#EachChildOurFuture

OTES 2.0 and Mathematics

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Introductions

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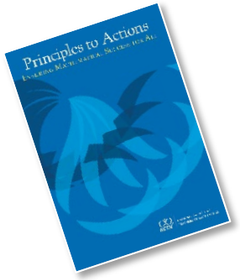
Virtual Meetups Meeting Norms

All meetings will follow the suggested norms:

- Be respectful
- Recognize that everyone has expertise
- Assume positive intent
- Seek clarification in language and ideas
- Share experiences
- Use the chat feature when you have a question
- Mute your microphone when not speaking

We encourage you to use your camera in the break-out rooms!

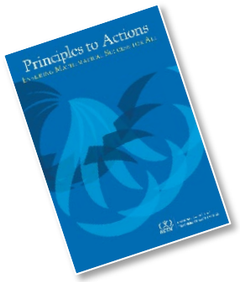


Effective Mathematics Teaching Practices

1. Establish mathematics **goals** to focus learning.
2. Implement **tasks** that promote reasoning and problem solving.
3. Use and connect mathematical **representations.**
4. Facilitate meaningful mathematical **discourse**.
5. Pose purposeful **questions**.
6. Build **procedural fluency** from conceptual understanding.
7. Support **productive struggle** in learning mathematics.
8. **Elicit and use evidence** of student thinking.

Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them
2. Reason abstractly and quantitatively
3. Construct viable arguments and critique the reasoning of others
4. Model with mathematics
5. Use appropriate tools strategically
6. Attend to precision
7. Look for and make use of structure
8. Look for and express regularity in repeated reasoning



Effective Mathematics Teaching Practices
"Building a Teaching Framework"

Establish math goals to focus learning

Implement tasks that promote reasoning and problem solving

Build procedural fluency from conceptual understanding

Facilitate meaningful mathematical discourse

- Pose purposeful questions
- Use and connect mathematical representations
- Elicit and use evidence of student thinking
- Support productive struggle in learning mathematics

Instructional Planning

The teacher plans lessons that intentionally make clear and coherent connections with student prior and future learning and includes strategies that communicate the connections to students - among lesson content, other disciplines and/or real-world experiences. The teacher plans lessons that use the input and

Accomplished
The teacher thoroughly and correctly analyzes trends and patterns in at least two sources of high-quality student data to develop measurable and developmentally appropriate student growth goal(s) and monitors student progress toward goal(s). The teacher plans for the facilitation of developmentally appropriate student data collection and strategies to assist in student goal setting and progress monitoring.
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Instruction and Assessment

Instructional Planning

The teacher participates in studying and evaluating advances in content and/or provides input on school and district curriculum.

The teacher consistently demonstrates content knowledge by using content-specific, developmentally appropriate language and content-specific strategies to engage students. The teacher's

engage students. The teacher's communication strategies and questioning techniques engage students in higher-level and creative thinking and stimulate student-to-student interactions.

Instruction and Assessment

student learning. The teacher gives students opportunities to engage in self-assessment, provide feedback to each other and reflect on their own strengths and challenges.

"consistently"

The teacher consistently monitors, addresses, articulates and anticipates individual student confusion or misconceptions by presenting

Instruction and Assessment

Learning is primarily self-directed with the teacher in the role of facilitator encouraging

The teacher encourages students to persist in the learning tasks. The teacher

Instruction and Assessment

“routinely”

Teacher routinely promotes opportunities for students to actively take part in developing goals toward mastery, and students are responsible for deciding how to demonstrate their learning. Instructional

Instruction and Assessment

instructional time. On-task behavior is evident and ensured by students. Students initiate responsibility for effective operation of the classroom.

consistent evidence of rapport and expectations for respectful, supportive and caring interactions with and among students and the teacher.

There is demonstration of regard for student perspectives, experiences and culture. The teacher models expectations and behaviors that create a positive climate of openness, respect and care. The teacher anticipates and

Instruction and Assessment

The teacher intentionally and strategically selects, develops and uses multiple assessments, including routine use of various diagnostic, formative and summative assessments. The teacher offers differentiated assessment choices to meet the full range of student needs.

The teacher analyzes data trends and patterns to measure targeted student learning, anticipate learning obstacles, modify instruction and differentiate to meet individual student needs.

Professionalism

The teacher consistently pursues best practices and sets, monitors and reflects on progress toward meeting short-term and long-term professional goals based on data analysis to improve student learning. The teacher takes appropriate action to meet the goals. The teacher collaborates with colleagues and others to share best practices.