyday life. 9.2.5 Create a tool or model by applying knowledge that demonstrates usage of air movement. 9.2.6 Explain observations about air using sketches, ICT, in written or verbal form.	1	State living things need air to breathe.	Suggested activities: A video showing living things in water, in the soil and the surroundings. Note: Examples of model such as windmill and sailboat
		2	Give example of gases in the air.	
		3	Describe that air cannot be seen but can be felt when it moves.	
		4	Explain through example that air is everywhere including in water and soil.	
		5	Generate ideas on the advantages and disadvantages of moving air.	
		6	Create a model by applying knowledge of moving air.	

CUTI PENGGAL 3, SESI 2023/2024

(KUMPULAN A: 15.12.2023 - 01.01.2024, KUMPULAN B: 16.12.2023 - 01.01.2024)

<table>
<tr><th>WEEK : 37-39</th><th colspan="3">THEME : TECHNOLOGY AND SUSTAINABILITY OF LIFE</th><th>TOPIC : 10.0 TECHNOLOGY</th></tr>
<tr><th rowspan="2">CONTENT STANDARD</th><th rowspan="2">LEARNING STANDARD</th><th colspan="2">PERFORMANCE STANDARD</th><th rowspan="2">NOTES</th></tr>
<tr><th>PERFORMANCE LEVEL</th><th>DESCRIPTOR</th></tr>
<tr><td rowspan="6">10. Building set 1</td><td rowspan="6">Pupils are able to:

10.1.1 Choose a structure to build from the building set.

10.1.2 Identify the building components according to the illustrated manual.

10.1.3 Assemble the building components according to the illustrated manual.

10.1.4 Create a new structure that is not in the illustrated manual.

10.1.5 Disassemble the built structure in sequence and store the components into a storage container.</td><td>1</td><td>Choose the components needed for the chosen structure to build.</td><td rowspan="6">Note:

Construction set is a set of components that can build several models and have illustrated manual.

Able to describe the function of newly built structure.</td></tr>
<tr><td>2</td><td>Build the structure according to the illustrated manual.</td></tr>
<tr><td>3</td><td>Disassemble the built structure in sequence and store the components into a storage container properly.</td></tr>
<tr><td>4</td><td>Communicate to explain the built structure.</td></tr>
<tr><td>5</td><td>Choose the components needed for the chosen structure to build.</td></tr>
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	10.1.6 Explain observations about built structure using sketches, ICT, in written or verbal form.	6	Build the structure according to the illustrated manual.	

40	ULANGKAJI
41	PENTAKSIRAN AKHIR TAHUN
42	PENGURUSAN AKHIR TAHUN
CUTI AKHIR PERSEKOLAHAN SESI 2023/2024 (KUMPULAN A: 09.02.2024 - 09.03.2024, KUMPULAN B: 10.02.2024 - 10.03.2024)	