

School:	DepEdClub.com	Grade Level:	VI
Teacher:	File created by Ma'am ANNALICE R. QUINAY	Learning Area:	MATHEMATICS
Teaching Dates and			
Time:	MAY 15 - 19, 2023 (WEEK 3)	Quarter:	4 <sup>TH</sup> QUARTER

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY			
I. OBJECTIVES	The learner							
A. Content Standard	demonstrates understanding of volume of solid figures and meter reading.							
B. Performance Standard	is able to apply knowledge of volume	of solid figures and meter reading in math	ematical problems and real-life situation	ons.				
C. Learning Competencies /	solves routine and non-routine	solves routine and non-routine	creates problems involving surface	creates problems involving volume	Get at least 80%			
Objectives	problems involving volumes of	problems involving volumes of	area of solid/space figures, with	of solid/space figures, with	mastery from the			
	cylinder, cone and sphere	pyramid, cubes and prisms.	reasonable answers.	reasonable answers.	lessons learned.			
	M6ME-IVc-98	M6ME-IVc-98	M6ME-IVc-99	M6ME-IVc-99				
Measurement	Measurement	Measurement	Measurement	Measurement	Weekly Test			
III. LEARNING RESOURCES								
A. References								
1. Teacher's Guide pages	21 <sup>ST</sup> Century Mathletes	21 <sup>ST</sup> Century Mathletes	21 <sup>ST</sup> Century Mathletes	21 <sup>ST</sup> Century Mathletes,				
2. Learner's Materials pages	21st Century Mathletes 6	21st Century Mathletes 6,	21st Century Mathletes 6	21st Century Mathletes 6				
3. Textbook pages	21 <sup>st</sup> Century Mathletes 6	21 <sup>st</sup> Century Mathletes 6	21st Century Mathletes 6	21 <sup>st</sup> Century Mathletes 6				
4. Additional Materials from Learning Resource (LR) Portal	Math 6 DLP Mod. 59	Math 6 DLP Mod. 59	Math 6 DLP Mod. 59	Math 6 DLP Mod. 59				
B. Other Learning Resources	Mathletes 6 textbook, power point presentation	Mathletes 6 textbook, power point presentation	Mathletes 6 textbook, power point presentation	Mathletes 6 textbook, power point presentation				
IV. PROCEDURES								
A.Reviewing previous lesson or presenting the new lesson	Mental Computation Drill: Multiplying Fractions and Whole Numbers: ¼ x 8 x 10 ¾ x ½ x 5 75 x 8 50 x 7 1/5 x 6 Review: Match the formula to the name and picture of the solid figure.	Drill: Have a drill on the multiplication of fractions and whole numbers using the activity sheet. Example: $\frac{1}{3} \times 6 \times 8  40 \times 6$ $\frac{1}{3} \times 7 \times 9  51 \times 7$ $\frac{1}{3} \times 21 \times 4$ Review: A. Solve the ff. problems: 1.The milk can is in the shape of a cylinder. It has a radius of 3 cm. and a height of 6 cm. Find its volume.	Activity (Group Work) Mechanics: 1)Divide the class into 3 groups. 2)Group 1 will be given name of solid figure. 3)Group 2 will be given the formula on how to get the surface area of the solid figure. 4)Pupils holding the activity cards will stand, raise the activity cards they are holding and go around to look for their partners while singing the song, "Math Song." Mathematics (2x), how it thrills (2x) It is so exciting, and so interesting I love Math (2x)	Activity (Group Work) Mechanics: 1)Divide the class into 3 groups. 2)Group 1 will be given name of solid figure. 3)Group 2 will be given the formula on how to get the volume of solid figure. 4)Pupils holding the activity cards will stand, raise the activity cards they are holding and go around to look for their partners while singing the song, "Math Song." Mathematics (2x), how it thrills (2x) It is so exciting, and so interesting I love Math (2x)				

