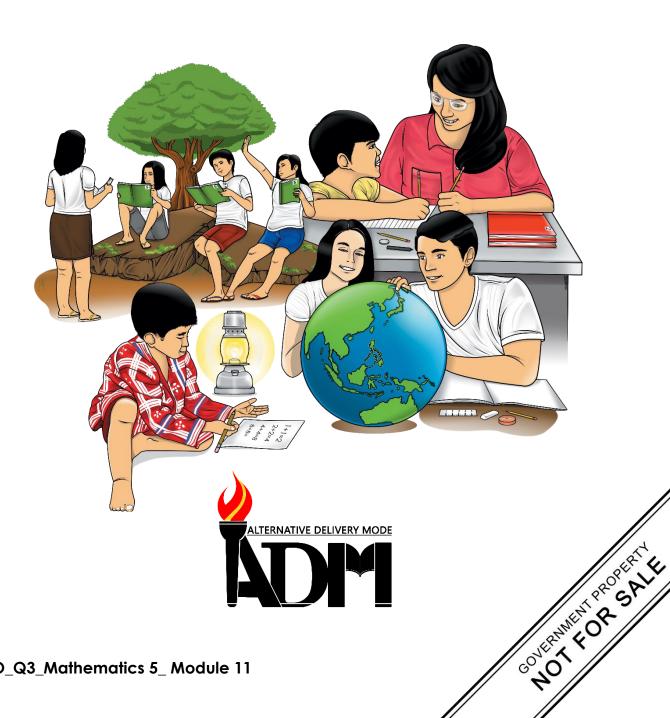




Mathematics

Quarter 3 - Module 11: Visualizing and Describing **Solid Figures**



Mathematics – Grade 5 Alternative Delivery Mode

Quarter 3 – Module 11: Visualizing and Describing Solid Figures

First Edition, 2020

Republic Act 8293, Section 176 states that: No copyright shall subsist in any work of the Government of the Philippines. However, prior approval of the government agency or office wherein the work is created shall be necessary for exploitation of such work for profit. Such agency or office may, among other things, impose as a condition the payment of royalties.

Borrowed materials (i.e., songs, stories, poems, pictures, photos, brand names, trademarks, etc.) included in this book are owned by their respective copyright holders. Every effort has been exerted to locate and seek permission to use these materials from their respective copyright owners. The publisher and authors do not represent nor claim ownership over them.

Published by the Department of Education Secretary: Leonor Magtolis Briones

Undersecretary: Diosdado M. San Antonio

Development Team of the Module

Writer: Ma. Alma M. Galitan

Editor: Danilo Jadulco

Reviewers: Renato S. Cagomoc, Rolando M. Lacbo, Joshua Sherwin T. Lim,

Wilma L. Reyes

Illustrator: Razle L. Jabelo

Layout Artist: Razle L. Jabelo, Cherry Lou O. Calison

Management Team: Ma. Gemma M. Ledesma, Arnulfo R. Balane, Rosemarie M. Guino,

Joy B. Bihag, Ryan R. Tiu, Sarah S. Cabaluna,

Thelma Cabadsan-Quitalig, Elena S. De Luna, Renato S. Cagomoc,

Noel E. Sagayap, Geraldine P. Sumbise, Joshua Sherwin T. Lim

Printed in the Philippines by _____

Department of Education – Region VIII

Office Address : DepEd Regional Office No. 8 Candahug, Palo, Leyte

Telefax : (053)-832-2997

E-mail Address : region8@deped.gpv.ph

Mathematics

Quarter 3 – Module 11: Visualizing and Describing Solid Figures



Introductory Message

This Self-Learning Module (SLM) is prepared so that you, our dear learners, can continue your studies and learn while at home. Activities, questions, directions, exercises, and discussions are carefully stated for you to understand each lesson.

Each SLM is composed of different parts. Each part shall guide you step-by-step as you discover and understand the lesson prepared for you.

Pre-tests are provided to measure your prior knowledge on lessons in each SLM. This will tell you if you need to proceed on completing this module or if you need to ask your facilitator or your teacher's assistance for better understanding of the lesson. At the end of each module, you need to answer the post-test to self-check your learning. Answer keys are provided for each activity and test. We trust that you will be honest in using these.

