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DepED
DEPARTMENT OF EDUCATION

Lesson Exemplar for Science

Quarter 4
Lesson
1

Lesson Exemplar for Science Grade 8
Quarter 4: Lesson 1 of 8 (Week 1)
SY 2025-2026

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SCIENCE (PHYSICS) /4th QUARTER/ GRADE 8

I. CURRICULUM CONTENT, STANDARDS, AND LESSON COMPETENCIES	
A. Content Standards	1. Forces cause objects to accelerate. 2. An object is accelerating if the magnitude and/or direction of its velocity changes. 3. Kinetic energy is the energy of movement, and potential energy is stored energy. 4. As an object falls from a height its energy is conserved because its potential energy is transformed to kinetic energy. 5. The resources of the Philippines provide many benefits to its people and their activities.
B. Performance Standards	*By the end of the Quarter,* learners demonstrate understanding of the technical meaning of acceleration and apply their understanding to everyday situations involving motion. They represent and interpret acceleration in distance-time and velocity-time graphs to make predictions about the movement of objects. Learners link motion to kinetic energy and potential energy and explain transformations between them using everyday examples. Learners relate understanding of kinetic energy and potential energy to an appreciation of the hydro-electric resources of the Philippines for the generation of electricity for use in homes, communities, and industries. They use scientific investigations to explore the properties of light and apply their learning to solving problems in everyday situations.
C. Learning Competencies and Objectives	***Learning Competency 1:*** *The learners identify that forces cause objects to accelerate, and that acceleration of an object is its rate of change of velocity.* ***Lesson Objective 1***: Recognize and name the forces that lead to the acceleration of objects. ***Lesson Objective 2***: Define acceleration as the rate of change of an object's velocity. ***Lesson Objective 3:*** Calculate acceleration based on a change in velocity over time. ***Learning Competency 2:*** *The learners observe and describe examples of accelerating objects at school and in the local community, including objects that show uniform circular motion.* ***Lesson Objective 1***: Identify and describe examples of objects accelerating at school and community. ***Lesson Objective 3:*** Differentiate uniform and non-uniform acceleration
D. Content	**Acceleration** • Acceleration is the rate at which an object's velocity changes, either in magnitude or direction. • Acceleration can be constant or changing, depending on whether an object's velocity changes by a constant amount or varies over time. • Linear acceleration occurs when an object moves in a straight line and changes speed, while curvilinear acceleration is observed in non-linear motion, like circular paths.

	• Acceleration is caused by an unbalanced force acting on an object. • Acceleration is mathematically expressed as $a = \frac{\triangle v}{\triangle t}$, where a is acceleration, $\triangle v$ is the change in velocity, and $\triangle t$ is the change in time. This equation highlights how acceleration relates to change in speed. • Acceleration is either positive, when a moving object is speeding up, or negative when an object is slowing down or decelerating. • Common examples include a car accelerating on a flat road at a constant rate and a block sliding on a horizontal surface with a constant force. • Uniform acceleration is experienced by a moving object with a velocity that changes at a constant rate, meaning its speed or velocity increases or decreases by a constant amount in equal intervals of time. • Non-uniform acceleration is the acceleration of an object that is not constant over time. It means that the velocity does not change by a constant amount in equal intervals of time.
E. Integration	Road safety: Sudden acceleration or deceleration can lead to loss of control and potential accidents. Drivers of cars, jeepneys, tricycles, and other local vehicles must take proper precautions and not have a sudden change in velocity by speeding up, slowing down, or turning.

II. LEARNING RESOURCES

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III. TEACHING AND LEARNING PROCEDURE		NOTES TO TEACHERS
A. Activating Prior Knowledge	**DAY 1** **Activity 1.1: Picture Analysis (10 minutes)** **Picture A**  *Picture link: https://commons.wikimedia.org/wiki/* **Picture B**  *Picture link: https://bit.ly/458PKvC* **Guide Questions:** 1. What do you observe in pictures A and B? 2. What do you think is happening to the speed of the objects (jeepney and carabao with a cart) in the pictures? 3. What might be causing their change in speed?	Start the lesson by presenting the two pictures that involve motion with a changing speed. You can choose different pictures that students are familiar with. Display each picture on the projector or TV and ask students the guide questions. Discuss their responses, review uniform motion, discuss that change of velocity is necessary, and introduce the concept of acceleration. **KEY to Activity 1.1** 1. I observe a jeepney full of passengers in picture A and a carabao running in picture B. 2. I think the speed of the jeepney and the carabao is changing. 3. The jeepney is slowing down because of the weight of the passengers. The carabao is speeding up because the rider hits it.
B. Establishing Lesson Purpose	**1. Lesson Purpose** **Activity 1.2: Think-Ink-Pair-Share about Acceleration (10 minutes)**	Establish the lesson purpose through the Think-Pair-Share Activity. Discuss students'

Ask students to answer the following questions in their notebook or learning activity sheet. When they're done, tell them to share their answers with a partner, preferably their seatmates.

