

Measurement

Connecting Math Ideas: Measurement, like geometry, can be organized by # of dimensions. Measurement activities can be organized as 1, 2, 3 and 4 dimensions.

Teaching Tip: Introducing to 1 and 2 dimensions together will reduce students' confusion between area and perimeter. For increased instructional productivity, use area grids as a visual representation for multiplication facts. Similarly, teach surface area and volume together so students do not confuse the two concepts. Integrate time with geography lessons: this approach helps students understand that hours are based on the rotation of the earth and seasons on the revolution of the earth around the sun and the tilt of the earth's.

<p style="text-align: center;">1 and 2 dimensions</p> <p style="text-align: center;">Perimeter (circumference) and area</p> <p>This is what your students should be able to articulate</p> <ul style="list-style-type: none"> • perimeter is the distance around a polygon and circumference is the distance around a circle (length-1-D) • area is typically measured in square units (length and width—2 dimensions) • the standard international and scientific measure is the Metric system • the US uses the customary or Imperial system analogue clocks that provide approximations for angle measures 	<p style="text-align: center;">2 and 3 dimensions</p> <p style="text-align: center;">Surface area and volume</p> <p>This is what your students should be able to articulate</p> <ul style="list-style-type: none"> • 3 dimensional solids have surface area and volume (length, width and height (3 dimensions)) • volume is typically measured in cubes 	<p style="text-align: center;">4th dimension</p> <p style="text-align: center;">Time</p> <p>This is what your students should be able to articulate</p> <ul style="list-style-type: none"> • change in time is caused by the rotation of the earth • change in daylight across the seasons is caused by the tilt of the earth toward or away from the sun
Measurement: Perimeter of Polygons	Surface Area & Volume Decomposing Rectangular Solids	Timezone - Greenwich - analog
Area & Perimeter	Surface Area and Volume of Cubes	Timezone - Greenwich - digital
Area Formula	Volume of Cylinders and Cones	Time Marches On!
The Lickity-Split Ice Cream Stand – Instructional	Surface Area of Spheres	
The Thorndale Street Art Fair: Practice		
The Local Zoo Food Court - Difficult		
Calculate the empty floor space.		

<u>Area & Perimeter</u>		
<u>Area of Irregular Polygons: Pick's Theorem</u>		
<u>Direct and Indirect Measurement of Area</u>		
<u>Tangrams</u>		
<u>Circle Design</u>		
<u>Compare the top speeds of the selected animals, inventions and natural phenomena</u>		
<u>Comparing Decimal Problems to Non-Decimal Problems</u>		
<u>Measuring Angles</u>		
<u>Discovering Pi</u>		
<u>Logarithms & the Richterscale</u>		