In addition to the material in the main text, Notes to the Teacher are also provided to our facilitators and parents for strategies and reminders on how they can best help you on your home-based learning.

Please use this module with care. Do not put unnecessary marks on any part of this SLM. Use a separate sheet of paper in answering the exercises and tests. And read the instructions carefully before performing each task.

If you have any questions in using this SLM or any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator.

Thank you.



What I Need to Know

Hi, Mathletes! Our world is filled with solid figures such as balls, boxes, cans, ice cream cones, watermelons, and cabinets among others. In this module, you will be introduced to the various solid figures. You will also understand the similarities and differences among the different solid figures.

Upon studying this module, you will be able to:

visualize and describe solid figures.



What I Know

Good day, everyone! In this section, we will try to find out how much you already know about the contents of this module.

Directions: Choose the letter that names the shape of the given figure. Write the letter on a separate answer sheet.





- A. Cone
- B. Cylinder
- C. Pyramid
- D. Prism



- A. Cone
- B. Cylinder
- C. Prism
- D. Sphere





- A. Cone
- B. Cylinder
- C. Prism
- D. Sphere





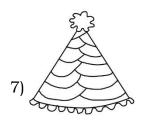
- A. Cube
- B. Rectangular prism
- C. Rectangular pyramid
- D. Sphere



- A. Triangle
- B. Triangular cone
- C. Triangular prism
- D. Triangular pyramid



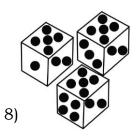
- A. Cone
- B. Sphere
- C. Prism
- D. Pyramid



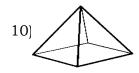
- A. Cone
- B. Prism
- C. Pyramid
- D. Sphere



- A. Cone
- B. Cylinder
- C. Prism
- D. Sphere



- A. Cube
- B. Rectangular prism
- C. Rectangular pyramid
- D. Square pyramid



- A. Square prism
- B. Square Pyramid
- C. Rectangular Pyramid
- D. Rectangular Prism

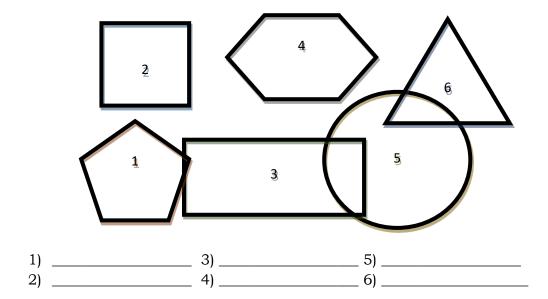
Lesson

Visualizing and Describing Solid Figures



What's In

To start our lesson for today, let us have a short review of shapes. In the illustration, identify the different plane figures shown.



Congratulations! Knowing the different plane figures will be helpful for our lesson.



Read the story below.

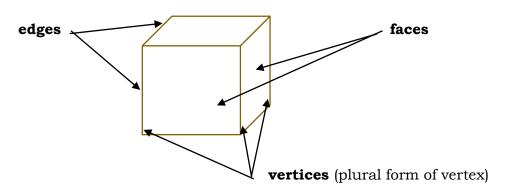
The Lim Family is having a birthday party in their vacation house in Tagaytay. Rico, the eldest son, bought a new soccer ball. His younger sister, Ashley, got a box of chocolate. Mrs. Dancey Lim bought 15 pieces of birthday hats while Mr. Fred Lim bought different groceries like cans of milk and toblerone.

Based on the story above, answer the questions below.

- 1) How many different solid figures can be identified from the items brought by the Lim Family?
- 2) What are those?



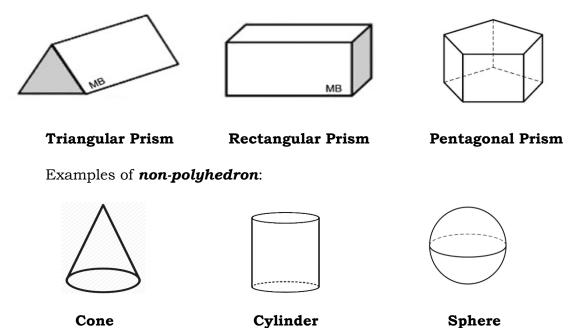
Objects such as balls, boxes and cans are called **solid figures**. **Solid figures** are three-dimensional figures. A **three-dimensional object** has length, width, and height. They may also have **faces**, **edges** and **vertices**. A **face** is the flat surface of a solid figure. An **edge** is where two faces meet.