1. When you travel from home to school, do you experience uniform motion *(traveling at a constant speed)* or a motion with changing speed?

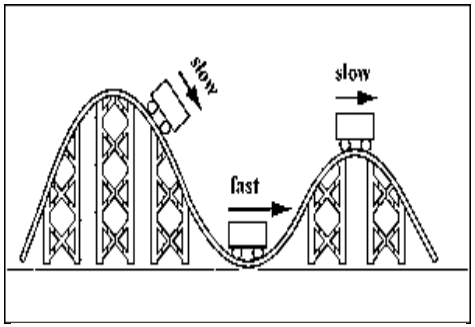
Uniform motion is a type of motion in which an object moves in a straight line with a constant speed in each period. By experience, it is very rare to experience uniform motion whenever we travel from home to school because many factors change our vehicle's speed. Some of these are heavy traffic *(slows down)* and overtaking a car *(speeds up).*

https://pixabay.com/vectors/speedometer

2. What do you think will happen if the vehicles we ride cannot change their speed and direction?
3. Aside from safety, think of another purpose for changing speed, direction, or both.

THINK OF THIS!
What makes a roller coaster ride exciting?

Most people will say that speed makes a roller coaster ride exciting, but that is not true. If it is, people would rather ride in a car at a particular speed. The reason why a roller coaster ride is exciting is because of the change in speed. The motion of slowing down and speeding up makes it exciting, which is the concept of acceleration.



https://qsstudy.com/acceleration-definition-calculation/

answers and guide them to recognize the importance of changing speed, direction, or both.

KEY to Activity 1.2 *(possible answers)*

1. When I travel from home to school, I experience a motion with changing speed as the vehicle I am riding speeds up, slows down, changes direction, and stops at some point.
2. If vehicles could not change their speed or direction, accidents, traffic congestion, and chaos would increase. It would make navigating roads, stopping, and responding to emergencies impossible, compromising safety and practicality.
3. Changing speed and direction enhances the thrill and enjoyment of rides in an amusement park. Roller coasters and other attractions rely on variations in speed and direction to create excitement, simulate different experiences, and keep the rides engaging for visitors.

You can ask your students who among them who have experienced riding a roller coaster. Remind them of the precautionary measures in riding amusement rides.

C. Developing and Deepening Understanding

Subtopic 1: Definition of Acceleration

1. Explicitation

Class Discussion (35 minutes)

Video Presentation:

Physics - What is Acceleration | Motion | Velocity | Infinity Learn NEET

Guide questions:

1. Is a car in uniform motion accelerating?
2. What does acceleration mean?
3. When can we say that an object is accelerating?

Acceleration

- Is a vector quantity
- **Rate of change in velocity** *(speed + direction)* **over a period of time**
- Since the discussion is limited to rectilinear or straight-line motion, acceleration would mean **a change in speed rather than a change in direction**
- **Uniformly accelerated motion** – happens when **velocity is changing at a fixed/constant rate**

$$a = \frac{v_f - v_i}{t}$$

Where:
a = acceleration (m/s²)
V_f = final velocity (m/s)
V_i = initial velocity (m/s)
t = time (s)

The acceleration formula can be rearranged to solve for other variables, such as final speed (v_f), initial speed (v_i), and time (t).

Final Velocity (V_f) is missing	**Initial Velocity (V_i) is missing**	**Time (t) is missing**
$v_f = at + v_i$	$v_i = v_f - at$	$t = \frac{v_f - v_i}{a}$

An object is accelerating in the following conditions:

a. There is a **change in speed** but no change in direction.
b. There is no change in speed, but there is a **change in direction**
c. **Both speed and direction are changing.**

Before discussing the uniform circular motion concepts, show the YouTube video about acceleration.

You can use the link or the QR code below to access the video on YouTube:

https://bit.ly/3X4XU6e

If you can't project the video, proceed to the discussion.

