



MATATAG

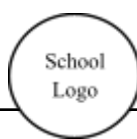
Bansang Makabata



Batang Makabansa



BAGONG PILIPINAS



School
Logo

Name of School:		Quarter:	4th Quarter
Grade Level & Section:	Grade 7	Week:	Week 8 Day 5
Subject:	SCIENCE	Date and Time:	
Topic:		Teacher:	

I. CONTENT, STANDARDS AND LEARNING COMPETENCIES		ANNOTATIONS
A. CONTENT STANDARDS	The learners learn that: 1. Solar energy influences the atmosphere and weather patterns	
B. PERFORMANCE STANDARDS	By the end of the quarter, learners will use reliable scientific information to identify and explain how solar energy influences the atmosphere and weather systems of the Earth. They will also use such information to appreciate and describe the dominant processes that affect the climate of the Philippines.	
C. LEARNING COMPETENCIES	<p>Make a physical model or use drawings to demonstrate how the tilt of the Earth relative to its orbit around the Sun affects the intensity of sunlight absorbed by different areas of Earth over a year.</p> <p>Explain how solar energy contributes to the occurrence of land and sea breezes, monsoons, and the Intertropical Convergence Zone (ITCZ).</p> <p>Lesson Objectives:</p> <ol style="list-style-type: none"> 1. Explain how topography affects climate. 2. Differentiate the windward and leeward sides of the mountains. 3. Explain the occurrence of land breezes and sea breezes. 4. Explain the role of solar energy in driving processes that contribute to the formation of ocean currents. 	

I. CONTENT

The Tilt of the Earth and Its Effect on Earth's Climate

II. LEARNING RESOURCES

A. REFERENCES

B. OTHER LEARNING RESOURCES

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- Pepito, Leah Joy Desamparado-Walan, (2020). Science – Grade 7 Learner's Module First Edition. DepEd – Instructional Materials Council Secretariat (DepEd-IMCS).
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III. TEACHING AND LEARNING PROCEDURE		
BEFORE/PRE-LESSON PROPER		
ACTIVATING PRIOR KNOWLEDGE		
LESSON PURPOSE/IN TENTION		
LESSON LANGUAGE PRACTICE		
DURING/LESSON PROPER		
READING THE KEY IDEA/STEM		
DEVELOPING and DEEPENING UNDERSTANDI NG OF THE KEY IDEA/STEM		
AFTER AFTER/POST-LESSON		
MAKING GENERALIZA TIONS AND ABSTRACTIO NS		

EVALUATING LEARNING	<p>Multiple-Choice Questions: Encircle the letter of the best answer.</p> <p>1. Which statement BEST describes topography? A. It is the total distance above sea level. B. It is the side of the mountain that experiences floods. C. It is the curve of the earth and the distance from the equator. D. It is an area's physical attributes, surface shapes, and features.</p> <p>2. Which part of the mountain has more vegetation? A. top B. leeward C. sideward D. windward</p> <p>3. Which BEST describes the leeward side of a mountain? A. The side of the mountain that experiences floods. B. The side of the mountain that receives less precipitation. C. The side of the mountain that receives more precipitation. D. The side of the mountain that experiences more vegetation.</p> <p>4. How do oceans affect the climate of an area? A. The ocean absorbs the solar radiation. B. Ocean currents act much like a conveyor belt. C. The ocean helps to distribute heat around the globe. D. All of the above.</p> <p>5. Why do mountainous areas generally have colder climates than the surrounding land? Because of ... A. higher altitude B. higher latitude C. far from the ocean D. far from the lowland</p> <p>6. What happens to the temperature as you go to the top of a mountain? A. does not change.</p>	<p>Answer Key:</p> <p>1. D 2. D 3. B 4. D 5. A 6. C 7. B 8. C 9. C 10.B 11.D 12.B 13.B 14.A 15.B</p>

- B. temperature increases
- C. temperature decreases
- D. temperature goes up and down.

7. How does higher altitude affect the climate of an area?

- A. The closer you get to the equator, the hotter it gets.
- B. The higher you go above sea level, the colder it gets.
- C. The farther you get from the equator, the colder it gets.
- D. The process by which heat from the sun is trapped near Earth's surface.

8. Land heats and cools faster than the sea. Therefore, coastal areas have a lower Temperature range than those inland. Which factor affects the temperature of an area?

- A. winds
- B. altitude
- C. distance from the sea
- D. elevation from the sea

9. Some areas are drier and warmer than surrounding flatlands because of mountains and valleys. What factor affects the climate?

- A. elevation
- B. latitude
- C. topography
- D. vegetation

10. What is the basis of classifying an area's climate?

- A. air pollution, wind, and temperature
- B. precipitation, temperature, and wind
- C. topography, wind, and water cycle
- D. water cycle, wind, and precipitation

11. When moist winds approach a mountain, these often drop rain as winds rise over the hill and come down on the other side. As the air comes down the leeward side, it warms, and expands. How does this phenomenon affect the leeward side of the mountain?

- A. The leeward side of the mountain is cooler and wet.
- B. The leeward side of the mountain is cooler and drier.
- C. The leeward side of the mountain is warmer and wet.
- D. The leeward side of the mountain is warmer and drier.

12. During summer, many people visit Baguio because of the cold weather. What do you think makes Baguio cold?

- A. latitude
- B. altitude
- C. topography
- D. distance from the ocean

13. Why do mountain climbers bring thick jackets when they go up?

- A. The temperature increases as the altitude increases.
- B. The temperature decreases as the altitude increases.
- C. The altitude increases as the temperature increases.
- D. The altitude decreases as the temperature increases.

14. How does the windward side differ from the leeward side of a high land?

- A. The windward receives more precipitation than the leeward.
- B. The windward side receives more heat than the leeward side.
- C. The leeward side has more vegetation than the windward side.
- D. The leeward side receives more precipitation than the windward side.

15. A diagram illustrating the movement of an air mass over a mountain is shown.

How does the air in A differ from the air in B?



- A. The air at A is drier than at B.
- B. The air at A is colder than at B.
- C. The air at A is moving faster than at B.
- D. The air at A is more polluted than at B.

ADDITIONAL ACTIVITIES FOR APPLICATION OR REMEDIA TION (IF APPLICABLE)		
REMARKS		
REFLECTION		

Prepared by:

Subject Teacher
Teacher

Reviewed by:

Master Teacher/Head