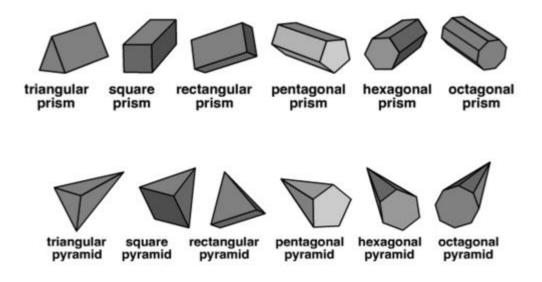
- **Solid figures** are either polyhedron or non-polyhedron.
- A solid is a **polyhedron** if all its faces are polygons, otherwise, it is a non-polyhedron.
- A **polyhedron** may be a prism, a pyramid or a platonic solid. In this module, we will only discuss prisms and pyramids.

- A **prism** is made up of two parallel and congruent bases. The other faces are parallelograms. A prism is named after the shape of its base. If its base is a triangle, it is called a triangular prism. If its base is a pentagon, it is called a pentagonal prism.
- A **pyramid** has only one base, which can be any polygon. The other faces are triangles that meet at a common vertex. A pyramid is also named after the shape of its base. If the base is a square, it is called a square pyramid. If the base is a pentagon, we call it a pentagonal pyramid.

Examples of *polyhedron*:



Below are examples of prisms and pyramids. Notice how the prisms and pyramids are named after the shape of their bases.



Did you understand the lesson now? If you are still confused, please read the definitions again to learn how the solid figures can be named and described.

Now you are going to answer the activity below in order to check if you are able to visualize the solid figures.

Directions: Fill in the table with the correct information.

Solid Figures	Number of			
Solid Figures	Faces	Edges	Vertices	
1)				
2)				
3)				
4)				
5)				



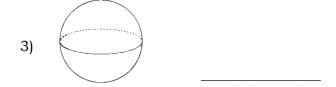
What's More

Activity 1: Who Am I

Directions: Identify the solid figure below. Write your answer on the space provided.





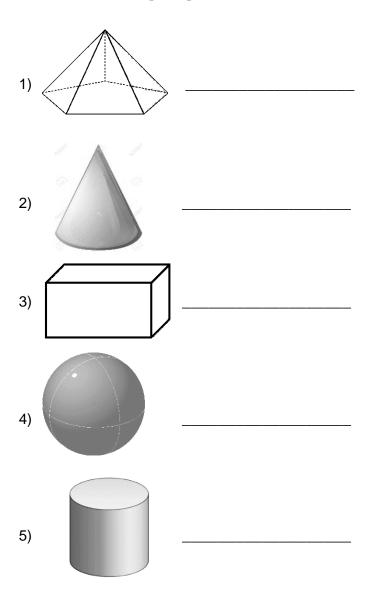




5)

Activity 2: Describe Me

Directions: State whether the figure is a polyhedron or a non-polyhedron. Write the correct answer on the space provided in each item.



Activity 3: Draw Me

Directions: Draw the following solid figures and complete the information needed. Write your answers on a separate answer sheet.

Solid Figure	Number of Edges	Number of Vertices	Number of Faces
1) Rectangular prism			
2) Cube			
3) Triangular pyramid			



Fill in the Blanks

Directions: I of paper.	dentify the word being described. Write your answer on a separate sheet
	1) It refers to point of a solid figure where edges meet2) This is the flat surface of the solid figure3) These are three- dimensional figures4) This is formed when two faces of the solid figure meet5) It is a polyhedron with only one vertex.
00	What Can I Do

Multiple Choice

Directions: Read each statement carefully. Choose the best answer and write your answer on a separate answer sheet.

1)	What is the shape of A. Rectangular pyr B. Prism	· ·	? C. Rectangular pris D. Pyramid	sm
2)	What is the commo	n shape of canned a	goods?	
,	A. Cone	B. Cylinder	-	D. Pyramid
3)	What solid figure is A. Cone	the same shape as B. Cylinder	ū	D. Pyramid
4)	What is the shape of	of a regular die?		
•	A. Prism	_	C. Cube	
	B. Pyramid		D. Square pyramid	
5)	•	has the same sha , and sepak takraw?	pe as the balls us	ed in basketball,
	A. Circle	B. Cylinder	C. Pyramid	D. Sphere



Assessment

This activity will help you check whether you understood the lesson very well.