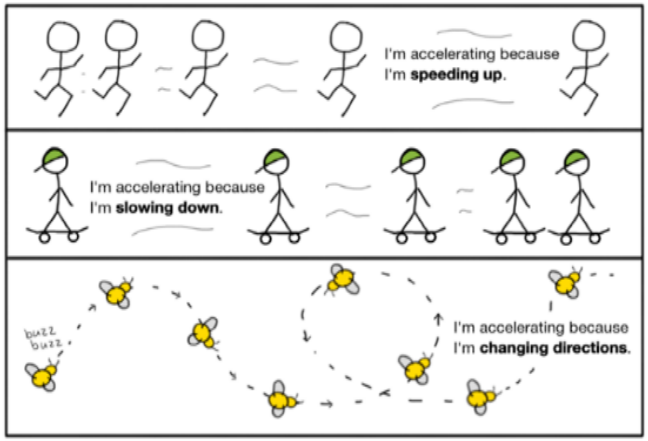
Conduct an interactive discussion about acceleration. Use the questions below as your guide.
Note: *This lesson is for rectilinear or one-dimensional motion. When the direction is not specified, the moving objects are assumed to maintain their direction.*

1. Is a car in uniform motion accelerating?
   Uniform motion is a type of motion wherein an object travels in a straight path at a constant speed, which means that the speed is not changing. You learned that one of the instances for an object to accelerate is there must be a change in speed. Therefore, a

https://coloringlib.com/tortoise/tortoise-and-hare-race/
https://commons.wikimedia.org/wiki/

THINK OF THIS!
What is the difference between acceleration and deceleration?

Picture link: https://bit.ly/4c8myqN



THINK OF THIS!
Is a car in uniform motion accelerating?

Examples of acceleration:

- A car accelerating on a highway.
- An apple falling from a tree.
- A sprinter is starting a race.
- A roller coaster descending rapidly.

DAY 2

2. Worked Example

Steps to solve word problems:

1. Read and understand the problem.
2. Identify what is known (given values) and unknown (what is required).
3. Determine the formula to use in computing the unknown.
4. Substitute the given values in the formula.
5. Write the final answer using the correct unit of measure.

Note: *Round off your answers to two decimal places.*

car in uniform motion is not accelerating.

2. What does acceleration mean?
   Acceleration is the name we give to any process where the velocity changes. Since velocity is a speed and a direction, there are only two ways to accelerate: change your speed or direction—or change both.
   If you're not changing your speed and direction, you are not accelerating—no matter how fast you're going.
3. When can we say that an object is accelerating?
   An object accelerates if it has a change in speed, direction, or both.
4. What is the difference between acceleration and deceleration?
   *A **positive value** for acceleration **shows speeding up,** and a **negative value** for acceleration shows **slowing down. Slowing down** is also called **deceleration.***
5. Give examples of situations with objects that are accelerating. *(Solicit answers from all students if possible.)*

Before proceeding to the next part of the lesson, make sure that students understand acceleration's meaning and distinguish it from speed or velocity.

Activity 1.3: Exploring Acceleration Through Problem-Solving (20 minutes)

Sample Problem 1: A jeepney changes its velocity from 17 m/s to 23 m/s for 5 seconds. What is the acceleration of the jeepney during the 5-second interval?

Given:	**Required:**	**Formula:**
$\boldsymbol{v_i}$ = 17 m/s $\boldsymbol{v_f}$ = 23 m/s t = 5 s	**a** = ?	$\boldsymbol{a = \frac{v_f - v_i}{t}}$
Solution: $\boldsymbol{a} = \frac{23\,\frac{m}{s} - 17\,\frac{m}{s}}{5\,s} = \frac{6\,\frac{m}{s}}{5\,s}$ $\boldsymbol{a}$ =1.2 m/s^2		
Answer: The jeepney's acceleration is 1.2 m/s^2.		

Sample Problem 2: A car accelerates at a rate of 3.0 m/s^2. If its initial velocity is 8.0 m/s, how many seconds will it take the car to reach a final velocity of 25.0 m/s?

