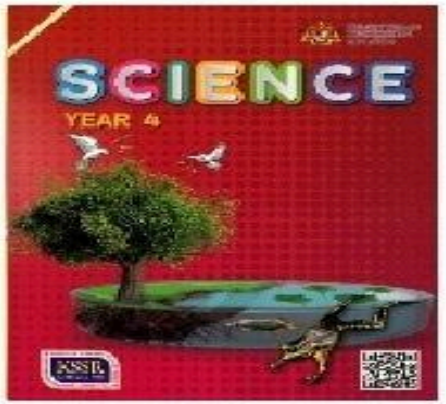
KEMENTERIAN PENDIDIKAN MALAYSIA

RANCANGAN PENGAJARAN TAHUNAN

2022/2023



SCIENCE (DLP)

YEAR FOUR

SCHOOL BADGE

SCHOOL NAME : _____

SCHOOL ADDRESS : _____

TEACHER'S NAME : _____

<table>
<tr><th colspan="2">WEEK : 1-5</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">REMARKS</th></tr>
<tr><th>PERFORMANCE LEVEL</th><th>DESCRIPTOR</th></tr>
<tr><td rowspan="2">1.1 Science Process Skills</td><td rowspan="2">Pupils are able to:

1.1.1 Observe by using all the senses involved and tools if necessary to make qualitative observations to explain the phenomena or changes that occur.
1.1.2 Classify by comparing or identifying similarities and differences based on common characteristics.
1.1.3 Measure and use numbers by using appropriate tools and standard units with correct techniques.
1.1.4 Make inferences by stating the initial conclusion or by giving reasonable explanations for the observation made using the information gathered.</td><td>1</td><td>Recall the science process skills.</td><td rowspan="2">Suggested activities:

Carry out investigations that lead to acquiring the science process skills such as:
(i) Experimenting to determine the factors that affect the size and shape of shadows.
(ii) Making conclusion on parts of plants that respond to stimuli.</td></tr>
<tr><td>2</td><td>Describe the science process skills.</td></tr>
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CONTENT STANDARD	LEARNING STANDARD	PERFORMANCE STANDARD		REMARKS
		PERFORMANCE LEVEL	DESCRIPTOR	
	Pupils are able to: 1.1.5 Predict by making reasonable assumptions about an event or phenomenon based on observations, prior experiences or data. 1.1.6 Communicate by recording information or ideas in suitable forms and presenting them 1.1.7 systematically. Use space - time relationship by arranging occurrences of phenomenon or event in a 1.1.8 chronological order based on time. Interpret data by selecting relevant ideas about an object, event or trend found in the data to make an explanation.	3	Apply the science process skills.	
		4	Analyse the science process skills to solve problems or to perform a task.	

CONTENT STANDARD	LEARNING STANDARD	PERFORMANCE STANDARD		REMARKS
		PERFORMANCE LEVEL	DESCRIPTOR	
	Pupils are able to: 1.1.9 Define operationally by describing an interpretation of a task carried out and observed in a situation according to determined aspects. 1.1.10 Control variables by determining the responding and constant variables after the manipulated variable in the investigation have been determined. 1.1.11 Make a hypothesis by making a general statement that can be tested based on the relationship between the variables in the 1.1.12 investigation. Experiment by using the basic science process skills to collect and interpret data, summarise to prove the hypothesis and write a report.	5	Evaluate the science process skills to solve a problem or to perform a task.	
		6	Design an experiment to solve a problem systematically and be responsible to oneself, peers and the environment.	

