

Lesson Exemplar for Science

Quarter 1

Lesson

2

Lesson Exemplar for Science 4
Quarter 1: Lesson 2 (Week 2)
S.Y. 2024-2025

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SCIENCE (CHEMISTRY) / QUARTER 1 / GRADE 4

I. CURRICULUM CONTENT, STANDARDS, AND LESSON COMPETENCIES

A. Content Standards	Science inventions have brought about major changes to our daily lives.
B. Performance Standards	By the end of the quarter, learners describe the chemical properties of materials and their changes. They demonstrate an understanding that science processes can solve everyday problems and use creativity and determination to provide examples. They exhibit objectivity and open-mindedness in gathering information related to environmental issues and concerns in the community.
C. Learning Competencies and Objectives	<i>Learning Competency</i> 1. Lesson Objective <i>Use information from home or the local community to identify a scientific invention and explain its impact on their everyday life.</i>
D. Content	Importance and impact of inventions on everyday life
E. Integration	Classifying (Classification)

II. LEARNING RESOURCES

Vooks. (2022, March 10). *Famous Inventions for kids! / Animated Read Aloud History and Science / Vooks Narrated storybooks* [Video]. YouTube.

https://www.youtube.com/watch?v=MEpTX_EujRs.

III. TEACHING AND LEARNING PROCEDURE		NOTES TO TEACHERS																						
A. Activating Prior Knowledge	DAY 1	<p>Note: By this time, the list of the objects they identified during the start of the class last week should still be posted and the list updated.</p> <p>Based on the inventions discussed the previous week, you will choose at least ten objects that students find familiar.</p> <p>NOTE: In the choice of the invention, make sure the following categories are at least represented.</p> <p>A. Health B. Transportation C. Education D. Farming/Agriculture E. Household F. Communication G. Entertainment</p> <p>Guide for the Teacher:</p> <ul style="list-style-type: none">• Projector• Cell phone• Refrigerator• Laptop• Plane• Electronic mosquito repellant																						
	Short Review (10 Minutes)																							
	Guess what? The teacher describes one invention previously discussed and your role is to guess which invention it is from the list of inventions below.																							
	<table><tr><th colspan="2">WORD LIST</th></tr><tr><td>Plane</td><td>Erythromycin</td></tr><tr><td>Jeepney</td><td>Laptop</td></tr><tr><td>Cellphone</td><td>television</td></tr><tr><td>refrigerator</td><td>stove</td></tr><tr><td>plastic cup</td><td>steamboat</td></tr><tr><td>projector</td><td>aircraft propellers</td></tr><tr><td>light bulb</td><td>burglar alarm</td></tr><tr><td>solar pump</td><td>Vazbuil Modular Housing</td></tr><tr><td>electronic mosquito repellant</td><td>fire truck called Patriot</td></tr><tr><td colspan="2">electronic door opener</td></tr></table>		WORD LIST		Plane	Erythromycin	Jeepney	Laptop	Cellphone	television	refrigerator	stove	plastic cup	steamboat	projector	aircraft propellers	light bulb	burglar alarm	solar pump	Vazbuil Modular Housing	electronic mosquito repellant	fire truck called Patriot	electronic door opener	
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<p>The list presents some of the inventions made mainly by Filipinos. Your teacher will describe some of the inventions on the list, and you are to identify which one it is.</p> <p>You are to write the name of the invention in your Science notebook.</p> <p>1. Feedback (Optional) Remember the assignment you had on sharing the invention with your family members? Which invention did you share with them?</p>																								

<p>H. Establishing Lesson Purpose</p>	<p>1. Lesson Purpose</p> <p>At the end of the lesson, the learners will be able to:</p> <ol style="list-style-type: none"> classify some of the inventions in terms of the areas of human life this has improved or helped. <p><i>Instructions to the learners:</i></p> <ol style="list-style-type: none"> You get your bag and pull out at least 15 things you carried today. List those you have identified. <div data-bbox="465 491 1644 842"> <div data-bbox="465 491 831 842"> <p>notebook pencil book</p> </div> <div data-bbox="864 491 1229 842"> <p>wallet coins</p> </div> <div data-bbox="1274 491 1644 842"> <p>fan umbrella</p> </div> </div> <ol style="list-style-type: none"> Group the objects into at least three groupings (Use Activity 1 When you are done, share it with your seatmate and make a drawing. An example would be, Explain why you grouped the things you have in your bags that way. Each of you will have different ways and reasons for doing it. <p>This week, you will try to classify/group the different inventions into what area of human life this will be beneficial.</p>	<p>Say: “Today, we will look into how varied inventions are and how this has helped the different areas of our lives.”</p> <p>The learner will be instructed to list at least 15 things they carried in their bags. After they have made a list, they will classify the objects based on how they group the way to group the objects.</p> <p>The learners then share their basis for classifying the objects and why they chose such categorization.</p>
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2. Unlocking Content Vocabulary:

WHAT'S THE WORD

Choose from the list below the words described. Write your answers in Science Notebook.