Given:	**Required:**	**Formula:**
a = 3.0 m/s^2 $\boldsymbol{v_i}$ = 8.0 m/s $\boldsymbol{v_f}$ = 25.0 m/s	t = ?	$\boldsymbol{t = \frac{v_f - v_i}{a}}$
Solution: $t = \frac{25.0\ \text{m/s} - 8.0\ \text{m/s}}{3.0\ \text{m/s}^2} = \frac{17.0\ \text{m/s}}{3.0\ \text{m/s}^2}$ t = 5.67 s		
Answer: It takes 5.67 s for the car to accelerate from 8.0 m/s to 25.0 m/s at a rate of 3.0 m/s^2.		

Reinforce students' understanding of acceleration by solving motion problems. Guide them in using the acceleration formula.

Solve the three sample problems on the board with the students following the problem-solving steps. Remind them that problem-solving is an essential scientific skill, and they need to pay attention to details and correct steps. Emphasize that we also need to use the correct units for the quantities involved.

Review the System International (SI) units of quantities involved in the computations.

Quantity	Symbol	SI unit
Time	t	Second (s)
Initial velocity	$\mathbf{v_i}$	Meter/ second (m/s)
Final velocity	$\mathbf{v_f}$	Meter/ second (m/s)
Acceleration	**a**	Meter/ second^2 (m/s^2)

Acceleration **Simplifying the units:**	
1. Simplify the complex fraction.	$\frac{\frac{m}{s}}{s}$
2. Multiply the numerator (m/s) by the reciprocal of the denominator ($1/s$).	$\frac{m}{s} x \frac{1}{s}$

Sample Problem 3: An LRT train accelerates from rest at 1.25 m/s². What will be its final velocity after 20 seconds?

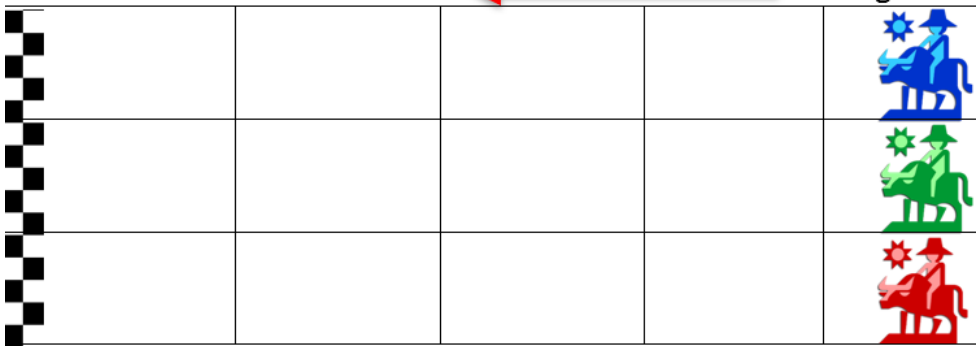
Given:	**Required:**	**Formula:**
a = 1.25 m/s² v_i = 0 m/s (starts from rest) t = 20 s	v_f = ?	$v_f = at + v_i$
Solution: v_f = (1.25 m/s² x 20 s) + 0 m/s) = 25 m/s + 0 m/s = 25 m/s Simplify the unit by canceling s and s in the numerator and denominator. $\frac{m}{s^2} \cdot s$ $= \frac{m}{s}$		
Answer: The train's final velocity is 25 m/s.		

3. Lesson Activity

Activity No. 1.4: Acceleration Challenge Carabao Race (35 minutes)

The Carabao Racing Field:

Finish Line ← **Starting Point**



3. Combine the same unit (s and s in the denominators).	$\frac{m}{s^2}$

Time **Simplifying the unit:**	
1. Simplify the complex fraction.	$\frac{\frac{m}{s}}{\frac{m}{s^2}}$
2. Multiply the numerator (m/s) by the reciprocal of the denominator ($1/s$).	$\frac{m}{s} \times \frac{s^2}{m}$
3. Cancel the same unit (m and m and s and s in the numerators and denominators).	s *One s is left from s^2.

For Activity No. 1.4:
Prepare the carabao race field on the board, the carabao icons of each group, and three copies of each of the four word problems they will solve.
Divide the class into three teams.
Note: If you have more students, you can group them into 4 or 5 groups so each group has ten maximum members. Make sure to provide one carabao icon to each group.

Each team is provided a copy of the first problem but should wait to open it until the teacher gives the signal. Once the teacher signals, teams open their selected

Word Problems:

1. A student was walking at a speed of 2 m/s when a dog started chasing him. In a panic, he sprinted as fast as he could, reaching a speed of 7 m/s over a 4-second interval. What was his acceleration during that time interval?

