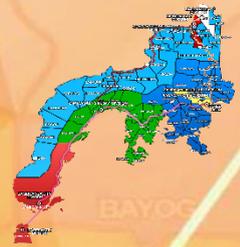


- JANUARY**
Makugihon
- FEBRUARY**
Mahigugmaon
- MARCH**
Matinabugon
- APRIL**
Matinahuron
- MAY**
Mahapsay og Malinpyog
- JUNE**
Maabtik og Musunod sa Ohsakitong Oras
- JULY**
Maantigo og Maabilidad
- AUGUST**
Maginhunahunaon para sa Uban
- SEPTEMBER**
Madaginoton
- OCTOBER**
Matinud-anon
- NOVEMBER**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



Republic of the Philippines
Department of Education

Regional Office IX, Zamboanga Peninsula



Zest for Progress
Zeal of

6

Science

Quarter 4 - Module 7 How Do Planets Differ?



Name of Learner: _____
 Grade & Section: _____
 Name of School: _____



What I Need to Know

This module was designed and written with you in mind. It is here to help you master the concept. The scope of this module permits it to be used in many different learning situations. The language used recognizes the diverse vocabulary level of students. The lessons are arranged to follow the standard sequence of the course.

After going through this module, you are expected to:

- Describe the characteristics of the inner planets in the solar system showing their relative size and their distance from the sun.
- Construct a model of a solar system (inner planets) showing the relative size of the planets and their distances from the sun



What's In

Score
: _____
10

<p>Hey kid! Are you excited to learn new lesson? Come on, answer the activity!</p>
--

ACTIVITY 1: "FILL THIS UP!"

Directions: Fill in the box with the names of the planet following its correct order.

solar system

Saturn	Sun	Neptune	Uranus	Earth	Mars
	Jupiter	Mercury	Venus		

From the picture, what do you think are the inner planets?

Why are they called inner planets?



What's New

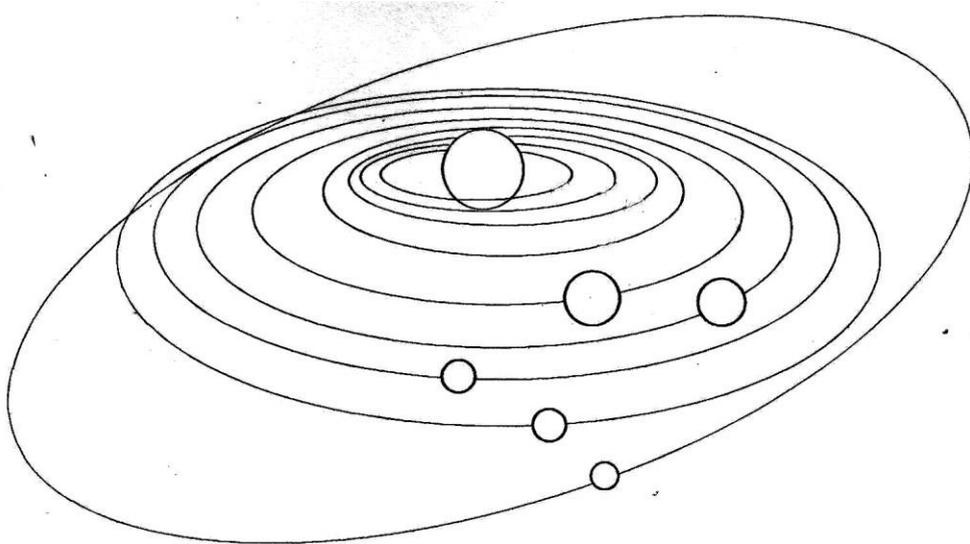
Hey kid! Welcome to the next activity!

ACTIVITY 2: "ARRANGE THE PLANETS"

Directions: Study the information below about the distance of inner planet from the sun.

Planets	Distance from Sun (km.)
Mercury	58 million
Venus	108 million
Earth	150 million
Mars	228 million

- A. Draw an illustration like the one below in your notebook. Arrange the planets according to their distance from the sun based on the given data.



- B. Based on the information given, answer the following questions in your notebook.
- Which inner planet is nearest to the sun?
 - Which inner planet is the third farthest from the sun?
 - Which planet is next to Mercury?
 - What is the distance from Mars to the sun?
 - Which planet is the farthest?

