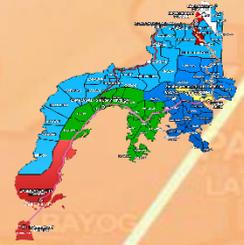




Republic of the Philippines
Department of Education
Regional Office IX, Zamboanga Peninsula



4



Zest for *P*rogress

Zeal of *P*artnership

SCIENCE

Quarter 4 Module 5

Using Weather Instruments

- JANUARY**
Makugihon
- FEBRUARY**
Mahigugmaon
- MARCH**
Matinabungan
- APRIL**
Matinahuron
- MAY**
Mahapsay og Malinpyog
- JUNE**
Maabtik og Musunod sa Oksaklong Oras
- JULY**
Maantigo og Maabilidad
- AUGUST**
Maginhunahunaon para sa Uban
- SEPTEMBER**
Madaginoton
- OCTOBER**
Matinud-anon
- NOVEMBER**
Masaligan
- DECEMBER**
Maalampon



Name of Learner: _____

Grade & Section: _____

Name of School: _____



What I Need to Know

To predict the weather, there are weather instruments used in giving data, in this lesson, you will be learning the different weather instruments.

- Use weather instruments and describe the different weather components in a weather chart **S4ES-IVa-2**



What's In

Hey kid! Are you excited to learn new lesson? Come on, answer the activity?

Score:

5

“Guess what”

Direction: Unscramble the letters to form the word. Write your answer on the space provided.

_____ **1. T H A W E R E** ----- the atmospheric condition of air temperature, wind speed and wind direction.

_____ **2. Y I W D N**----- wind blows hard.

_____ **3. M E I T**----- moment or period for something to happen

_____ **4. D W I N** ----- moving air.

_____ **5. P M E A R T E U E R** ---hotness or coldness.

ACTIVITY 1: “How Do You Use Me?”

One of the ways to predict the weather is to measure the temperature. A thermometer is used to measure air temperature. A room thermometer has numbers etched on each side. The left side shows the Celsius reading. Its highest number is 100 while its lowest is 0. The number near the end of the red column tells the temperature of the air.

A thermometer may bear the Fahrenheit, the Celsius scale, or both. Air temperature is read in degrees Fahrenheit or °F and degrees Celsius or °C. There are other kinds of thermometer such as clinical, room and scientific.

Temperature is the hotness and coldness of air around us. It differs from place to place. The angle at which the sun’s rays strike the surface affects the temperature of a place. Places near the equator have high temperature because they receive the direct rays of the sun. Temperature is at its lowest in the morning and is high on a fine weather.

The time of the day and time of the year also affect the air temperature.

Score:

5

Directions: ENCIRCLE the letter of the correct answer.

1. Which instrument is used to measure air temperature?
A. Anemometer C. Thermometer
B. Barometer D. Hydrometer
2. The left side of a thermometer shows the reading in _____?
A. Fahrenheit C. Mercury
B. Celsius D. Degrees
3. What do °F and °C mean?
°F means _____ °C means _____
4. The hotness and coldness of air around us are _____?
A. Temperature B. Degrees
B. Thermometer D. Weather
5. Which places have a high temperature?
A. far from the equator C. Mid of the equator
B. near the equator D. back of the equator



What's New

Hey kid! Welcome to the next activities?

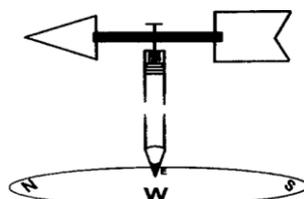
Score:

5

ACTIVITY 3: "How Can You Tell the Direction of the Wind?"

What to do:

1. Cut slit in each end of a drinking straw. Take a straight BBQ stick, and use scissors to cut a slit on each end. Make each slit about 1 cm (or ½ inch) long.
2. Cut cardboard into a triangle and a square. Make the triangle a wide "arrow" shape (isosceles). And keep it smaller than the square. Make the arrow about 5cm (2 inch) long and the square about 7cm (2.75 inch) on each side.
3. Stick the paper triangle and square in to the slots on the straw. Put the triangle on one end, so it makes a point like an arrow. Put the square into the other slot.
4. Fill a container with small rocks. Take a plastic drinking cup or plastic container with a lid/cover. Fill this about half-way full with pebbles, sand or other heavy objects that will keep the wind vane from slipping. Put on the lid/cover tightly. Mark N, E, W, S on the side of the plastic cup as shown in the picture.
5. Stick a pencil through the bottom of the container. Pick a pencil with a rubber (an eraser) at one end. Turn the plastic container upside down and make a hole, writing side down, and into the pebbles or sand to keep it from slipping.