Given:	**Required:**	**Formula:**
$\boldsymbol{v_i}$ = 2 m/s $\boldsymbol{v_f}$ = 7 m/s t = 4 s	**a** = ?	$\boldsymbol{a = \frac{v_f - v_i}{t}}$
Solution: $\boldsymbol{a} = \frac{7\frac{m}{s} - 2\frac{m}{s}}{4\,s} = \frac{5\frac{m}{s}}{4\,s}$ $\boldsymbol{a}$ =1.25 m/s^2		
Answer: The student's acceleration is 1.25 m/s^2.		

2. A tricycle is moving at 8 m/s. It decelerates and comes to a stop in 5 seconds. Calculate the acceleration of the tricycle.

Given:	**Required:**	**Formula:**
$\boldsymbol{v_i}$ = 8 m/s $\boldsymbol{v_f}$ = 0 m/s (it stops) t = 5 s	**a** = ?	$\boldsymbol{a = \frac{v_f - v_i}{t}}$
Solution: $\boldsymbol{a} = \frac{0\frac{m}{s} - 8\frac{m}{s}}{5\,s} = \frac{-8\frac{m}{s}}{5\,s}$ $\boldsymbol{a}$ = - 1.6 m/s^2		
Answer: The tricycle's acceleration is - 1.6 m/s^2.		

3. A pedicab starts from rest and accelerates at 2 m/s^2. How long will it take to reach a final velocity of 6 m/s?

Given:	**Required:**	**Formula:**
a = 2 m/s^2 $\boldsymbol{v_i}$ = 0 m/s $\boldsymbol{v_f}$ = 6 m/s	t = ?	$\boldsymbol{t = \frac{v_f - v_i}{a}}$

problem and work together to answer it. When they're done, they should show their correct answer and solution to the teacher to proceed to the next problem. Each time they get the correct answer, the teacher will move their carabao icon to the next box in the racing field.

The first team to correctly answer all four word problems and cross the finish line wins the race.

Focus on one of the problems in the previous activity. Ask students to examine the change in motion per second in the situation.

Solution: $t = \frac{6\ m/s - 0\ m/s}{2\ m/s^2} = \frac{6\ m/s}{2\ m/s^2}$ $t = 3\ s$
Answer: It takes 3 s for the pedicab to accelerate from 0 m/s to 6 m/s at a rate of 2 m/s².

4. During a race in Palarong Pambansa, an athlete accelerates at 1.5 m/s² from an initial velocity of 3 m/s. What will be his final velocity after 4 seconds?

Given:	**Required:**	**Formula:**
a = 1.5 m/s² $\boldsymbol{v_i}$ = 3 m/s t = 4 s	$\boldsymbol{v_f}$ = ?	$\mathbf{v_f} = \mathbf{at} + \mathbf{v_i}$
Solution: $\mathbf{v_f}$ = (1.5 m/s² x 4 s) + 3 m/s) = 6 m/s + 3 m/s = 9 m/s		
Answer: The train's final velocity is 9 m/s.		

Present to them a table that shows an athlete's velocity, time of motion, and acceleration. Before presenting the complete data in the table, ask them to provide the velocity and acceleration at 1 s, 2 s, 3 s, and 4 s.

DAY 3

Subtopic 2: Uniform and Non-Uniform Acceleration

1. Explicitation

Activity 1.5: Situation Analysis of Motion with Uniform Acceleration (15 minutes)

During a race in Palarong Pambansa, an athlete accelerates at 1.5 m/s² from an initial velocity of 3 m/s. The time taken is 4 seconds.

Table 1. Velocity, Time, and Acceleration of an Athlete

Velocity	Time	Acceleration
3 m/s	0	_
4.5 m/s	1 s	**a** = (4.5 m/s – 3 m/s)/1 s = 1.5 m/s²
6 m/s	2 s	**a** = (6 m/s – 4.5 m/s)/1 s = 1.5 m/s²

KEY to Activity 1.5

1. The athlete's change of velocity is 1.5 m/s every second for four seconds. It is the same change every second.
2. We say that a moving object's acceleration is uniform when its velocity changes by the same amount at equal intervals of time.
3. Possible examples:
   - A car speeds up by 2 km/h every second.
   - A falling object accelerates at 10 m/s².

