

MATHEMATICS K-6: Alignment of Curriculum/Assessment/Instruction

Begin with the End in Mind

What core curriculum learning will the progress report represent?
 Progress report grades should represent most current level of “core” understandings/performances.

- Number and Operations
- Patterns and Relations
- Geometry
- Measurement
- Data Analysis & Probability
- Problem Solving

What should ALL students know, understand, and be able to do?
 (See CORE CURRICULUM frameworks)

Universal strategies, but not specifically targeted in core:

<p>Engage in problem solving to develop conceptual understanding & procedures for:</p> <ul style="list-style-type: none"> • Number and Operations • Patterns and Relations (Algebra) • Geometry • Measurement • Data Analysis and Probability 	<p>Develop & use problem-solving strategies to reach reasonable solutions to problems:</p> <ul style="list-style-type: none"> • <u>Problem Solving</u> <ul style="list-style-type: none"> • Study What does the problem ask? How will the answer look? • Explore How might the problem be solved? • Record Solve the problem. • Check Does the answer make sense?
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Use process skills to gain access to learning:
 ↑ Reasoning -- Communication -- Connections – Representation ↑

Assessments
 How will I know if students understand it? Can do it? What will be used as evidence?

Curriculum Mapping
 How will the curriculum be “chunked” into units of study for the school year?

Instructional Mapping
 Select from existing resources to create **learning tasks** to help students access targeted curriculum. Learning tasks are selected with anticipated differences in student readiness, interests, and learning styles, in mind. ALL tasks must align to targeted learning goals.

Classroom Math Block
 Areas of Focus

<p>Students develop conceptual understanding & procedures as they solve <u>CONTENT</u>-based problems.</p> <p>Students work in groups, pairs, or individually, exploring, testing ideas & making sense of what they are learning, ALWAYS sharing-discussing-writing, ALWAYS responsible for determining if work is correct & explaining why.</p>	<p>Students develop <u>PROBLEM SOLVING</u> strategies to reach reasonable solutions to problems requiring content knowledge & application of various skills/procedures</p>
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FLUENCY & MAINTENANCE
 Only after conceptual understanding is reached, students PRACTICE for fluency and REVIEW for maintenance, as appropriate.

On-going assessment informs actual instruction and daily decisions

After listening to student ideas & monitoring participation, the teacher decides when instruction/mini-lesson is appropriate. The teacher decides when it’s time to provide information, clarify an issue, model or lead - when it’s time to attach mathematical notation or language to students’ ideas – when it’s time to intervene with suggestions or hints. **“Should they struggle some more, or should I intervene? Is progress being made?”**