6. Stick a pin through the straw into the pencil rubber (the eraser). Stick it through the center of the drinking straw, then into the pencil rubber (the eraser).

Guide Questions:

1. What happened to the arrow as the wind blew?
2. Which direction did the tail of your wind vane take?
3. Did the direction of the wind change after some time?



What is It

We gather information about weather conditions by using the different weather Instruments. The air temperature around us is measured by a thermometer. We can also tell it by observing the direction and speed of the wind. The wind is moving air caused by the unequal heating of the earth's surface. When air is heated, it rises, and its density decreases and forms a low pressure. The cooler air becomes denser and moves from high pressure to lower pressure. Temperature is at its lowest in the morning and is high in fine weather.

A Wind vane shows wind direction. The four letters E, W, N, S, represent the four directions: East, West, North, and South. If the Arrowhead of the wind vane faces the north direction, we say, the wind is blowing north. It is Northwind. If it blows from the east, it is the East wind.

The speed of the wind may be fast or slow. Sometimes it blows gently, but at times it blows fast. An Anemometer measures wind speed.



What's More

You have come a long way in your module! Now answer the following activities. Good luck!

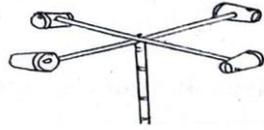
Score:

2

ACTIVITY 4

What to do:

1. Get the four cups of the same sizes and four sticks of the same sizes and length.
2. Attach one cup to each of the sticks.
3. Mount the four pieces of wood on a pole by means of a long, thin nail. Make the hole bigger than the nail so that the sticks and the cups can easily spin.
4. Place the pole on a wooden base by nailing it so that the pole can stand.
5. Turn on the electric fan facing the improvised anemometer.
7. Adjust the button to change speed of the electric fan.
8. Count the number of spins the anemometer makes in two minutes.



Guide Questions:

1. What happened to the movement of the improvised anemometer as the speed of the electric fan was set to fast?
2. How does the improvised anemometer indicate the speed of the wind?



What I Have Learned

Score:

10

Amazing! You reach in this page. Now complete this activity. Come on!

ACTIVITY 5: "COMPLETE ME"

Directions: Complete the statement below by choosing the answer in the box.

Time	wind	air	wind vane	anemometer
fine weather	morning	North	east wind	Fahrenheit
Celsius	speed	fast	slow	thermometer
Temperature	100	0	hotness	coldness

The air _____ around is measured by a _____. A room thermometer has numbers etched on each side. The left side shows the _____ reading. Its highest number is _____ while its lowest is _____. A thermometer may bear the _____, the _____ scale, or both. _____ temperature is read in degrees Fahrenheit or °F and degrees Celsius or °C. Temperature is the _____ and _____ of air around us. The _____ of the day and time of the year also affect the air temperature.

Temperature is at its lowest in the _____, and is high on a _____. A _____ shows wind direction. The four letters E, W, N, S represent the four directions: East, West, North, South. If the arrowhead of the wind vane faces the _____ direction, we say, the is blowing North. If it blows from the East, it is _____.

The _____ of the wind may be _____ or _____. Sometimes it blows gently but at time it blows fast. An _____ measures wind speed.



What I Can Do

1. Explain how to use and interpret of a classroom thermometer.
2. How can you measure wind speed?
3. Did wind direction stay the same all the time?



Assessment

Score:

20

Set A

Directions: Encircle the letter of the best answer.

- What instrument measures air temperature?
A. wind vane C. anemometer
B. thermometer D. barometer
- A wind vane tells what components of weather?
A. wind direction C. wind temperature
B. wind speed D. wind rotation
- What instrument measures the speed of the wind?
A. barometer C. anemometer
B. thermometer D. wind vane
- Which device that tells the direction of the wind?
A. thermometer C. barometer
B. wind vane D. anemometer
- When the wind is blowing gently, what weather do we have?
A. fine B. stormy C. windy D. rainy
- During a stormy weather, how does an anemometer spin its cups?
A. very slow. C. very fast
B. moderately slow. D. moderately fast
- How does the wind move during fair weather?
A. The wind moves gently. C. The wind moves violently.
B. The wind moves slowly. D. The wind blows hard.
- Which is TRUE about weather?
A. Weather remains the same in same places.
B. It changes from day to day in any places.
C. It is always the same in hot countries.
D. It remains the same the whole day.
- At what time of the day is the temperature is at its highest?
A. morning C. early dawn
B. noon time D. night time
- A wind is blowing from the east going to the west. What is its name?
A. west wind C. north wind
B. east wind D. south wind

Set B

Directions: Match column A with its description in column B.