7.5 m/s	3 s	**a** = (7.5 m/s – 6 m/s)/1 s = 1.5 m/s^2
9 m/s	4 s	**a** = (9 m/s – 7.5 m/s)/1 s = 1.5 m/s^2

Note: Use a one-second time interval to calculate acceleration.
Guide questions:

1. What do you notice with the athlete's change of velocity every second for four seconds?
2. When can we say that a moving object has a uniform acceleration?
3. Give one example of an object or something that changes constantly in our school or community.

2. Worked Example
Class Discussion (25 minutes)
Discuss the differences between uniform acceleration and non-uniform acceleration.

Feature	Uniform Acceleration	Non-Uniform Acceleration
Definition	Velocity changes by the same amount in each equal interval of time	Velocity changes by different amounts in equal intervals of time
Characteristics	Consistent change in velocity over time	Irregular or non-consistent change in velocity over time
Real-Life Example	A car accelerating steadily on a straight road	A car encountering traffic lights, resulting in changing acceleration

3. Lesson Activity
Activity 1.6: Venn Diagram Construction about Uniform Acceleration vs. Non-uniform Acceleration (15 minutes)
Refer to learning activity sheet for students to accomplish.

KEY to Activity 1.6
Differences:
Uniform Acceleration: The velocity of a moving object changes by the same amount in each equal interval of time

Non-Uniform Acceleration: The velocity of a moving object changes by different amounts in equal intervals of time.

Similarities:
They both refer to acceleration.
They both describe motion with a changing velocity.

D. Making Generalizations

DAY 4

1. Learners' Takeaways

Activity No. 1.7: Tour in Albay, Bicol

Recall from Grade 7 Science the characters Sarig and Gayon. In their final adventure, they aim to reach the Mayon Rest House and Planetarium. Both characters travel by jeepney and keep in touch via mobile phones as they journey around Albay. During their rides, Sarig and Gayon notice three instances affecting the motion of the jeepney.

1. Based on the observations of Sarig and Gayon, when can we say that an object is accelerating? Give examples from the story.
2. What causes the jeepney to accelerate?
3. Why is it important to understand and recognize when an object is accelerating?

2. Reflection on Learning

Put your Thinking Caps On: Road Safety Connection

Acceleration is usually associated with road accidents. Identify three (3) situations wherein acceleration causes accidents on the road. (*Possible answers are given inside the parenthesis)*

1. *(**Sudden Acceleration.** A driver suddenly accelerates to overtake another vehicle. This can cause the driver to lose control of the vehicle, especially if the road is slippery or the vehicle is not designed for such maneuvers.)*
2. *(**Acceleration Around Corners.** A driver accelerates while making a turn, which can cause the vehicle to skid or slide, especially on wet roads, leading to loss of control and potential collisions with other vehicles or obstacles.)*
3. *(**Rapid Acceleration from a Stop.** A driver rapidly accelerates from a stop sign or traffic light. Rapid acceleration can catch other drivers or pedestrians off guard, especially at intersections, leading to collisions.)*

Learners' Takeaways

KEY to Activity 1.7

(In this part, you may refer to Grade 7 worksheet.)

1. An object accelerates if it has a change in speed, direction, or both. For example:
   a. When the driver stepped on the gas pedal, the jeepney changed speed from 30 km/h to 40 km/h (Figure 1).
   b. When the jeepney slowed down from 20 km/h to 10 km/h.
   c. When the jeepney changes direction while turning a corner (Figure 3).
2. The jeepney accelerates when the driver applies force on it by stepping on the brakes or the gas pedal and by turning the steering wheel.
3. Knowing when and how objects accelerate helps in ensuring safety, particularly in transportation. For example, drivers need to be aware of acceleration and deceleration to avoid accidents and ensure smooth and safe travel.

Reflection on Learning

Conduct an oral recitation for this activity after they write their answers in their notebook.

IV. EVALUATING LEARNING: FORMATIVE ASSESSMENT AND TEACHER'S REFLECTION		NOTES TO TEACHERS

A. Evaluating Learning

1. Formative Assessment

A. Identification. Write **A** if the situation shows that an object is ACCELERATING and **NA** if it is NOT ACCELERATING.

1. A truck moving at a constant speed turns east.
2. A car parked in front of a mall.
3. A jeepney slowing down.
4. A bicycle moving at a constant speed on a straight path.
5. A runner slowing down after crossing the finish line.

