



PROGRESSIONS DOCUMENTS

- What are they?
- Who uses them?
- When do I use them?
- Where can I find them?
- Why do I need them?

Progressions Documents

- Take special note regarding number lines and/or fraction strips
- Grade 3
 - Pages 2 - 4
- Grade 4
 - Pages 5 – 8 (skip the “Decimals” section)
- Grade 5
 - Pages 10 – 13

Domain and Conceptual Categories

	K	1	2	3	4	5	6	7	8	HS
Counting & Cardinality										
Number and Operations in Base Ten										
Number and Operations – Fractions										
Operations and Algebraic Thinking										
Geometry										
Measurement and Data										
Ratios and Proportional Relationships										
The Number System										
Expressions and Equations										
Algebra										
Functions										
Statistics and Probability										
Statistics & Probability										

Source: <http://www.illustrativemathematics.org/Implementing-illustrative-common-core-standards>

Common Core: Fractions

- Fluency expected within grades 3 through 5.
- Multiple Representations
 - Numbers
 - Words
 - Pictures
- Fractions Models
 - Area model
 - Set model
 - Linear model

Progressions Documents

- We will form groups of 3rd, 4th, and 5th grade.
- Each grade will take a turn explaining their role in the fractions progression.
- Be sure to reference what parts of today's activities illustrate the progression.



Partnership for Assessment of Readiness for College and Careers (PARCC) Task Types

- Type I: Concepts, Skills, and Procedures
 - Balance of conceptual understanding, fluency, and application.
 - May involve any or all mathematical practice standards.
 - Will be machine scored.
- Type II: Expressing Mathematical Reasoning
 - Includes:
 - Written arguments/justification
 - Critique of reasoning
 - Precision in mathematical statements
 - May be machine scored and/or hand scored.
- Type III: Modeling / Applications
 - Modeling/application in a real-world context or scenario.
 - May be machine scored and/or hand scored.

Review PARCC Examples

1. Go to <http://www.ccsstoolbox.com>
2. Click on “Resources for Implementation” on the top menu bar.
3. Click on “PARCC Prototyping Project” on the lower left menu bar.
4. Click on your grade level.
5. Browse the available tasks.

Illustrative Mathematics

- HOME
- ILLUSTRATIONS
- K-4 STANDARDS
- HIGH SCHOOL STANDARDS
- PRACTICE STANDARDS
- FRACTIONS PROGRESSION
- FREQUENTLY ASKED QUESTIONS
- COMMUNITY
- ABOUT US
- TERMS OF USE

K-8 Standards

High School Standards

Practice Standards

Builds mathematics practice guides to state, assessment-ready, task-oriented, and custom-developed to facilitate the range and types of mathematical work that all students experience in a high-quality mathematics program. Includes standards, and supporting other tools that support implementation of the standards.

Grade level navigation bar with buttons for K, 1, 2, 3, 4, 5, 6, 7, 8.

Geometry

Measurement and Data	Statistics and Probability
Number and Operations in Base Ten	The Number System
Operations and Algebraic Thinking	Expressions and Equations
Counting and Cardinality	Number and Operations—Fractions
	Ratios and Proportional Relationships
	Functions

[Show only illustrated standards](#)

[Reveal standards automatically](#)

Grade level navigation bar with buttons for K, 1, 2, 3, 4, 5, 6, 7, 8.

Measurement and Data	Statistics and Probability
Number and Operations in Base Ten	The Number System
Operations and Algebraic Thinking	Expressions and Equations
Counting and Cardinality	Number and Operations—Fractions
	Ratios and Proportional Relationships
	Functions

[Show only illustrated standards](#)

[Reveal standards automatically](#)

Number and Operations—Fractions

Grade 3 3.NF [View all](#)

- Develop understanding of fractions as numbers.**
- Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$. (see illustrations)
 - Understand a fraction as a number on the number line; represent fractions on a number line diagram. (see illustrations)
 - Represent a fraction $1/b$ on a number line from 0 to 1 as the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $1/b$ and that the endpoints of the parts are 0 and 1.
 - Represent a fraction a/b on a number line diagram by marking off a lengths $1/b$ from 0. Recognize that the resulting interval has size a/b and that its

Content Standards Review

- Read your course standards
 - What has changed?
 - What are they talking about?
- Reference standards on illustrativemathematics.org
- Review standards for one or more grade levels above and below

Planning Time

- What lessons could you incorporate multiple representations into?
 - Adding, Subtracting, Multiplying, and Dividing Numbers
- Which concepts have you found students to be the most lacking in?
 - Read the progression documents for that content area.
- CCSS Resources
 - How could I incorporate them?
- Figure out details such as:
 - When would I do this lesson?
 - What resources would I need?
 - What other teachers could I collaborate with?

NEXT STEPS

- Start with realistic goals:
 - At least one per semester
 - Perhaps one per unit
- Collaboration is key
- Standards for Mathematical Practice
 - Talking and writing about mathematics

Contact

Robert Kaplinsky

robert@robertkaplinsky.com

robertkaplinsky.com

[@robertkaplinsky](https://twitter.com/robertkaplinsky)