Health
Transportation
Education
Agriculture
Household
Communication
Entertainment

1. It is the movement of people and goods from place to place.
2. It is the gathering of information about the world and oneself.
3. It is a state of complete physical, mental, and social well-being, not merely the absence of disease or infirmity."
4. It includes both growing and harvesting crops and raising animals or livestock.
5. It is when people exchange various forms of meaning, such as ideas and information, through a common system of symbols.
6. It is a form of activity that holds the attention and interest of an audience or gives pleasure and delight.
7. It refers to a family or group of people living together.

The teacher will write the following words on the blackboard: Health, Transportation, education, agriculture, household, communication, and entertainment.

Learners will prepare their Science notebooks and answer the teacher's questions.

They will identify which of the words listed on the board was described by the teacher.

WHAT'S THE WORD

1. Transportation
2. Education
3. Health
4. Agriculture
5. Communication
6. Entertainment
7. Household

Discuss each word and clarify the meaning when all the words have been identified.

Learners are then asked to give some examples.

	Now to understand these meanings better, you will give at least 5 examples of an invention under each category.																													
I. Developing and Deepening Understanding	<p>DAY 2</p> <p>1. Explicitation (30 minutes)</p> <p>Can you remember this list we had yesterday? What other inventions do we want to be added to this list?</p> <table><tr><td>Plane</td><td>Erythromycin</td><td>plastic cup</td><td>aircraft</td></tr><tr><td>Laptop</td><td>Cellphone</td><td>projector</td><td>propellers</td></tr><tr><td>refrigerator</td><td>stove</td><td>solar pump</td><td>burglar alarm</td></tr><tr><td>steamboat</td><td>Jeepney</td><td>light bulb</td><td>television</td></tr><tr><td colspan="2">Vazbuil Modular Housing</td><td colspan="2">electronic mosquito repellant</td></tr><tr><td colspan="2">fire truck called Patriot</td><td colspan="2">electronic door opener</td></tr><tr><td colspan="4">Marex X-10</td></tr></table> <p>1. Share with your seatmates two of these inventions you found very important to you personally and why. Be ready to share with the class (5 minutes)</p> <p>2. Do Activity 2_ in Worksheet “Classifying Inventions.”</p> <p>3. Answer the Guide Questions found at the end of the worksheet.</p> <p>REPORTING OUTPUTS:</p> <ul style="list-style-type: none">• After answering the Worksheet, you will be grouped into 7 groups. A leader will be assigned to draw the area to report to the class.• Your group will report the category assigned to you.• The other groups must also check if they have the same classification output.• When the reporting is done, the teacher will give a summary and ask you to share your answers with your groupmates.	Plane	Erythromycin	plastic cup	aircraft	Laptop	Cellphone	projector	propellers	refrigerator	stove	solar pump	burglar alarm	steamboat	Jeepney	light bulb	television	Vazbuil Modular Housing		electronic mosquito repellant		fire truck called Patriot		electronic door opener		Marex X-10				<p>Allow learners to add more inventions they want to be included in the list.</p> <p>Say, “ Today, we will add more inventions you know to this list.”</p> <p>When there are about 40 on the list, ask them what categories they will use to classify the different inventions.</p> <p>You may give them some hints until they realize they can use the vocabulary words as the basis for classifying them.</p> <p>This part of the lesson allows the learners to use the skill to classify objects.</p>
Plane	Erythromycin	plastic cup	aircraft																											
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DAY 3

2. Worked Example

Short Review

Let us answer the following questions: You may raise your hand if you want to answer:

1. What kinds of objects did we try to classify yesterday?
2. Into what categories did we try to classify the objects?

Let us recall the inventions we classified under each category.

This was the output you made yesterday.

GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5
Laptop Projector Television Projector phonograph	Plane Steamboat Jeepney	Banana Ketsup Patis soyalac	Refrigerator Light Bulb Vazbuil Modular Housing Electronic Door Opener	Erythromycin Electronic mosquito repellant 3 in 1 Fire truck called Patriot

3. Lesson Activity

Instructions for the learners

1. You will work on the same category you were assigned to report yesterday.
2. You are given 10 minutes to discuss among yourselves how the inventions have helped the people. You may research about it using your cellphone.
3. You can use the template found in the Worksheet for Activity 3 this week.

Note: This list depends on the objects the learners added to it before the activity on classification.

The early part of the lesson will be for discussion, and then the learners will work in their groups.

GUIDE for the Table

In the Invention Column, they will write all the objects under the assigned category. In the “Before this invention” column, they will discuss what could have been the challenge/problem or difficulty faced by the people then.

Then after the invention, they will state how this has helped people’s lives as they use the object.