B. True or False. Write True if the statement is true; otherwise, write False.

1. An object accelerates when an unbalanced force is acting on it.
2. Acceleration is defined as the rate of change of an object's velocity.
3. A car moving at a constant speed on a straight road is accelerating.
4. Non-uniform acceleration is characterized by a constant change in velocity over equal time intervals.
5. An example of uniform acceleration is a roller coaster that speeds up and slows down throughout the ride.

C. Problem-solving. Solve the following problems on acceleration. Show your complete solution with the correct units. (5 pts. Each)

Note: Round off your answers to two decimal places.

1. What is the car's acceleration if its speed changes from 0 m/s to 60 m/s in 6 seconds?	**Given:** **Required:**	**Formula:** **Solution:**
2. A cyclist accelerates at a rate of 7 m/s^2. How long will it take the cyclist to reach a speed of 18 m/s from 0 m/s?	**Given:** **Required:**	**Formula:** **Solution:**
3. A motorcycle traveling at 25 m/s accelerates at a rate of 8 m/s^2 in 5 seconds. What is the final speed of the motorcycle?	**Given:** **Required:**	**Formula:** **Solution:**

Rubric:

Excellent (4)	Correct given values, unknown, and formula to use are identified; Correct and complete solution is shown; Correct final answer is given. (5 points)

Answer Key:

A.

1. **A**
2. **NA**
3. **A**
4. **NA**
5. **A**

B.

1. **True**
2. **True**
3. **False**
4. **False**
5. **False**

C. Note: If there is enough time, give all three problems to your students. But if the time is limited, choose two out of the three problems.

1. Given: $\mathbf{v_i}$ = 0 m/s $\mathbf{v_f}$ = 60 m/s t = 6 s	Formula: $\mathbf{a} = \frac{\mathbf{v_f} - \mathbf{v_i}}{\mathbf{t}}$ Solution: $\mathbf{a} = \frac{\mathbf{60\ m/s - 0m/s}}{\mathbf{6\ s}}$ $\mathbf{a}$ = 10m/s^2
Required: **a** = ?	

2. Given: $\mathbf{v_i}$ = 0 m/s $\mathbf{v_f}$ = 18 m/s **a** = 7 m/s^2	Formula: $\mathbf{t} = \frac{\mathbf{v_f} - \mathbf{v_i}}{\mathbf{a}}$ Solution: $\mathbf{t} = \frac{\mathbf{18\ m/s - 0m/s}}{7\ m/s^2}$
Required: **t** = ?	

	Proficient (3)	Given values, unknown, and formula to use are identified but one of these is incorrect; Correct and complete solution is shown; Correct final answer is given. (4 points)	
	Satisfactory (2)	Incomplete given values, unknown, and formula to use are identified; Correct solution is shown; Correct final answer is given; Some units are lacking or incorrect. (3 points)	
	Developing (1)	Incomplete given values, unknown, and formula to use are identified; Incorrect solution is shown; Incorrect final answer is given; Some units are lacking or incorrect. (2 points)	
	Beginning (0)	No attempt to answer (0 points)	

	t = 2.57 s
3. Given: $\mathbf{v_i}$ = 25 m/s **a** = 8 m/s^2 t = 5 s	Formula: $\mathbf{v_f} = \mathbf{v_i} + \mathbf{at}$ Solution: $\mathbf{V_f}$ = 25 m/s + (8m/s^2 x 5s) $\mathbf{V_f}$ = 25 m/s + 40 m/s $\mathbf{V_f}$ = 65 m/s
Required: $\mathbf{v_f}$ =?	

B. Teacher's Remarks	*Note observations on any of the following areas:*	**Effective Practices**	**Problems Encountered**	The teacher may take note some observations related to the effective practices and problems encountered after utilizing the different strategies, materials used, learner engagement and other related stuffs. They may also suggest ways to improve the different activities explored/ lesson exemplar.
	strategies explored			
	materials used			
	learner engagement/ interaction			
	others			

C. Teacher's Reflection	*Reflection guide or prompt can be on:* ▪ *<u>principles behind the teaching</u>* *What principles and beliefs informed my lesson?* *Why did I teach the lesson the way I did?* ▪ *<u>students</u>* *What roles did my students play in my lesson?* *What did my students learn? How did they learn?* ▪ *<u>ways forward</u>* *What could I have done differently?* *What can I explore in the next lesson?*	*Teacher's reflection in every lesson conducted/ facilitated is essential and necessary to improve practice. You may also consider this as an input for the LAC sessions.*