- | A | B |
|-------------------------|---|
| ___ 1. Thermometer | A. device that tells the direction of the wind |
| ___ 2. Temperature | B. wind that comes from the north |
| ___ 3. Anemometer | C. instrument that measures air temperature |
| ___ 4. wind vane | D. a moving air |
| ___ 5. North wind | E. the hotness and coldness of the air Around us. |
| ___ 6. °F | F. instrument that measures the speed of the wind |
| ___ 7. Weather forecast | G. means Fahrenheit |
| ___ 8. Wind | H. news about the weather |
| ___ 9. Fine weather | I. the temperature is low |
| ___ 10. Rainy days | J. the temperature is high |

Answer Key Q4 M5

Answer Key	
Guess What	Find Me Game
1. weather	6. Anemometer
2. windy	7. Wind vane
3. time	8. Sunny
4. wind	9. Rainy
5. temperature	10. thermometer
How Do You Use Me?	
1. C	
2. A	
3. Fahrenheit/Celsius	
4. A	
5. B	
What Factors Affect the Day's Temperature?	
1. 12:00 n.m.	
2. 6:00 a.m.	
3. fine weather	
4. rainy	
5. Time and weather conditions affect the day's temperature	
“How Can You Tell the Direction of the Wind?”	
1. It spin	
2. North (answer may vary)	
3. Yes	
Complete Me	
1. temperature	11. Time
2. thermometer	12. Morning
3. Celsius	13. Fine weather
4. 100	14. Wind vane
5. 0	15. North
6. Fahrenheit	16. East wind
7. Celsius	17. Speed
8. air	18. Fast
9. hotness	19. Slow
10. coldness	20. Anemometer
What Can I Do	
1. (A thermometer is used to measure temperature. A room thermometer has number etched on each side. The left side shows the Celsius reading. Its highest number is 100 while its lowest is 0. The number near the end of the red column tell the temperature of the air.)	
2. Wind speed can be measured by an instrument called anemometer	
3. It changes from time to time	
Assessment	
Set A	Set B
1. B	1. C
2. B	2. E
3. C	3. F
4. B	4. A
5. A	5. B
6. C	6. G
7. A	7. H
8. B	8. D
9. B	9. J
10. B	10. I

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The Footprints Prayer

One night I had a dream. I dreamed that I was walking along the beach with the LORD. In the beach, there were two (2) sets of footprints – one belongs to me and the other to the LORD. Then, later, after a long walk, I noticed only one set of footprints. "And I ask the LORD. Why? Why? Why did you leave me when I am sad and helpless?" And the LORD replied "My son, my son, I have never left you. There was only one (1) set of footprints in the sand, because it was then that I CARRIED YOU!

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<p>Writer: Teody Christie M. Rosales, T-III San Pedro Central Elementary School</p> <p>Editor: Kevin Jhon A. Argones, T-III</p> <p>Reviewer: Mila P. Arao</p> <p>Management Team:</p> <p>DANNY B. CORDOVA, Ed.D, CESO VI Schools Division Superintendent</p> <p>MARIA COLLEEN L. EMORICHA, Ed.D, CESE Assistant Schools Division Superintendent</p> <p>MARIA DIOSA Z. PERALTA CID Chief</p> <p>MA. MADELENE P. MITUDA, Ed.D Education Program Supervisor - LRMDS</p> <p>MILA P. ARAO Education Program Supervisor - Science</p>	<p>OUR EDEN LAND</p> <p>Here the trees and flowers bloom, Here the breezes gently blow, Here the birds sing merrily, And liberty forever stays,</p> <p>Here the Badjaos swam the seas, Here the Samals live in peace, Here the Tausogs thrive so free, With the Yakans in unity.</p> <p>Gallant men And Ladies fair, Linger with love and care, Golden beams of sunrise and sunset, <i>Are visions you'll never forget.</i> <i>Oh! That's Region IX...</i></p> <p>Hardworking people abound, Every valley and dale Zamboangenos, Tagalogs, Bicolanos, Cebuanos, Ilocanos, Subanens, Boholanos, Illongos, All of them are proud and true Region IX our Eden Land.</p> <p>Region IX, our Eden Land.</p>