	<p style="text-align: center;">BENEFITS FROM THE INVENTION</p> <table border="1" data-bbox="465 264 1668 654"> <thead> <tr> <th data-bbox="465 264 754 331">Invention</th><th data-bbox="754 264 1229 331">Before this Invention</th><th data-bbox="1229 264 1668 331">After the invention</th></tr> </thead> <tbody> <tr><td data-bbox="465 331 754 397"></td><td data-bbox="754 331 1229 397"></td><td data-bbox="1229 331 1668 397"></td></tr> <tr><td data-bbox="465 397 754 462"></td><td data-bbox="754 397 1229 462"></td><td data-bbox="1229 397 1668 462"></td></tr> <tr><td data-bbox="465 462 754 528"></td><td data-bbox="754 462 1229 528"></td><td data-bbox="1229 462 1668 528"></td></tr> <tr><td data-bbox="465 528 754 593"></td><td data-bbox="754 528 1229 593"></td><td data-bbox="1229 528 1668 593"></td></tr> <tr><td data-bbox="465 593 754 654"></td><td data-bbox="754 593 1229 654"></td><td data-bbox="1229 593 1668 654"></td></tr> </tbody> </table> <p style="text-align: center;">REPORTING TO THE CLASS</p> <p>After the group has worked on the assigned tasks, they will choose one member to report their answers to the whole class.</p> <p>This will continue until all have shared their answers.</p>	Invention	Before this Invention	After the invention																<p>This part of the lesson requires the teacher to facilitate the discussion and lead the learners to the following suggested benefits:</p>
Invention	Before this Invention	After the invention																		
<p>J. Making Generalizations</p>	<p>DAY 4</p> <p>Today, you will explore some accidental inventions and how this has benefitted us these days.</p> <p>Watch the video https://youtu.be/qO1brxn1rNs?t=258 15 Accidental Inventions You Can't Imagine Your Life Without</p> <p>You will list the objects and how this has benefitted us these days.</p>	<p>Prepare the Video https://youtu.be/qO1brxn1rNs?t=258 for the learners to view.</p> <p>The learners are to list these products and note how they have helped people today.</p>																		

	<p>1. Learners' Takeaways</p> <p>Share at least 3 of the 15 accidental inventions with your family members. Take note of their reactions to your sharing.</p> <p>2. Reflection on Learning</p> <p>1. If you are to invent something, which issue or problem will you try to address?</p>	
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IV. EVALUATING LEARNING: FORMATIVE ASSESSMENT AND TEACHER'S REFLECTION		NOTES TO TEACHERS
A. Evaluating Learning	<p>DAY 4</p> <p>1. Formative Assessment</p> <p>Search the internet for documentation of an invention and inventor you think you will also be doing if you are given a chance. You will share this in class.</p> <p>Multiple Choice: Choose the letter of the correct answer from the given options and write your choice in CAPITAL letters. Answers will be written on a piece of paper and submitted to your teacher.</p> <p>1. Which of the following inventions has greatly changed the way people communicate with each other? a. laptop b. television c. cell phone d. projector</p> <p>2. Which of the following contributed to the improvement of health? a. electronic mosquito repellant b. electronic door opener c. jeepney d. steamboat</p>	<p>The teacher may opt to give a 10-item Multiple-choice quiz for this.</p> <p>ANSWER KEY</p> <p>1. D 2. A 3. B 4. D 5. D 6. A 7. C 8. A 9. A 10. C</p>

	<p>3. Identify from the list below, which DOES NOT belong.</p> <ul style="list-style-type: none"> a. patis b. video phone c. soyalac d. banana ketchup <p>4. The following are examples of inventions in agriculture EXCEPT one, which is it?</p> <ul style="list-style-type: none"> a. soyalac b. banana ketchup c. tractor d. jeepney <p>5. Which of the following refers to the exchange of various forms of meaning, such as ideas and information, through a common system of symbols?</p> <ul style="list-style-type: none"> a. Health b. Agriculture c. Education d. Communication <p>6. Which of the following refers to complete physical, mental, and social well-being, not merely the absence of disease or infirmity?</p> <ul style="list-style-type: none"> a. Health b. Agriculture c. Education d. Communication <p>7. Identify from the list below, which DOES NOT belong.</p> <ul style="list-style-type: none"> a. refrigerator b. stove c. projector d. burglar alarm <p>8. Identify from the list below, which DOES NOT belong.</p> <ul style="list-style-type: none"> a. Alexander Graham Bell 	
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	b. Agapito Flores c. Gregorio Zara d. Daniel Dingel 9. Which of the following will you use to help you in your studies? a. laptop b. projector c. television d. video phone 10. Who is known as the “Father of Video conferencing”? a. Alexander Graham Bell b. Agapito Flores c. Gregorio Zara d. Daniel Dingel 2. Homework (Optional)			
B. Teacher’s Remarks	<i>Note observations on any of the following areas:</i>	Effective Practices	Problems Encountered	
	<i>strategies explored</i>			
	<i>materials used</i>			
	<i>learner engagement/ interaction</i>			
	<i>others</i>			
C. Teacher’s Reflection	<i>Reflection guide or prompt can be on:</i> <ul style="list-style-type: none"> <i><u>principles behind the teaching</u></i> <i>What principles and beliefs informed my lesson?</i> <i>Why did I teach the lesson the way I did?</i> 			

	<ul style="list-style-type: none"> ▪ <u>students</u> <i>What roles did my students play in my lesson?</i> <i>What did my students learn? How did they learn?</i> ▪ <u>ways forward</u> <i>What could I have done differently?</i> <i>What can I explore in the next lesson?</i> 	
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