	Figure	2.The toy hat of Alex is in the shape of a cone. Its base area is 72 cm² and its height is 21 cm. What is its volume?  3. a sphere has a radius of 45cm. what is its volume?  B. What is the formula in getting the volume of cube? Rectangular prism? Pyramid?	Mathematics (2x), Challenging (2x) Numbers are ideas, numerals are symbols Math, Math, Math (2x) 5) As soon as they find their partners, they read together what is written on their activity cards. 6) The first to find their partners will be the winner.  Solid  Rectangular Solid  Cube  Cylinder  Sphere  Cone  Txrx[r+(r²+H²)½]  Review:  Analyze then solve the problems.  1. A box is 10 cm long, 12 cm wide and 20 cm high. Find its volume?  2. A pyramid has a square base of side 20 cm and a height of 15 cm. Find the volumeof the pyramid.  3. The height of a cube is 7 decimeter. Find the volume of the cube.	Mathematics (2x), Challenging (2x) Numbers are ideas, numerals are symbols Math, Math, Math (2x) 5)As soon as they find their partners, they read together what is written on their activity cards. 6)The first to find their partners will be the winner.  Solid Volume  Rectangular Solid  Cylinder π × r² × H  Sphere ⁴/₃ × π × r³  Cone ¹/₃ × π × r² × H  Review: Create problems involving surface area based on the given situation below. 1. the length of a box is 3 dm, the width is 6 dm, and the height is 5.2 dm 2. The side of a cube measures 12 dm. 3. The radius of a spherical tank is 2.5 m.
B.Establishing a purpose for the lesson	Give each group a set of steps in solving problems. Let them arrange the steps in correct order.  (This can be done in the form of a	Group the pupils into four. Let them write the 4-step plan in solving problems. Original File Submitted and	Let the pupils read the problem below: A cylinder shaped water pitcher has a radius of 6 inches and a height of	4. a cylindrical tank of radius 8 dm and a height of 15 dm  Let the pupils read the problem below:  1. A milk can has a height of 12 cm and a radius of 3.5 cm. What
	game.)  Ex.: What operation is needed to solve the problem?  What are the given facts?  What is the correct number sentence?  Write the solution with correct label.	Formatted by DepEd Club Member - visit depedclub.com for more	of the pitcher.  Ask: Can you create a problem on surface area similar to the one given?  Call 1 pupil to give example problem.	is its volume?  Ask: Can you create a problem on volume similar to the one given?  Call 1 pupil to give example problem.  Say: This time you will create problems involving the volume of a solid figures.

	What is being asked?		Say: This time you will create		
			problems involving the volume of a		
			solid figures.		
C.Presenting Examples/Instances of	Activity 1 – News Report (Class →	Present this problem to the class:	Group activity:	Group activity:	
new lesson	Group Activity)	Emilio and Jose pitched a tent that	1.Group the pupils into four.	1.Group the pupils into four.	
	1)Let one pupil read the news	has a shape of a pyramid. The base of	2.The teacher will distribute	2.The teacher will distribute	
	report. (This can be written on	the tent is a rectangle that is 2.5	problems on surface area of solid	problems on volume of solid figures	
	manila paper.)	meters wide and 2.8 meters long. The	figures	3.Let them create their own	
	Quezon City – an electric post, 150	tent is 2 meters high. What is the	3.Let them create their own	problem similar to the one given to	
	cm long with radius 15 cm, was hit	volume of the tent? Round your	problem similar to the one given to	them.	
	by a truck yesterday at 4:30 a.m.	answer to the nearest hundreds.	them.	4.Let them choose a reporter to	
	This caused a two-hour brownout in	A.Understand.	4.Let them choose a reporter to	explain the work of the group.	
	the area. The driver, Mr. Luis	What is asked?	explain the work of the group.	Group 1:	
	Mercado, and his friend, Mr. Mark	What are the given facts?	Group 1:	a.A juice box is <b>4 in</b> . tall, <b>1 in</b> .	
