

**Investigations in Number, Data, and Space® 3<sup>rd</sup> Edition**, known as *Investigations 3*, maintains the standard of excellence as a focused and coherent program that supports students to make sense of mathematical ideas and supports their teachers to make sense of both mathematics content and student thinking. It embodies the Mathematical Practices in the Common Core State Standards for Mathematics, and fully aligns to the Content Standards.

The guiding principles from *Investigations 2<sup>nd</sup> Edition* are maintained in *Investigations 3*. These guiding principles are:

- 1) Students have mathematical ideas and are given the opportunity to learn in an environment that focuses on making sense of mathematics. Students build on the ideas they already have and learn about new mathematics they have never encountered.
- 2) Teachers are engaged in ongoing learning about mathematics content, pedagogy, and student learning.
- 3) Teachers collaborate with the students and use the curriculum to maintain a clear, focused, and coherent agenda for mathematics teaching.

Mathematical practices, such as sense making, reasoning, and communicating about mathematical ideas, have always been integral to students' work in the *Investigations* curriculum. In *Investigations 3*, the CCSS Mathematical Practices are highlighted explicitly in each unit. Support material for teachers provides images of what these practices look like in the elementary classroom, examples of how math practices interact with math content, and guidance for helping young students learn how to use these practices in their mathematical work.

*Investigations 3* ensures that its instructional approach works in a wide variety of classrooms. It maintains full availability for classrooms that use print materials and provides

access to digital enhancements for both teachers and students in classrooms with regular or periodic access to those technologies.

*Investigations 3* offers digital tools and technologies to enhance its research-based, field-tested, and proven instructional model. These tools provide teachers with easy access to the professional development materials that are a hallmark of the program, support classroom management tasks, and help students capture and share their work.

Core program resources for teaching and learning will be made available on Pearson's latest learning management system, **Pearson Realize™**.

Classroom implementation will begin fall, 2016.

*Investigations 3* content is based on *Investigations 2<sup>nd</sup> Edition*, but has been updated to fully address Common Core State Standards for Mathematics. Sessions from the *Investigations and the Common Core State Standards* component have been integrated in the Curriculum Units. Many of these sessions have been expanded upon, while other sessions have been deleted or merged to streamline the curriculum and to reduce the overall number of sessions. Each grade level consists of 8 Curriculum Units and 132-145 *Sessions*.

The following is not meant to be a comprehensive description of *Investigations 3* content or reflect all content changes, but does provide some examples for each grade.

**In Kindergarten, the ideas being expanded upon include the following:**

- Work with teen numbers, complements of 10, fluency within 5, and story problems

**Additional changes to the Kindergarten curriculum include:**

- Expansion of the number of units in the Number and Operations strand from three to four units

- Revision of all *Classroom Routines*, with new variations occurring over the year to complement ongoing content work. Other specific changes to *Classroom Routines* include:
  - A new *Classroom Routine* that focuses on solving story problems
  - Introduction of the *Counting on the Number Line* Routine earlier in the curriculum
- Expansion of the geometry unit from one unit into two: one focused on 2-D geometry and the second on 3-D geometry
- The Pattern unit is no longer a part of the Kindergarten sequence.

**In Grade 1, the ideas being expanded upon include the following:**

- Understanding and solving addition and subtraction problem types with unknowns in all positions
- Addition and subtraction within 20; specifically fluency within 10 and problems with three addends
- Models of place value and addition and subtraction of 2-digit numbers
- Introductory work with fractions as equal parts of a whole.

**Additional changes to the Grade 1 curriculum include:**

- Revision of all *Classroom Routines*, with new variations occurring over the year to complement ongoing content work
- The addition of new *Classroom Routines* focusing on
  - understanding and telling time to the half hour
  - number composition and place value of 2-digit numbers
- The Pattern unit is no longer a part of the Grade 1 sequence.

**In Grade 2, the ideas being expanded upon include the following:**

- Understanding and solving one- and two-step addition and subtraction problem types with unknowns in all positions
- Story problem contexts about money and measurement
- Full integration of fluency with addition/subtraction facts within 20
- Models of place value that support addition and subtraction of 3-digit numbers

**Additional changes to the Grade 2 curriculum include:**

- Revision of the unit *How Many Floors? How Many Rooms?* into a new unit supporting the foundations of multiplication
- Revision of all *Classroom Routines* with new variations occurring over the year to complement ongoing content work

**In Grade 3, the ideas being expanded upon include the following:**

- Multiplication and division of whole numbers
- More explicit connections between area and multiplication
- Integration of the number line as a model representing fractions
- Greater inclusion of multi-step problems

**Additional changes to the Grade 3 curriculum include:**

- Expansion of the number of units focused on multiplication and division from one unit to three units
- Consolidation of the three units focused on addition and subtraction into two units
- The 3-D geometry unit is no longer a part of the Grade 3 sequence.

**In Grade 4, the ideas being expanded upon include the following:**

- Fluency with addition and subtraction algorithms
- Multiplication as comparison
- Multiplication and division of 4-digit by 1-digit numbers
- Multiplying a whole number by a fraction
- Greater inclusion of multi-step problems

**Additional changes to the Grade 4 curriculum include:**

- The 3-D geometry unit is no longer a part of the Grade 4 sequence.

**In Grade 5, the ideas being expanded upon include the following:**

- Multiplication and division of rational numbers
- Fluency with multiplication algorithm
- The additive nature of volume
- Greater inclusion of multi-step problems

**Additional changes to the Grade 5 curriculum include:**

- Creation of a new unit focused on multiplication and division of rational numbers
- Restructuring of the curriculum to provide a stronger pathway into computation with rational numbers
- The Data unit and the Addition and Subtraction unit are no longer part of the Grade 5 sequence.