



# Mathematical Practices Grades K - 8

---

- 1. Make sense of problems and persevere in solving them.**
- 2. Reason abstractly and quantitatively.**
- 3. Construct viable arguments and critique the reasoning of others.**
- 4. Model with mathematics.**
- 5. Use appropriate tools strategically.**
- 6. Attend to precision.**
- 7. Look for and make use of structure.**
- 8. Look for and express regularity in repeated reasoning.**



## 7th Grade Mathematics Curriculum Map

Quarter	Unit of Study	Illinois Learning Standards	Mathematical Practice Standard	Learning Targets
1	Integers	7.NS.1a-d 7.NS.2a-d 7.NS.3	MP1 MP1a MP2 MP3 MP4 MP6 MP7 MP8	<ul style="list-style-type: none"> <li>• Find the absolute value of an integer</li> <li>• Find the sum of two or more integers</li> <li>• Find the difference of integers</li> <li>• Find the product of integers</li> <li>• Find the quotient of integers</li> </ul>
	Rational Numbers	7.NS.1a-d 7.NS.2a-d 7.NS.3		
2	Expressions and Equations	7.EE.1 7.EE.2 7.EE.4a	MP1 MP2 MP3 MP4 MP5 MP6 MP7 MP8	<ul style="list-style-type: none"> <li>• Simplify algebraic expressions</li> <li>• Add and subtract linear expressions</li> <li>• Factor linear expressions</li> <li>• Solve equations using addition or subtraction</li> <li>• Solve equations using multiplication or division</li> <li>• Solve two-step equations</li> </ul>
	Inequalities	7.EE.4b		
3	Ratios and Proportions	7.RP.1 7.RP.2a-d		<ul style="list-style-type: none"> <li>• Write ratios and rates</li> <li>• Compare ratios using proportions and the Cross</li> </ul>



	Percents	7.RP.3  7.RP.3 7.EE3	MP2 MP3 MP4 MP5 MP6 MP8	<p>Products Property</p> <ul style="list-style-type: none"> <li>• Graphing proportional relationships</li> <li>• Write and solve proportions using mental math</li> <li>• Solve proportions using multiplication or the Cross Products Property</li> <li>• Determine the slope of a line when given a graph</li> <li>• Determine whether relationships show direct variation</li> </ul> <ul style="list-style-type: none"> <li>• Convert between percents and decimals</li> <li>• Compare and order fractions, decimals, and percents</li> <li>• Find percents using the percent proportion</li> <li>• Find percents using the percent equation</li> <li>• Use a percent of change formula to solve problems</li> <li>• Use the percent equation to find discounts and markups</li> <li>• Use the simple interest formula</li> </ul>
4	<p>Constructions and Scale Drawings</p> <p>Circles and Area</p>	<p>7.G.1 7.G.2 7.G.5</p> <p>7.G.4 7.G.6</p>	MP1 MP3 MP4 MP5 MP6 MP8	<ul style="list-style-type: none"> <li>• Identify adjacent or vertical angles</li> <li>• Classify angles as complementary or supplementary</li> <li>• Classify and construct triangles</li> <li>• Find the missing angle measure of a triangle and classify the triangle</li> <li>• Classify quadrilaterals</li> <li>• Use scale drawings to find missing measurements</li> </ul> <ul style="list-style-type: none"> <li>• Estimate and calculate the circumference of circles</li> <li>• Find the perimeters of composite figures</li> <li>• Find the areas of circles and semicircles</li> <li>• Find the areas of composite figures</li> </ul>
<b>Honors</b>	Surface Area and Volume	7.G.4 7.G.6	MP1 MP2	<ul style="list-style-type: none"> <li>• Find the surface area of a prism using a formula</li> <li>• Find the surface area of a pyramid using a formula</li> <li>• Find the surface area of a cylinder using a formula</li> <li>• Find the volumes of prisms</li> </ul>



	<p>Probability and Statistics</p>	<p>7.SP.1 7.SP.2 7.SP.3 7.SP.4 7.SP.5 7.SP.6 7.SP.7a-b 7.SP.8a-c</p>	<p>MP3 MP4 MP5 MP6 MP8</p>	<ul style="list-style-type: none"> <li>• Find the volumes of pyramids</li> <li>• Describe the cross-sections of three-dimensional figures</li>   <li>• Identify favorable outcomes of an event</li> <li>• Find the probability of an event</li> <li>• Find the experimental probability of an event</li> <li>• Find the theoretical probability of an event</li> <li>• Use sample spaces and the total number of possible outcomes to find the probability of compound events</li> <li>• Identify and find probabilities of independent events and compound events</li> <li>• Identify biased and unbiased samples and determine whether a sample can be used to make predictions about a population</li> <li>• Compare populations</li> </ul>
--	---------------------------------------	--	--	--