	Fernando, were rushed to the	B.Plan.	1.Jason is wrapping a present. The	wide, and <b>2 in</b> . long. How much	
	nearby hospital. Luckily, they just	Which formula(s) shall we use to	box he is using is a rectangular	juice fits inside the juice box?	
	had mild contusions and minor	solve the problem?	prism with a length of 15 inches, a	Group 2;	
	bruises. The two were being	C.Solve.	width 8 inches and a height of 6	Cinema theaters created a new	
	questioned as to the cause of the	Show your computation.	inches. Find how many square	popcorn box in the shape of a	
	accident – Ruby Hilario.	D.Check.	inches of paper he needs to wrap	rectangular prism. The new	
	2)Discussion:	Go back to your computation. Check	the entire box.	popcorn box has a length of 6	
	a)What was the news all about?	if the given dimensions are properly	Group 2	inches, a width of <b>3</b> . <b>5</b> inches, and	
	b)Why do you think the truck hit the	substituted to the formula.	2. A certain music box has the	a height of <b>3</b> . <b>5</b> inches. How much	
	post?	Check the flow of your computation.	shape of a cube. Each side of the	popcorn does the box hold?	
	c)How can you avoid accidents (of	(See answer on page 294, Mathletes	music box is 20 cm long. What is	Group 3:	
	any form)?	txbk)	the surface area of the box?	1. Dante built a wooden, cubic toy	
	d)What kind of solid figure is given in		Group 3	box for his son. Each side of the box	
	the news?		3. A cosmetics company that makes	measures 2 feet.	
	Can you read that part.		small cylindrical bars of soap wraps	How many cubic feet of toys will	
	I am going to use the electric post to		the bars in plastic prior to shipping.	the box hold?	
	solve a problem. Let's see if you can		Find the surface area of a bar of	Group 4:	
	find the answer.		soap if the diameter is 4 cm and	Find the volume of a right circular	
			the height is 2.5 cm. (Use $\pi$ =3.14)	cone-shaped building with a height	
			Group 4	of 10 cm and a radius of 8 cm.	
			Find the surface area of a right		
			circular cone-shaped building with		
			a height of 10 cm and a radius of 8		
			cm.		
D.Discussing new concepts and	Group the pupils into 5.	Group Activity:	After the activities are done, let the	After the activities are done, let the	
practicing new skills #1	Let them answer the activity below:	Present a story problem:	groups post their created problems	groups post their created problems	
	Find the volume of the electric post,	Victor and Carlos are brothers. They	from the given situations and let	from the given situations and let	
	150 cm long with radius15 cm,that	share their toys with each other. One	them follow the task below.	them follow the task below.	
	was hit by a truck.	day, they were playing with			

e)Analysis of the	e problem:	dominoes. They were	making	Read the problem and ask the class	Read the problem and ask the class	
What are the giv	ven facts?	different shapes and fig	gures out of	to solve the problem.	to solve the problem.	
Let them draw of	or illustrate the	these dominoes. Victo	r made a	Illustrate and solve the problem	Illustrate and solve the problem	
electric post usi	ing the given facts.	rectangular solid using	7 dominoes.	with its solution.	with its solution.	
What are we loo	oking for in the	If each domino has a le	ngth of 3.5 cm,	Ask: How did you create	Ask: How did you create	
problem?		width of 2 cm, and a he	eight of 1 cm,	problems?	problems?	
Identify the figu	ire	find the volume of the	rectangular	Expected answer:	Expected answer:	
What is the ope	eration to be used?	figure that Victor made	·.	We familiarized ourselves with the	We familiarized ourselves with the	
		Analysis and solution o	f the problem	mathematical concepts and their	mathematical concepts and their	
Write the formu	ula to find the volume	through a table:		application to real-life situations.	application to real-life situations.	
of the given soli	id figure	Possible Answer:		We thought of the type of	We thought of the type of	
What is the nun	nber sentence?	a) What is being	Volume of	problems we want to create.	problems we want to create.	
		asked?	rectangular	We read and studied some	We read and studied some	
Write the soluti	on with correct label.	Identify the solid	solid	problems that we have solved and	problems that we have solved and	
_		figure		their solutions.	their solutions.	