WEEK : 6-7	THEME : LIFE SCIENCE	TOPIC : 2.0 HUMAN	
CONTENT STANDARD	**LEARNING STANDARD**	**PERFORMANCE STANDARD**	**REMARKS**
		PERFORMANCE LEVEL / **DESCRIPTOR**	
2.1 Breathing Process	Pupils are able to: 2.1.1 Identify the organs involved in the breathing process. 2.1.2 Describe the breathing process in terms of air passage and exchange of gases in the lungs through observation by using various media. 2.1.3 Differentiate the content of oxygen and carbon dioxide during inhalation and exhalation.	1 — Label the organs involved during the breathing process. 2 — Explain the breathing process in terms of air passage. 3 — Make generalisation on the chest movement during the breathing process. 4 — Differentiate the content of oxygen and carbon dioxide during the breathing process.	Notes: Inhaled air contains more oxygen compared to exhaled air. Exhaled air contains more carbon dioxide compared to inhaled air. Rate of breathing can be observed through chest movement in one minute.

		5	Conclude that the rate of breathing depends on the types of activities.	

WEEK : 7-8	THEME : LIFE SCIENCE	TOPIC : 2.0 HUMAN		
CONTENT STANDARD	**LEARNING STANDARD**	**PERFORMANCE STANDARD**		**REMARKS**
		PERFORMANCE LEVEL	**DESCRIPTOR**	
	Pupils are able to: 2.1.4 Describe the chest movement during inhalation and exhalation by carrying out activities. 2.1.5 Make generalisation that the rate of breathing depends on the types of activities carried out. 2.1.6 Explain the observations on human breathing through written or verbal forms, sketches or ICT in a creative way.	6	Communicate creatively and innovatively on situations which give good and bad effects on human breathing and provide suggestions to keep the lungs healthy	Notes: Situations that affect breathing such as being in recreational parks, polluted air, congested areas, and being around smokers.

<table>
<tr><th colspan="2">WEEK : 9</th><th colspan="2">THEME : LIFE SCIENCE</th><th colspan="2">TOPIC : 2.0 HUMAN</th></tr>
<tr><th rowspan="2">CONTENT STANDARD</th><th rowspan="2">LEARNING STANDARD</th><th colspan="2">PERFORMANCE STANDARD</th><th rowspan="2">REMARKS</th></tr>
<tr><th>PERFORMANCE LEVEL</th><th>DESCRIPTOR</th></tr>
<tr><td rowspan="5">2.2 Excretion and Defecation</td><td rowspan="5">Pupils are able to:

2.2.1 State the meaning of excretion and defecation.

2.2.2 Identify the organs and products of excretion.

2.2.3 Make inferences on the importance to rid products of excretion and defecation.

2.2.4 Explain the observations on human excretion and defecation through written or verbal forms, sketches or ICT in a creative way.</td><td>1</td><td>State the meaning of defecation.</td><td rowspan="5">Notes:

Organs and products of excretion are:
(i) Kidneys excrete urine.
(ii) Skin excretes sweat.
(iii) Lungs release carbon dioxide and water vapour.</td></tr>
<tr><td>2</td><td>List the products of excretion and defecation.</td></tr>
<tr><td>3</td><td>Describe excretion and defecation.</td></tr>
<tr><td>4</td><td>Match the organs with the products of excretion using graphic organisers.</td></tr>
<tr><td>5</td><td>Provide reasoning on the importance of excretion and defecation in human.</td></tr>
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		6	Communicate creatively and innovatively good practices to ensure excretion and defecation are not disrupted.	

WEEK : 10-11	THEME : LIFE SCIENCE	TOPIC : 2.0 HUMAN

CONTENT STANDARD	LEARNING STANDARD	PERFORMANCE STANDARD		REMARKS
		PERFORMANCE LEVEL	DESCRIPTOR	
2.3 Humans Respond to Stimuli	Pupils are able to: 2.3.1 State that humans respond when the sensory organs receive stimuli. 2.3.2 Explain with examples humans respond to stimuli in daily life. 2.3.3 Make inferences on the importance of human response to stimuli. 2.3.4 Explain habits that disrupt the process of human response to stimuli. 2.3.5 Explain the observations on human response to	1	State the sensory organs of human.	Notes: Examples of responses to stimuli: (i) Eyes close as light is shone directly at them. (ii) Hand moves away spontaneously as it touches hot or sharp objects. (iii) Body shivers in extreme cold.
		2	State that humans respond to stimuli.	
		3	Match a stimulus to its response(s) in a situation.	
		4	Give examples on how humans respond to stimuli.	
		5	Summarise the importance of humans response to stimuli.	

	stimuli through written or verbal forms, sketches or ICT in a creative way.	6	Communicate creatively and innovatively concerning habits that should be avoided to prevent damage to the sensory organs and present the findings.	