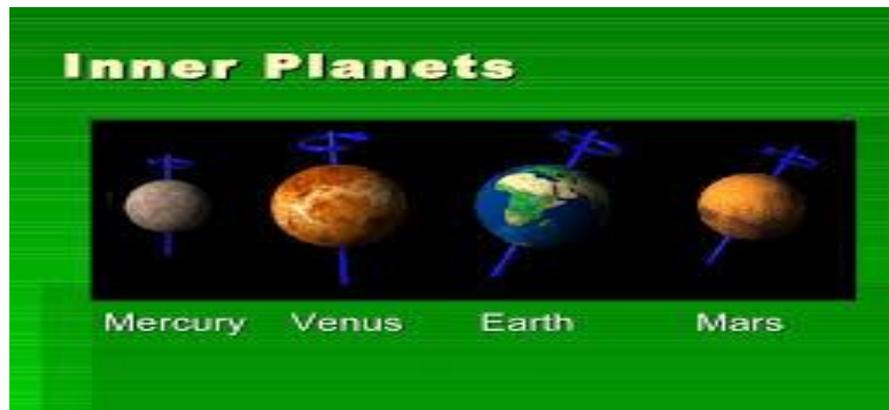


What is It

In addition to your learning, here is the brief explanation about the characteristics of inner planet. Read and understand it!

The Inner Planets

The four inner planets (Mercury, Venus, Mars and Earth) are called **terrestrial planets** because their surfaces are solid (and, as the name implies, somewhat similar to Earth — although the term can be misleading because each of the four has vastly different environments). They're made up mostly of heavy metals such as iron and nickel, and have either no moons or few moons.



Planet	Period of Revolution	Diameter (km.)	Distance from the Sun (km.)	No. of Moons	Additional Characteristics
Mercury	88 days	4,880	58 million	0	<ul style="list-style-type: none"> - It can be seen in the sky at sunrise and sunset. - Only one side of Mercury is facing the sun. This part is very hot. - It is the smallest and nearest planet to the sun - It is less than half of the Earth. - Its surface is rocky and heavily crated because of the meteors crashing into it. -Its rotation is very slow

Venus	225 days	12,100	108 million	0	<ul style="list-style-type: none"> -Earth's twin in terms of size, mass, density though other features are different from the earth. -The brightest planet with 96% CO₂. -The heat from the sun that reaches Venus cannot escape into space because it is trapped by the thick clouds that cover it. This thick clouds create a greenhouse effect making Venus the hottest planet in the solar system. - It has very thick atmosphere. - It appears as "evening star" or "morning star"
Earth	365 ½ days	12,756	150 million	1	<ul style="list-style-type: none"> - The only planet to sustain life because it has an atmosphere. - It rotates on its axis - It revolves on an orbit around the sun.
Mars	687 days	6,787	228 million	2	<ul style="list-style-type: none"> - It is reddish in color. - It is cold in Mars. - It has white caps on its poles which is ice.



What's More

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

Score:

ACTIVITY 3: "DIFFERENTIATE!"

Directions: Differentiate the characteristics of the following planets by filling out the chart with the needed information.

Planets	Distance from the sun	Diameter	No. of Moons	Period of Revolution
Mercury				
Venus				
Earth				
Mars				



What I Have Learned

ACTIVITY 4: “THINK, THINK”

Directions: Think of your answer to each question about the activity. Then write it on the lines.

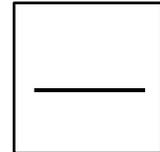
1. How do the terrestrial planets differ from one another in terms of size and distance from the sun?

2. In what ways are terrestrial planets similar?



What I Can Do

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



ACTIVITY 5: “CONSTRUCT ME”

(Note: This activity is to be submitted in two weeks’ time when the activity for Module 8 is already incorporated to it.)

Directions: Construct a model of a solar system with the inner planets showing their relative sizes and distances from the sun. You can use Styrofoam balls or cardboard for the planets; and barbeque stick to show their distances from the sun.

The following are the suggested color and size of the planets:

