

Using *Investigations* to Teach the Common Core State Standards at Grade 5

Investigations is a focused and coherent K-5 curriculum, intentionally designed and sequenced to promote a deep understanding of mathematics. The curriculum units at each grade level represent a cohesive whole, not separate parts. Each successive unit builds on the previous unit, both within and across strands, and across grades. The geometry and measurement, data, and patterns and functions units focus on foundational mathematical ideas and practices and also support work in the number and operations units. By teaching the *Investigations* curriculum as written, students go deeply into mathematical practices and content.

The CCSS in Grade 5. Most of the CCSS content standards are met by teaching the fifth grade units, in order, as is *Investigations and the Common Core State Standards at Grade 5* provides new content so that all standards are covered.¹ In most cases, these Standards are also addressed by existing material in the *Investigations* curriculum. New activities and Sessions build on what is in the curriculum to introduce new ideas or extend existing ones. New Math/Teaching Notes, Ten-Minute Math activities, and pages for additional practice address language, vocabulary, notation, or levels of fluency specific to the CCSS.

Additional Content That Extends the Mathematics in *Investigations* Grade 5

Math Idea(s) ²	CCSS Standard	Additional Content	Unit
“Use parentheses, brackets, or braces in numerical expressions.”	5.OA.1	1 Session Daily Practice/Homework	1 7
“Use whole number exponents to denote powers of ten.”	5.NBT.2	Ten-Minute Math: <i>Practicing Place Value</i> Teaching Notes	3 3
“Explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10.” Read and write decimals using expanded form.	5.NBT.2 5.NBT.3a	Included in 1 Session on multiplying decimals. Ten-Minute Math: <i>Practicing Place Value</i> Daily Practice/Homework	6 6, 8 6
Round decimals to any place.	5.NBT.4	1 Session Ten-Minute Math: <i>Practicing Place Value</i>	6 6
Subtract decimals.	5.NBT.7	1 Session Daily Practice/Homework	6 6
Multiply and divide decimals.	5.NBT.7	1 Investigation (7 sessions) Ten-Minute Math: <i>Estimation and Number Sense: Closest Estimate</i> Daily Practice/Homework	6 6 6

¹ All the necessary information and materials are included in *Investigations and the Common Core State Standards*. For more information, see: http://assets.pearsonschool.com/asset_mgr/current/20119/InvestigationsCCBrochure.pdf.

² These ideas, which paraphrase the CCSS Standards, may reflect only a portion of one standard, or several standards combined.

Math Idea(s) ²	CCSS Standard	Additional Content	Unit
“Multiply a fraction or whole number by a fraction.” “Find the area of a rectangle with fractional side lengths.” “Interpret multiplication as scaling.” Solve “problems involving multiplication of fractions and mixed numbers.”	5.NF.4a-b	7 Sessions	4
	5.NF.5a-b	Ten-Minute Math: <i>Estimation and Number Sense: Closest Estimate</i>	4
	5.NF.6	Daily Practice/Homework	4
“Divide unit fractions by whole numbers and whole numbers by unit fractions.”	5.NF.7a-c	3 Sessions Daily Practice/Homework	4 4
“Convert among different-sized standard measurement units within a given measurement system.”	5.MD.1	2 Sessions	6
“Make a line plot to display a data set of measurements in fractions of a unit... Use operations on fractions... to solve problems involving information presented on line plots.”	5.MD.2	2 Sessions	9
“Recognize volume as additive.” Apply formulas to find volumes of right rectangular prisms.	5.MD.5b-c	1 Session	2
		Teaching Notes	2

Pacing in Grade 5. Most of the CCSS content standards are met by teaching the fifth grade units, in order, as written. *Investigations and the Common Core State Standards at Grade 5* includes 25 new Sessions which are incorporated into the nine original units. In order to keep the total number of Sessions manageable, omit the 21 Sessions listed in the table below. While they do not focus explicitly on CCSS content, they broaden the mathematics experience for fifth graders and can be taught if time permits.

Unit	Original # of Sessions	New Sessions	Sessions to be Omitted	Total # of Sessions
1	22	1 (5.OA.1)		23
2	16	1 (5.MD.5b-c)	4 (volume of cylinders/cones, 3.1-3.4)	13
3	15		2 (subtraction algorithm, 2.4-2.5)	13
4	21	10 (5.NF.4a-b, 5.NF.5a-b, 5.NF.6, 5.NF.7a-c)		31
5	18		4 (similar figures, 3.1-3.4)	14
6	18	11 (5.NBT.2, 5.NBT.4, 5.NBT.7, 5.MD.1)		29
7	20			20
8	13			13
9	15	2 (5.MD.2)	11 (experiments, 2.1-2.6; probability, 3.1-3.4)	6
	158	25	21	162