CUTI PENGGAL 1, SESI 2022/2023
(KUMPULAN A: 03.06.2022 - 11.06.2022, KUMPULAN B: 04.06.2022 - 12.06.2022)

WEEK : 12	**THEME : LIFE SCIENCE**	**TOPIC : 3.0 ANIMAL**

CONTENT STANDARD	**LEARNING STANDARD**	**PERFORMANCE STANDARD**		**REMARKS**
		PERFORMANCE LEVEL	**DESCRIPTOR**	
3.1 Breathing Organs of Animals	Pupils are able to : 3.1.1 Identify the breathing organs of animals. 3.1.2 Classify animals according to their 3.1.3 breathing organs. Make generalisation that some animals have 3.1.4 more than one breathing organ. Explain the observations about the breathing organs of animals through written or verbal forms,	1	Label the breathing organs of animals.	Notes: Examples of animals' breathing organs: (i) Lungs: cat, bird, crocodile, frog and whale. (ii) Gills: fish, tadpole, crab and prawn. (iii) Moist skin: frog and worm. (iv) Spiracle: cockroach, grasshopper, butterfly and caterpillar.
		2	List the examples of vertebrates and invertebrates.	

	sketches or ICT in a creative way.			
		3	Give examples of specific charateristics for each class of vertebrates.	

WEEK : 13	THEME : LIFE SCIENCE	TOPIC : 3.0 ANIMAL		
CONTENT STANDARD	**LEARNING STANDARD**	**PERFORMANCE STANDARD**		**REMARKS**
		PERFORMANCE LEVEL	**DESCRIPTOR**	
3.2 Vertebrates	Pupils are able to: 3.2.1 State the meaning of vertebrates and invertebrates. 3.2.2 Give examples of vertebrates and invertebrates. 3.2.3 Classify vertebrates based on specific characteristics for mammals, reptiles, 3.2.4 amphibians, birds and fish. Explain the observations about vertebrates	4	Classify vertebrates based on their specific charateristics.	Notes: Classes of vertebrates (animals with backbone) consist of mammals, reptiles, amphibians, birds and fish.
		5	Summarise that some animals have more than one breathing organ.	

	through written or verbal forms, sketches or ICT in a creative way.	6	Communicate creatively and innovatively on the breathing organs of animals and classify vertebrates and their specific charateristics to each class and present the findings.	

WEEK : 14-15	THEME : LIFE SCIENCE	4.0 PLANT		
CONTENT STANDARD	**LEARNING STANDARD**	**PERFORMANCE STANDARD**		**REMARKS**
		PERFORMANCE LEVEL	**DESCRIPTOR**	
4.1 Plants respond to stimuli	Pupils are able to: 4.1.1 State that plants respond to stimuli through observation using various media. 4.1.2 Relate parts of plants that respond to different types of stimuli. 4.1.3 Conclude that parts of plants respond to stimuli by carrying out investigations. 4.1.4 Explain the observations on responses of plants to	1	State parts of plants that respond to stimuli.	Notes: Parts of plants that respond to stimuli such as: (i) Roots respond to water. (ii) Roots respond to gravity. (iii) Shoots respond to light. (iv) Leaves of some plants respond to touch.
		2	Describe the process of photosynthesis.	

	stimuli through written or verbal forms, sketches or ICT in a creative way.	3	Explain with examples the responses of parts of plants to stimuli.	