		b) What are the	1 domino has			
Answer:	Volume of Cylinder	given facts?	I = 3.5 cm, w			
45	\/ = Dh		= 2 cm and			
15 cm	V = <u>Bh</u> (multiplication) V = $\pi$ r <sup>2</sup> h		height = 1 cm			
	V = 3.14 x 15 cm x 15 cm x 150 c		Victor used 7			
#50 am	V = 3.14 x 225 cm <sup>2</sup> x 150 cm		dominoes			
150 cm	V = 3.14 x 33 750 cm <sup>3</sup>	c) What is the	The height of			
	V = 105 975 cm <sup>3</sup>	hidden fact?	the 7			
			dominoes			
[		d) What operation	Multiplicatio			
		should be used to	n			
		find the hidden				
		fact?				
		e) What formula is	V = l x w x h			
		needed to find the				
		volume of a				
		rectangular prism?				
		f) What is the	V = 7 x (3.5			
		mathematical	cm x 2 cm x 1			
		sentence?	cm)			
		Illustrate the figure				
		(see diagram				
		above)				
		g) Solve the	V = 7 x (3.5			
		equation.	cm x 2 cm x 1			
		Label the answer	cm)			
		correctly .	= 7 x (7			
			cm³)			
			· · · · · · · · · · · · · · · · · · ·			<del></del>

		$= 49 \text{ cm}^3$		
		1 43 6111	7	
E.Discussing new concepts and practicing new skills #2	Present another problem to the class. A spherical tank for natural gas has a radius of 7 meters. About how many cubic meters of natural gas can it hold? Use π = 22/7. Round your answer to the nearest hundredth. Analysis of the problem: (Let the group of pupils answer the ff. questions, then choose 1 leader to explain their work) A.Understand. What is asked? What are the given facts? B.Plan. Which formula(s) shall we use to solve the problem? C.Solve. Show your computation. D.Check.	Group Activity: Use the 4-step plan in solving the problem.  A water container measures 5 dm on each edge. How much water can it hold?  Understand  Know what is asked.  Know the given facts.  Plan  Determine the operation or formula to use  Solve  Show how the solution is done.  Check and Look Back  Verify if the answer is correct.	Group activity: Make a problem involving surface area based on the given situation. Let the other group find the answer to the problems.  1. the length is 2 m, the width is 3 m, and the height is 1.2 m of a rectangular box.  2. The side of a cube measures 25 cm.  3. The radius of a spherical tank is 1.5 m.  4.A pyramid has a square base of side 15 cm and a height of 14 cm.  5. a cylindrical tank of radius 5 dm and a height of 10 dm	Group activity: Make a problem involving the volume based on the given situation. Let the other group find the answer to the problems.  1. the length is 2 m, the width is 3 m, and the height is 1.2 m of a rectangular box.  2. The side of a cube measures 25 cm.  3. The radius of a spherical tank is 1.5 m.  4.A pyramid has a square base of side 15 cm and a height of 14 cm.  5. a cylindrical tank of radius 5 dm and a height of 10 dm.
E Davidoning mastery	Go back to your computation. Check if the given dimensions are properly substituted to the formula.  Check the flow of your computation.	A puramid has a boight of 16 dm. Its	Pair charo:	Pair chara:
F.Developing mastery (Leads to Formative Assessment)	Group Activity: Solve the following problems. (The pupils may follow the analysis format as given or they can make their own as long as they can explain their answers.) Answer the ff. questions. 1. What is asked? 2. What are given? 3. What operation will be used? 4. What is the number sentence? 5. What is the solution? 6. What is the answer? 1. Peter has a cylinder shaped can. If the can measures 30 cm. high and has a radius of 10 cm. how much water can it hold?	A pyramid has a height of 16 dm. Its base is 84 sq. dm. What is its volume?  1. What is asked? The volume of the pyramid.  2. What are given? Height = 16 dm, base = 84 sq. dm.  3. What operation will be used? Multiplication and Division.  4. What is the number sentence? V = 1/3 Bh  5. What is the solution?  V = 1/3 Bh  V = 1/31/3x 84 dm² x 16 dm  V = 1/3x 1,344 dm³  V = 1,344/3  V = 448 dm³	Pair-share: Create problem surface area using the given data below.  1)A piece of soap is 9 cm by 4 cm by 3cm. Problem: Answer: 2)An aquarium is 0.8 m long, 0.4 m wide, and 0.45 dm deep. 3)An iron bar 2 m long and 0.05 m in diameter. Problem: Answer: 4)An ice cream cone 2 cm in radius and 6 cm in height. Problem: Answer:	Pair-share: Create problem surface area using the given data below.  1)A piece of soap is 9 cm by 4 cm by 3cm. Problem: Answer: 2)An aquarium is 0.8 m long, 0.4 m wide, and 0.45 dm deep.  3)An iron bar 2 m long and 0.05 m in diameter. Problem: Answer: 4)An ice cream cone 2 cm in radius and 6 cm in height. Problem: Answer:

	2.An ice cream cone has a diameter of 32 mm. and a height of 45 mm. What is its volume? 3.Find the volume of a volleyball that has a radius of 4 ½ decimeters. Use 22/7 for π.	6. What is the answer? The volume of the pyramid is 448 dm <sup>3</sup> .			
