

Unit Title: Surface Area and Volume
Grade Level: 5th Grade
Subject Area: Math
Duration/Length/Number of class periods: Seven 80-minute math sessions
Description: Students will do different activities to understand volume and surface area.
Established Goals (National, State, Local): 5.3.2.2 Use various tools and strategies to measure the volume and surface area of objects that are shaped like rectangular prisms. 5.3.2.4 Develop and use the formulas $V=lwh$ and $V=Bh$ to determine the volume of rectangular prisms. Justify why base area B and height h are multiplied to find the volume of a rectangular into prisms by breaking the prism into layers of unit cubes.

What Enduring Understandings are desired? a. I can measure the volume of rectangular prisms in a variety of ways b. I can measure the surface area of rectangular prisms This means I can use a variety of strategies that may include decomposing the prism into its net.
What Essential Questions will be considered? What is Volume? What is Area? How are they similar and different?
Students will know/be able to: find volume and surface area of 3d shapes including cubes and rectangular prisms. They will also be able to show the difference between volume and surface area.

Description	Formative	Summative	Introductory Activity	Learning Activity	Student Technology Used	Teacher Technology Used	ISTE Standards
Padlet - What do you already know about Surface Area and Volume			X		Chrome book and Website	Chromebook and Website	7A, 1C
Tinker cad- Find the volume of 3d Shapes (Create your own model using 2-3 different shapes)	X			X	Chrome book and Website	Chromebook and Website	4A

Illuminations Website: https://www.nctm.org/Classroom-Resources/Illuminations/Interactives/Cubes/				X	Chrome book and Website	Chrome book and Website	5C
Everyday Math Lessons (1.4C, 1.7, 1.8, 1.9, 1.10, 1.11 1.12)				X	Math Journal	Math Journal Smart Board	
Edpuzzle Volume Video (Find the Volume Gilligan)	X			X	Chrome book and Website	Chrome book and Website	
Edpuzzle Surface Area Video (Geometry: Surface Area- Gilligan)	X			X	Chrome book and Website	Chrome book and Website	
Desmos volume and surface area card sort (Link)	X			X	Chrome book and Website	Chrome book and Website	
http://www.sheppardsoftware.com/mathgames/geometry/shapeshoot/VolumeShapesShoot.htm				X	Chrome book and Website	Chrome book and Website	
Seesaw (Volume and Surface Area practice 1.2.3)	X			X	Chrome book and Website	Chrome book and Website	1C
Flip Grid- Reflection (Rubric)		X			Chrome book and Website	Chrome book and Website	1C, 7
Google Form Unit Assessment TeacherCopy		X			Chrome book and Website	Chrome book and Website	1C

Daily Plans:
Day 1: Padlet Intro Activity Everyday Math 1.4 C EdPuzzle Surface Area
Day 2: Everyday Math 1.7 Geometry Shape Shoot Game

Day 3:
Everyday Math 1.8
Illuminations Website

Day 4:
Everyday Math 1.9
EdPuzzle Volume

Day 5:
Everyday Math 1.10
Desmos (Volume and Surface Area)
Seesaw (Volume and Surface Area)

Day 6:
Everyday Math 1.11
TinkerCad
Everyday Math 1.12 (Prism Pile Up Game)

Day 7:
Google Form Unit Assessment
Flip Grid Reflection

Materials, tools and resources:

Chrome books, Smart Boards, Tinkercad, Illuminations Interactive Cubes, Everyday Math Curriculum, Edpuzzle, Google Forms, Desmos, Padlet, Seesaw

Unit Plan Author (name, school and optional email address or hyperlink to teacher's web page):

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