WEEK : 16-17	THEME : LIFE SCIENCE	4.0 PLANT		
CONTENT STANDARD	**LEARNING STANDARD**	**PERFORMANCE STANDARD**		**REMARKS**
		PERFORMANCE LEVEL	**DESCRIPTOR**	
4.2 Photosynthesis	Pupils are able to: 4.2.1 State the meaning of photosynthesis. 4.2.2 List the needs of plants for the process of photosynthesis. 4.2.3 State the products of photosynthesis through observations using various media. 4.2.4 Provide reasoning on the importance of	4	Provide reasoning on the importance of photosynthesis for living things.	Notes: Photosynthesis is a process where plants produce their own food. Products of photosynthesis are starch and oxygen. Suggested activity: Simulate the process of photosynthesis using ICT.
		5	Test the hypothesis that plants respond to stimuli.	

	photosynthesis for living things. 4.2.5 Explain the observations on photosynthesis through written or verbal forms, sketches or ICT in a creative way.	6	Communicate creatively and innovatively on the importance of plants' responses that help photosynthesis.	

WEEK : 18-19	THEME : PHYSICAL SCIENCE		5.0 PROPERTIES OF LIGHT	
CONTENT STANDARD	**LEARNING STANDARD**	**PERFORMANCE STANDARD**		**REMARKS**
		PERFORMANCE LEVEL	**DESCRIPTOR**	
5.1 Light Travels In a Straight Line	Pupils are able to: 5.1.1 State that light travels in a straight line by carrying out activities. 5.1.2 Compare and contrast the shadows formed when light is blocked by transparent, translucent and opaque objects by carrying out activities. Carry out experiment to	1	State that light travels in a straight line, can be reflected and refracted.	

	5.1.3 determine the factors that affect the size and shape of the shadow. 5.1.4 Explain the observations that light travels in a straight line through written or verbal forms, sketches or ICT in a creative way.	2	Sketch a ray diagram to show reflection of light from a mirror.	

WEEK : 20-21	**THEME : PHYSICAL SCIENCE**	**5.0 PROPERTIES OF LIGHT**		
CONTENT STANDARD	**LEARNING STANDARD**	**PERFORMANCE STANDARD**		**REMARKS**
		PERFORMANCE LEVEL	**DESCRIPTOR**	
5.2 Reflection of Light	Pupils are able to:	3	Give examples of situations in daily life that show light travels in a straight line, can be reflected and refracted.	Notes: Applications of reflection of light in daily life such as periscope, mirror and others.

	5.2.1 State that light can be reflected by carrying out activities. 5.2.2 Describe the uses of reflection of light in daily life. 5.2.3 Draw a ray diagram to show the reflection of light from a mirror.			
	5.2.4 Explain the observations of reflection of light through written or verbal forms, sketches or ICT in a creative way.	4	Provide reasoning on the importance of properties of light in daily life.	

WEEK : 22-23	THEME : PHYSICAL SCIENCE		5.0 PROPERTIES OF LIGHT
CONTENT STANDARD	**LEARNING STANDARD**	**PERFORMANCE STANDARD**	**REMARKS**
		PERFORMANCE LEVEL / **DESCRIPTOR**	

5.3 Refraction of Light	Pupils are able to: 5.3.1 State that light can be refracted, through observation using various media. 5.3.2 Explain through examples that light can be refracted by carrying out activities. 5.3.3 Describe the formation of rainbow by carrying out activities. 5.3.4 Explain the observations on refraction of light through written or verbal forms, sketches or ICT in a creative way.	5	Conclude the factors that affect the size and shape of the shadow.	Notes: Situations or phenomena that show refraction of light such as: (i) Position of a coin in water. (ii) Shape of a pencil in a glass of water.
		6	Communicate creatively and innovatively on innovations of device that apply properties of light to solve problems in daily life.	
CUTI PENGGAL 2, SESI 2022/2023 **(KUMPULAN A: 02.09.2022 - 10.09.2022, KUMPULAN B: 03.09.2022 - 11.09.2022)**				

WEEK : 24-25	**THEME : PHYSICAL SCIENCE**	**TOPIC : 6.0 SOUND**	
CONTENT STANDARD	**LEARNING STANDARD**	**PERFORMANCE STANDARD**	**REMARKS**
		PERFORMANCE LEVEL / **DESCRIPTOR**	