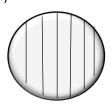
Directions: Choose the letter that names the shape of the given figure. Write the letter on a separate answer sheet.

1)



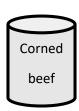
- A. Cylinder
- B. Cone
- C. Prism
- D. Pyramid

2)



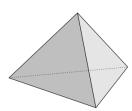
- A. Sphere
- B. Cylinder
- C. Prism
- D. Cone

3)



- A. Prism
- B. Cylinder
- C. Cone
- D. Sphere

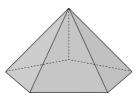
4)



5)



6)



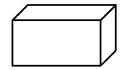
- A. Cube
- B. Triangular pyramid
- C. Rectangular pyramid
- D. Sphere

A. Cone

CHOCOLATE

- B. Rectangular Prism
- C. Triangular Prism
- D. Triangular Pyramid
- A. Cone
- B. Rectangular Prism
- C. Triangular Pyramid
- D. Pentagonal Pyramid

7)

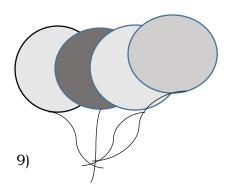


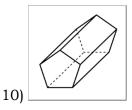
- A. Sphere
- B. Pyramid
- C. Prism
- D. Cone

8)



- A. Cube
- B. Rectangular prism
- C. Rectangular pyramid
- D. Square pyramid





- A. Cone
- B. Cylinder
- C. Prism
- D. Sphere

- A. Square prism
- B. Square Pyramid
- C. Pentagonal Pyramid
- D. Pentagonal Prism



Additional Activities

Directions: Choose the correct answer inside the box that best names what is being described then write it in your answer sheet.

edge	face	vertex	solid figure	prism	net	
------	------	--------	--------------	-------	-----	--

- 1) It is a solid figure with two parallel and congruent bases.
- 2) It is a three-dimensional figure.
- 3) It is the flat surface of the solid figure
- 4) It is a line segment formed when two faces meet.
- 5) It is a point where edges meet.



Answer Key

ď 't A .8 3. B J. C A .2 e. D I'B Assessment

10' D

9. D

2. C

Edge	.4.
Еасе	.ε
Solid Figure	.2
msinq	1.
esitivita Isnoi	JibbA

5. Vertex

₽	b	9		3
9	8	12		7
9	8	12		I
Расе	Vertex	Edge	ərugiA	

Verte	Eqge	Face	
9	6	2	I
10	Ι2	L	7
8	12	9	3
L	12	L	b
9	8	2	2



				elgnsirT .e
9	8	2	2	
L	12	L	\forall	5. Circle
8	12	9	ε	4. Hexagon
10	12	L	7	3. Rectangle
9	6	2	Ţ	2. Square
Vert	Edge	Face		
				1. Pentagon
		t Is It	ЧM	What's In
		•		

2' D

d. C

Α .ε

2. B

What Can I Do

5. Pyramid

3. Solid Figure

What I Have Learned

4. Edge

2. Face

1. Vertex

5. Non-polyhedron
4. Non-polyhedron
3. Polyhedron
2. Non-polyhedron
1. Polyhedron
Activity 2: Describe Me

cone, cylinder, triangular prism 2. Sphere, rectangular prism,

bilos 2

1. There are

What's New

4. Cube 5. Cone	a.01	5. C
 Rectangular prism Cylinder Sphere 	A .8 G .e	3. A 4. B
Activity 1: Who Am I	G. D.	1. B 2. D
What's More	00	What I Can I

References

Lumbre, U., Burgos, P. & Sy, Jr., S. (2016). 21st Century Mathletes 5 Textbook, Vibal Group Inc.

For inquiries or feedback, please write or call:

Department of Education - Bureau of Learning Resources (DepEd-BLR)

Ground Floor, Bonifacio Bldg., DepEd Complex Meralco Avenue, Pasig City, Philippines 1600

Telefax: (632) 8634-1072; 8634-1054; 8631-4985

Email Address: blr.lrqad@deped.gov.ph * blr.lrpd@deped.gov.ph