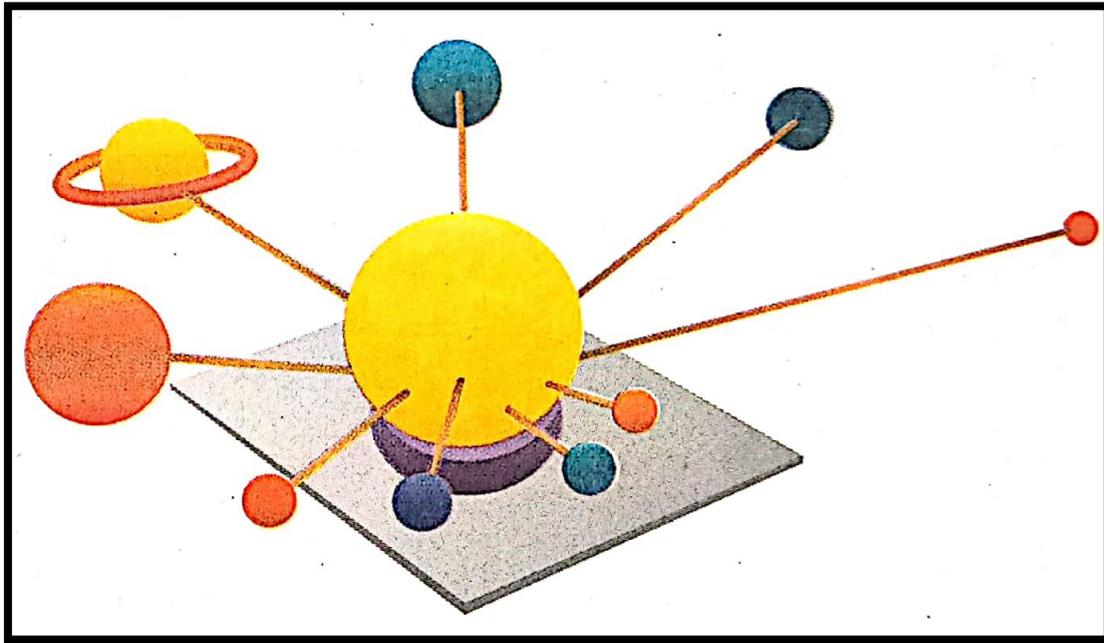
-  Mercury (orange) 3 cm
-  Venus (yellow) 5 cm
-  Earth (blue) 5 cm
-  Mars (red) 4 cm
-  Sun (yellow) 25 cm

Name each of the planet correctly.

The following is the scale to be used to show the planets’ distance from the sun.

Distance from the Sun	Equivalent in inches
0 – 50 million km	2 in
51 – 100 million km	4 in
101 – 150 million km	6 in
151 – 200 million km	8 in
201 – 250 million km	10 in

Sample Output:



RUBRICS

	Points			
	5	4	3	2
Correctness	All the planets are in correct order, distinct physical features were shown correctly.	All the planets are in correct order, few physical features are shown.	Some of the planets are not in correct order, no physical features are shown.	Planets are not in correct order; no physical features are shown.
Originality/ Creativity	Work shows best effort.	Work shows a lot of effort.	Work shows a little effort.	Work shows no effort
Proportion	All of the planets are correctly proportioned	Most of the planets are correctly	There's a couple of mistakes with the proportion of the planets	Planets are not correctly proportioned.
Distance	Distances of all planets are correct based on the given scale.	Distances of most planets are correct based on the given scale.	There's a couple of mistakes with the distance of the planets based on the given scale	Distances of the planets are all incorrect based on the given scale.



Assessment

Hey kid! You are about to end this fun module. But, take this assessment to assess if you understand your lesson. Good luck!

Directions: Encircle the letter of the best answer.

1. Which of the following inner planets rotates the fastest?
 - A. Mercury
 - B. Venus
 - C. Earth
 - D. Mars

2. Which is the smallest planet in the solar system.
 - A. Mercury
 - B. Earth
 - C. Uranus
 - D. Mars

3. Planet Mars is bigger than Earth.
 - a. True
 - b. False
 - c. Maybe
 - d. None of the above

4. Which planet has almost the same size with Earth?
 - A. Jupiter
 - B. Saturn
 - C. Venus
 - D. Uranus

5. Why is Venus the hottest planet?
 - A. It is very near to the sun.
 - B. It has volcanic craters.
 - C. Carbon dioxide in its atmosphere traps heat.
 - D. Its orbit is most tilted from the plane of revolution of most of the planet.

6. The inner planet is also known as _____.
 - A. Jovian Planets
 - B. Red Planet
 - C. Terrestrial planets
 - D. Morning planet

7. How many hours does it take before planet Earth complete one rotation?
 - A. 6 hours
 - B. 12 hours
 - C. 18hours
 - D. 24 hours

8. Which are the inner planets?
 - A. Mars, Jupiter, Saturn, Earth
 - B. Mercury, Venus, Earth, Mars
 - C. Jupiter, Saturn, Uranus, Neptune
 - D. Pluto, Mars, Jupiter, Earth

9. How many are the inner planets?
- A. 5
 - B. 6
 - C. 4
 - D. 3
10. Why do certain planets orbit the sun longer than the other planets?
- A. Planets differ in the period of rotation.
 - B. Certain planets naturally move slower.
 - C. Planets that are near the sun have shorter orbits.
 - D. It depends upon the size of the planet.