6.1 Sound	Pupils are able to: 6.1.1 State that sound is produced by vibrations, by carrying out activities. 6.1.2 Describe that sound travels in all directions. 6.1.3 Give examples of phenomenon that show sound can be reflected in daily life. 6.1.4 Describe the sound that is useful and harmful in daily 6.1.5 life. Generate ideas to solve problems in reducing sound pollution.	1	List ways to produce sound.	Notes: Sound can be produced by blowing, knocking, plucking, bowing and clapping. Examples of reflection of sound are echo, sonar and ultrasonic.
		2	State that sound is produced by vibrations.	
		3	Make generalisation that sound travels in all directions.	

CONTENT STANDARD	LEARNING STANDARD	PERFORMANCE STANDARD		REMARKS
		PERFORMANCE LEVEL	DESCRIPTOR	

	6.1.6 Explain the observation of sound through written or verbal forms, sketches or ICT in a creative way.	4	Explain through examples the phenomena that show sound can be reflected.	
		5	Solve problems to reduce sound pollution in daily life.	
		6	Communicate creatively and innovatively on the effects of sound in daily life and present the findings.	

WEEK : 26-27	**THEME : PHYSICAL SCIENCE**	**TOPIC : 7.0 ENERGY**
CONTENT	**PERFORMANCE STANDARD**	

STANDARD	LEARNING STANDARD	PERFORMANCE LEVEL	DESCRIPTOR	REMARKS
7.1 Sources and Forms of Energy	Pupils are able to: 7.1.1 State the meaning of energy. 7.1.2 Describe various sources of energy through observation using various media. 7.1.3 Explain with examples the various forms of energy. 7.1.4 Explain through examples the transformation of energy 7.1.5 in daily life. Make generalisation that energy cannot be created or destroyed but 7.1.6 can be transformed. Explain the observations on the sources and forms of energy through written or verbal forms, sketches or ICT in a creative way.	1	List the sources and forms of energy.	Notes: Forms of energy such as solar energy, heat energy, chemical energy, electrical energy, kinetic energy, sound energy, potential energy, light energy and nuclear energy.
		2	Describe renewable and non-renewable energy sources.	
		3	Explain with examples the tranformation of energy.	

WEEK : 28-29	THEME : PHYSICAL SCIENCE	TOPIC : 7.0 ENERGY

CONTENT STANDARD	LEARNING STANDARD	PERFORMANCE STANDARD		REMARKS
		PERFORMANCE LEVEL	DESCRIPTOR	
7.2 Renewable and Non-renewable Energy Sources	Pupils are able to: 7.2.1 Explain with examples renewable and non-renewable energy sources through observation using various media. 7.2.2 Generate ideas on the importance of using energy wisely. 7.2.3 Explain the observations on renewable and non-renewable energy sources through written or verbal forms, sketches or ICT in a creative way.	4	Provide reasoning on the importance of saving energy for sustainability of energy sources.	Notes: Renewable energy sources can be generated continuously. Non-renewable energy sources are limited and cannot be generated continuously. Renewable energy has the potential to be the future source of energy.
		5	Carry out activities to prove the transformation of energy that occurs in daily life.	
		6	Communicate creatively and innovatively on innovations in the use of energy resources in the future.	

WEEK : 30	THEME : MATERIALS SCIENCE	TOPIC : 8.0 MATERIAL

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<tr><th colspan="2" rowspan="2">CONTENT STANDARD</th><th rowspan="2">LEARNING STANDARD</th><th colspan="2">PERFORMANCE STANDARD</th><th rowspan="2">REMARKS</th></tr>
<tr><th>PERFORMANCE LEVEL</th><th>DESCRIPTOR</th></tr>
<tr><td>8.1</td><td>Basic Sources of Materials</td><td>Pupils are able to :

8.1.1 Explain through examples the basic sources of materials used to make objects.

8.1.2 Classify objects based on basic sources.

8.1.3 Explain the observations on the basic sources of materials through written or verbal forms, sketches or ICT in a creative way.</td><td>1</td><td>Match materials to their basic sources.</td><td rowspan="3">Notes:

<table><tr><th>Basic source</th><th>Material</th><th>Example of objects</th></tr><tr><td rowspan="3">Plant</td><td>wood</td><td>table</td></tr><tr><td>cotton</td><td>clothes</td></tr><tr><td>rubber</td><td>tyre</td></tr><tr><td rowspan="3">Animal</td><td>skin</td><td>handbag</td></tr><tr><td>wool</td><td>sweater</td></tr><tr><td>silk</td><td>shawl</td></tr><tr><td rowspan="2">Rocks</td><td>metal</td><td>nail</td></tr><tr><td>soil</td><td>mirror glass</td></tr><tr><td>Petroleum</td><td>plastic</td><td>pail</td></tr><tr><td></td><td>synthetic cloth</td><td>umbrella</td></tr></table></td></tr>
<tr><td></td><td></td><td></td><td>2</td><td>Characterise objects based on type of materials and basic sources.</td></tr>
<tr><td></td><td></td><td></td><td>3</td><td>Classify objects based on materials or basic sources.</td></tr>
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<table>
<tr><td colspan="2">WEEK : 31</td><td colspan="2">THEME : MATERIALS SCIENCE</td><td colspan="2">TOPIC : 8.0 MATERIAL</td></tr>
<tr><td rowspan="2">CONTENT STANDARD</td><td rowspan="2">LEARNING STANDARD</td><td colspan="2">PERFORMANCE STANDARD</td><td rowspan="2">REMARKS</td></tr>
<tr><td>PERFORMANCE LEVEL</td><td>DESCRIPTOR</td></tr>
<tr><td rowspan="2">8.2 Properties of Materials</td><td rowspan="2">Pupils are able to:
8.2.1 Describe the properties of materials by carrying out activities.
8.2.2 Create an object by applying the knowledge of properties of materials.
8.2.3 Provide reasoning on the types of materials chosen in creating the object.
8.2.4 Explain the observations on the properties of materials through written or verbal forms, sketches or ICT in a creative way..</td><td>4</td><td>Make generalisation on the properties of materials by carrying out investigation.</td><td rowspan="2">Notes:

Properties of materials such as:
(i) Water absorbent and waterproof.
(ii) Float and sink.
(iii) Conduct electricity
(iv) Ability to allow light to pass through.
(v) Conduct heat.
(vi) Elasticity.</td></tr>
<tr><td>5</td><td>Make inferences on the materials used for each part of the object.</td></tr>
</table>

CONTENT STANDARD	LEARNING STANDARD	PERFORMANCE STANDARD		REMARKS
		PERFORMANCE LEVEL	DESCRIPTOR	
		6	Create an object by applying the knowledge of the properties of the materials and present it in a creative and innovative way.	

WEEK : 32	THEME : EARTH AND SPACE	TOPIC : 9.0 EARTH	
CONTENT STANDARD	**LEARNING STANDARD**	**PERFORMANCE STANDARD**	**REMARKS**
		PERFORMANCE LEVEL / **DESCRIPTOR**	
9.1 Gravity of Earth	Pupils are able to: 9.1.1 Describe the gravitational pull of Earth based on observation by carrying out activities. 9.1.2 Make generalisation that all objects on Earth remain in their positions, by carrying 9.1.3 out activities. Explain the observations on gravity of Earth through written or verbal forms, sketches or ICT in a creative way.	1 — State that the Earth rotates on its axis and at the same time revolves around the Sun in its orbit. 2 — Explain the gravitational pull of Earth. 3 — Describe the effects of rotation of the Earth.	Notes : Gravitational pull of Earth is a force that pulls objects towards the Earth. The effects of gravitional pull of Earth: (i) objects fall freely. (ii) objects remain in their position. Objects on Earth remain in their position and this can be demonstrated using a globe.

