K-8 Math Instruction Framework

Instruction (whole group)

Teacher Led

- - Use/models, manipulatives and/or tools (3)

Share learning target to focus learning (1)

Build from current levels of student understanding (7)

Expose and encourage multiple representations (3)

- Pose purposeful questions to help students determine point of confusion (5)
- Ensure conceptual understanding before procedural fluency (6)
- Make connections to real world (2,4)

Use precise math vocabulary (4)

Incorporate number sense routines (8)

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.

Group **Exploration**/ Collaboration

- Use collaborative structures with accountability for all students (4,8)
- Promote discourse using proper math vocabulary (4)
- Provide a variety of activities (2,3)
- Help students determine points of confusion (5,8)
- Differentiate activities for success and challenge for all

NCTM

Independent **Practice**

- Promote the use of resources, tools and time effectively (3)
- Promote opportunities for students to develop questions and monitor point of confusion (7)
- Monitors and re-teaches (8)
- Provide opportunities to practice key skills and develop fluency.