G.Finding practical applications of concepts and skills in daily living	Solving word problems involving measurement of volume following the steps in solving problems Analyze the problem and study the answers to the questions.  1.)Find the volume of a ball with a diameter of 112 cm.  1. What is asked?  2. What are given?  3. What operation is to be used?  4. What is the number sentence?  5. What is the solution?  6. What is the answer?  2.)A cylinder has a radius of 8 cm. and a height of 20 cm. What is its volume?  1. The problem asked for is  2.The given are  3.The number sentence is  4.The answer is  3.)A cone has a radius of 10 m and a height of 18 meters. Find its volume.  1. What is asked?  2. What are given?  3. What operation is to be used?  4. What is the number sentence?  5. What is the solution?	A. Read and analyze each problem. Then answer the questions that follow.  1.The base of a pyramid is 15 cm by 21 cm. Its height is 28 cm. Compute the volume.  2. How many cubic meters of palay can be placed in a box that is 45 m long, 8 m wide and 7 m high?  3. A chalk box measures 18 cm on each edge. What is the volume of the box??  1. What is asked?  2. What are given?  3. What operation will be used?  4. What is the number sentence?  5. What is the solution?  6. What is the answer?	Group Activity: Let the pupils create problems involving surface area for the following situations then solve for the answer: a)a box 44 cm by 9 cm by 6 cm Problem: Answer: b)a cone with height 9 dm and radius 4 dm Problem: Answer: c)a cabinet 1.2 m by 0.9 m by 0.5 m Problem: Answer: d)a ball with radius 10 cm Problem: Answer: e)a cylindrical tank 25 dm long and radius 8 dm Problem: Answer: Answer:	Group Activity: Let the pupils create problems involving volume for the following situations, then solve for the answer. a)a box 44 cm by 9 cm by 6 cm Problem: Answer: b)a cone with height 9 dm and radius 4 dm Problem: Answer: c)a cabinet 1.2 m by 0.9 m by 0.5 m Problem: Answer: d)a ball with radius 10 cm Problem: Answer: e)a cylindrical tank 25 dm long and radius 8 dm Problem: Answer: Answer:	
H.Making generalizations and abstractions about the lesson	6. What is the answer?  How do you solve word problems invo The following are the steps in solving woof volume following the steps in solving A. Know and understand the problem, 1. What is asked? 2. What are given? 3. What is the word clue and operation B. Plan for the solution. 1. What is the number sentence?	word problems involving measurement g problems:	Ask the following questions: What did you do to be able to create problems involving the surface area of solid figures? What are the steps in creating problems? Steps in creating problems.	Ask the following questions: What did you do to be able to create problems involving the volume of solid figures? What are the steps in creating problems? Steps in creating problems.	

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	C. Carry out the plan.		Familiarize yourself in the concepts.	Familiarize yourself in the concepts.	
	1. Solve the number sentence.		Think of an explanation to everyday	Think of an explanation to everyday	
	2. What is the answer?		life real situations.	life real situations.	
	D. Look back and check.		Think of the type of problem you	Think of the type of problem you	
	1. Find out if you answered the problem correctly		want to create and the formula to	want to create and the formula to	
			be used. Relate the problem to real	be used. Relate the problem to real	
			life situations.	life situations.	
			Study the solution in solving the	Study the solution in solving the	
			problems.	problems.	
