

A quick guide for observing classroom content and practice

In grade 3, instructional time should focus on four critical areas:

1. Developing understanding of multiplication and division and strategies for multiplication and division within 100 (OA)

2. Developing understanding of fractions, especially unit fractions (fractions with numerator 1) (NF)

3. Developing understanding of the structure of rectangular arrays and of area (G)

4. Describing and analyzing two-dimensional shapes (G)

In a 3rd grade math class you should observe students engaged with at least one math standard and practice:

Content Standards

Operations and Algebraic Thinking (OA)

- Representing and solving problems involving multiplication and division
Understanding properties of multiplication and the relationship between multiplication and division
Multiplying and dividing within 100
Solving problems involving the four operations and identifying and explaining patterns in arithmetic

Number and Operations in Base Ten (NBT)

- Using place value understanding and properties of operations to perform multi-digit arithmetic

Number and Operations—Fractions (NF)

- Developing understanding of fractions as numbers

Measurement and Data (MD)

- Solving problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects
Representing and interpreting data
Geometric measurement: understanding concepts of area and relating area to multiplication and to addition
Geometric measurement: recognizing perimeter as an attribute of plane figures and distinguishing between linear and area measures

Geometry (G)

- Reasoning with shapes and their attributes

Mathematical Practices

- Making sense of problems and persevering in solving them
Reasoning abstractly and quantitatively
Constructing viable arguments and critiquing the reasoning of others
Modeling with mathematics
Using appropriate tools strategically
Attending to precision
Looking for and making use of structure
Looking for and expressing regularity in repeated reasoning

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Mathematics What to Look For Guide

The practices below, which are aligned to the MA Model Teacher Rubric, should be evident in planning and instruction. Any particular lesson will demonstrate some of the practices, not all. For each lesson, artifacts or observables might include: lesson plan, tasks and assessments, teacher instruction, student discussion and behavior, or student work.

Standard I: Curriculum, Planning, and Assessment (I-A, I-B)

- The lesson focuses on grade-level cluster(s), content standard(s), or part(s) thereof.
- The lesson intentionally targets the aspect(s) of rigor (conceptual understanding, procedural skill and fluency, and application) called for by the content and practice standard(s) being addressed.
- The lesson includes clear explanations, representations, and/or examples to make the mathematics of the lesson explicit.
- The lesson intentionally relates new learning to students' prior skills and knowledge.
- The lesson includes opportunities to monitor learning throughout the lesson (such as through questioning or performance on short problems).

Standard II: Teaching all Students (II-A)

- The teacher poses high quality questions and problems, and provides time for students to develop and communicate their thinking about the content of the lesson.
- The teacher uses variation in students' ideas and solution methods to strengthen other students' understanding.
- The teacher addresses student variability and diverse needs (including English language learners and students with disabilities) to ensure equitable access to the lesson and achievement of the standard(s).
- The teacher guides student thinking toward the focus of the lesson and references student work and discussion to summarize the mathematics learned.

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