WEEK : 33-34	THEME : EARTH AND SPACE	TOPIC : 9.0 EARTH

CONTENT STANDARD	LEARNING STANDARD	PERFORMANCE STANDARD		REMARKS
		PERFORMANCE LEVEL	DESCRIPTOR	
9.2 Rotation and Revolution of Earth	Pupils are able to: 9.2.1 State that the Earth rotates on its axis and at the same time revolves around the Sun in its orbit. 9.2.2 Describe the rotation and revolution of the Earth in terms of direction and duration by carrying out activities. 9.2.3 Describe the effects of the rotation of the Earth on its axis by carrying out activities. 9.2.4 Explain the observations on the rotation and revolution of the Earth through written or verbal forms, sketches or ICT in a creative way.	4	Provide reasoning on the importance of the gravitational pull on the Earth.	Notes: The effects of Earth's rotation on its axis: (i) Occurrence of day and night; (ii) The Sun seems to change its position; (iii) Changes in length and direction of the shadow. Suggested activity: Encourage the use of ICT to view the rotation and revolution of the Earth.

		5	Summarise the rotation and revolution of the Earth using graphic organisers.	

CONTENT STANDARD	LEARNING STANDARD	PERFORMANCE STANDARD		REMARKS
		PERFORMANCE LEVEL	DESCRIPTOR	
		6	Communicate creatively and innovatively on other effects of the rotation and revolution of the Earth.	

WEEK : 35-36	THEME: TECHNOLOGY AND SUSTAINABILITY OF LIFE		TOPIC : 10.0 MACHINES	
CONTENT STANDARD	**LEARNING STANDARD**	**PERFORMANCE STANDARD**		**REMARKS**
		PERFORMANCE LEVEL	**DESCRIPTOR**	
10.1 Lever	Pupils are able to: 10.1.1 Identify the load, fulcrum and force on the lever by carrying out activities. 10.1.2 Make generalisation on the relationship between the distance of load from fulcrum with	1	Give examples for each type of simple machines.	Notes : The design of a model consisting of various simple machines and its functions explained. Suggested activity: Encourage the use of

	the required force. 10.1.3 Explain the observations about the lever through written or verbal forms, sketches or ICT in a creative way.	2	Describe the simple machines found in a complex machine.	ICT to observe the relationship between the distance of load from fulcrum with the force.
		3	Make generalisation on the relationship between the distance of load from fulcrum with the required force.	

CUTI PENGGAL 3, SESI 2022/2023
(KUMPULAN A: 09.12.2022 - 31.12.2022, KUMPULAN B: 10.12.2022 - 31.12.2022)

WEEK : 37-39	**THEME: TECHNOLOGY AND SUSTAINABILITY OF LIFE**	**TOPIC : 10.0 MACHINES**	
CONTENT STANDARD	**LEARNING STANDARD**	**PERFORMANCE STANDARD**	**REMARKS**
		PERFORMANCE LEVEL / **DESCRIPTOR**	
10.2 Simple Machines and Complex Machines	Pupils are able to: 10.2.1 Explain with examples the types and uses of simple machines by carrying out activities.	4 — Generate ideas to solve problems involving the use of machines.	Notes : Types of simple machines are lever, gear, pulley, wheel and axle, wedge, screw and inclined plane.

	10.2.2 Solve problems using two or more simple machines. 10.2.3 Summarise the meaning of complex machines. 10.2.4 Explain the observations of the simple and complex machines through written or verbal forms, sketches or ICT in a creative way.	5	Communicate to show the importance of inventing sustainable machines.	Examples of problems in daily life such as lifting and moving heavy loads. The complex machine consists of a combination of more than one simple machine.
		6	Design a model of complex machine and present it creatively and innovatively.	

40	ULANGKAJI
41	PENTAKSIRAN AKHIR TAHUN
42-43	PENGURUSAN AKHIR TAHUN
CUTI AKHIR PERSEKOLAHAN SESI 2022/2023 (KUMPULAN A: 17.02.2023 - 11.03.2023, KUMPULAN B: 18.02.2023 - 12.03.2023)	