			Make your own styles/strategies to	Make your own styles/strategies to	
			justify the solutions.	justify the solutions	
I.Evaluating Learning	Solve the ff. problems:	Solve the ff. problems:	Let the pupils create problems	Let the pupils create problems	
	1)A cone hat has a radius of 1.2 dm	<u>1</u>	involving surface area for the	involving surface area for the	
	and a height of 3.4 dm. What is its	1.A rectangular water tank is $\frac{1}{2}$	following situations: Solve for the	following situations. Solve for the	
	volume?	11	answer.	answer.	
	2)Harold is molding a cylindrical	metre wide, 1 metre long and $1\frac{1}{2}$	1.A small gift box measures 8 cm	1.A small gift box measures 8 cm	
	candle with a diameter of 12 cm and	metres high. If it is half-filled, how	long, 7 cm wide and 2 cm high.	long, 7 cm wide and 2 cm high.	
	a height of 18 cm. About how much	much water does it contain?	2.A rectangular water tank is 5	2.A rectangular water tank is 5	
	wax does Harold need to mold the	2.A box of milk is 9 cm long, 8 cm	meter high, 2 m wide and 3 m long.	meter high, 2 m wide and 3 m long.	
	candle?	wide, and 18 cm high. Find its	3. rectangular prism with length of	3. rectangular prism with length of	
	3.) A volleyball has a radius of 5.2	volume.	5 m, width 7 m, and the height is	5 m, width 7 m, and the height is	
	decimeters. What is its volume? Use	3.The base of a pyramidal tent is a	14.5 m.	14.5 m.	
	22/7 for π.	square. If the tent is 2 metres long	4. a cube measures 30 cm.	4. a cube measures 30 cm.	
	4.) A cone-shaped paper cup has a	1 1 1	5. a spherical tank with a radius of	5. a spherical tank with a radius of	
	radius of 4.2 cm and a height of 9	and $1^{\overline{2}}$ metres high, how many	1.5 m	1.5 m	
	cm. How many cm <sup>3</sup> of water can it	cubic metres of space can it hold			
	contain?	inside?			
	5.) A water tank has an interior	4. Alice has a paperweight in the			
	height of 10 metres and a diameter	shape of a pyramid. Its height is 6			
	of 6 m. What is the volume in cubic	cm, length is 5.2 cm and width is 4.9			
	metres. How many litres of water	cm. What is its volume?			
	can it hold half-full?	5. Each side of the chalk box is 15 cm			
		long. What is the volume?			
J.Additional activities for	Analyze then solve the problems.	Analyze then solve the problems.	Make a three (3) problem involving	Make a three (3) problem involving	
application and remediation	1)A conical tent has a base of	1.A box of corn flakes is 7 cm long, 9	surface area. Write the answer to	volume. Write the answer to each	
	45.7dm in diameter and a height of	cm wide and 14 cm high. Find its	each problem on your answer	problem on your answer sheet. You	
	24.8dm. What is the volume of the	volume?	sheet. You may use an aquarium,	may use an aquarium, shoebox,	
	air that it holds?	2.Each book of a set of encyclopedia	shoebox, swimming pool, and other	swimming pool, and other	
	2.A milk can has a height of 12 cm	measures 2.85 dm by 2.15 dm by 0.4	rectangular prisms for the problem.	rectangular prisms for the problem.	
	and a radius of 3.5 cm. What is its	dm. The encyclopedia has 19 books.			
	volume? Find the volume of a pipe	What is the total volume of all 19			
	with a height of 1.5 m and a	books?			
	diameter of 0.18 m.				
	1	I.	1	I L	

V. Remarks			
VI. REFLECTIONS			
A. No. of learners who earned			
80% on the formative			
assessment			
B. No. of learners who require			
additional activities for			
remediation who scored below			
80%			
C. Did the remedial lessons work?			
No. of learners who have			
caught up with the lesson			
D. No. of learners who continue to			
require remediation			
E. Which of my teaching			
strategies worked well? Why			
did this work?			
and this work.			
F. What difficulties did I			
encountered which my			
principal or supervisor can help			
me solve?			
G. What innovation or localized			
materials did I use/discover			
which I wish to share with			
other teachers?			