REFERENCES

Books

CYBERSCIENCE (*Worktext in Science and Teachnology 6*)
<https://lrmds.deped.gov.ph/> (K to 12 Resources)

Science in our World
Author Norma M. Abracia, Ed.D

Real Life Science

Answer Key

Science 6 Quarter 4 – Week 7

ASSESSMENT

1. A
2. A
3. B
4. C
5. C
10. C

6. C
7. D
8. B
9. C

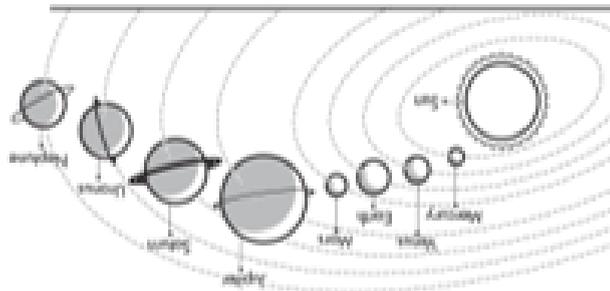
Planets	Distance from the sun	Diameter (km)	No. of Moons	Period of Revolution
Mercury	58 million	4880	0	88 days
Venus	108 million	12,100	0	225 days
Earth	150 million	12,756	1	365 days
Mars	228 million	6787	2	687 days

What's More- Activity 3

1. Mercury is nearest to the sun.
2. Earth is the third farthest from the sun.
3. Venus is next to Mercury.
4. 228 m. km is the distance from Mars to sun.
5. Mars is the farthest inner planet from the sun.

What's New- Activity 2

- The inner planets are Mercury, Venus, Earth, Mars
- They are called inner planets because they orbit closest to the sun.



What's In- Activity 1

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Region IX: Zamboanga Peninsula Hymn – Our Eden Land

Here the trees and flowers bloom
Here the breezes gently Blow,
Here the birds sing Merrily,
The liberty forever Stays,

Here the Badjaos roam the seas
Here the Samals live in peace
Here the Tausogs thrive so free
With the Yakans in unity

Gallant men And Ladies fair
Linger with love and care
Golden beams of sunrise and sunset
Are visions you'll never forget
Oh! That's Region IX

Hardworking people Abound,
Every valleys and Dale
Zamboanguenos, Tagalogs, Bicolanos,

Cebuanos, Ilocanos, Subanons, Boholanos, Ilongos,
All of them are proud and true
Region IX our Eden Land

Region IX
Our..
Eden...
Land...

I Am a Filipino, by Carlos P. Romulo

I am a Filipino—inheritor of a glorious past, hostage to the uncertain future. As such I must prove equal to a two-fold task—the task of meeting my responsibility to the past, and the task of performing my obligation to the future.

I sprung from a hardy race, child many generations removed of ancient Malayan pioneers. Across the centuries the memory comes rushing back to me: of brown-skinned men putting out to sea in ships that were as frail as their hearts were stout. Over the sea I see them come, borne upon the billowing wave and the whistling wind, carried upon the mighty swell of hope—hope in the free abundance of new land that was to be their home and their children's forever.

I am a Filipino. In my blood runs the immortal seed of heroes—seed that flowered down the centuries in deeds of courage and defiance. In my veins yet pulses the same hot blood that sent Lapulapu to battle against the first invader of this land, that nerved Lakandula in the combat against the alien foe, that drove Diego Silang and Dagohoy into rebellion against the foreign oppressor.

The seed I bear within me is an immortal seed. It is the mark of my manhood, the symbol of dignity as a human being. Like the seeds that were once buried in the tomb of Tutankhamen many thousand years ago, it shall grow and flower and bear fruit again. It is the insignia of my race, and my generation is but a stage in the unending search of my people for freedom and happiness.

I am a Filipino, child of the marriage of the East and the West. The East, with its languor and mysticism, its passivity and endurance, was my mother, and my sire was the West that came thundering across the seas with the Cross and Sword and the Machine. I am of the East, an eager participant in its spirit, and in its struggles for liberation from the imperialist yoke. But I also know that the East must awake from its centuries sleep, shake off the lethargy that has bound his limbs, and start moving where destiny awaits.

I am a Filipino, and this is my inheritance. What pledge shall I give that I may prove worthy of my inheritance? I shall give the pledge that has come ringing down the corridors of the centuries, and it shall be compounded of the joyous cries of my Malayan forebears when first they saw the contours of this land loom before their eyes, of the battle cries that have resounded in every field of combat from Mactan to Tirad Pass, of the voices of my people when they sing:

“I am a Filipino born to freedom, and I shall not rest until freedom shall have been added unto my inheritance—for myself and my children and my children's children—forever.”

