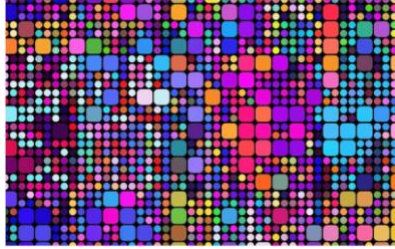




## Geometry Concepts and Connections Unit 7: Modeling with Equations and Measurement



### Overview:

In this unit, students will explore equations and measurement in geometric contexts as models for real-life phenomena developing informal arguments and solving problems involving volume.

### Learning Targets

In Unit 7, students will:

- Verify experimentally the formulas for the volume of a cylinder, pyramid, sphere, prism, and cone
- Emphasize volume as the product of the area of the base and the height for both prisms and cylinders.
- Use and explain Cavalieri's Principle to show that the volume of an oblique solid can be found using right solids.
- Find the volume of solids and composite solids to explain real-life phenomena
- Choose the appropriate geometric solid to approximate volumes of irregular objects
- Choose the appropriate geometric figure or solid to approximate density of irregular objects in a geometric situation.

Key Vocabulary: (linked to GA DOE Interactive Glossary)

Base	Density	Oblique Solid	Sphere
Cavalieri's Principle	Geometric Properties	Prism	Volume
Cone	Height	Pyramid	
Cylinder	Irregular Object	Right Solid	

### Supporting Resources:

<http://ctlslearn.cobbk12.org/>

[Volume density \(video\) | Solid geometry | Khan Academy](#)

[Cone vs Sphere vs Cylinder \(mathsisfun.com\)](#)

<https://gavirtual.instructure.com/courses/34328>

[How Do You Find the Volume of a Composite Figure? | Virtual Nerd](#)