



Park Hill School District

Building Successful Futures • Each Student • Every Day

Math Instructional Framework

Math Routines (10-15 minutes)

Number Routines and Sense-Making Routines

The purpose of **Math Routines** is to help students develop a deep understanding of numbers and mathematical concepts. These routines guide learners in recognizing patterns, making connections, and applying strategies to solve problems. These routines build number sense, which allows for flexibility in thinking, estimation, and problem-solving.

Teachers will

- Pose questions, which lead students to build, connect, and formulate meaningful mathematical strategies.
- Listen and focus questions around how students arrive at their answers and why.

Students will

- Display active listening skills.
- Share ideas through collaborative conversations.
- Create, modify, and evaluate strategies that build number sense and establish fluency, efficiency, and flexibility with numbers.

Resources:

- Reveal Daily Number Routine (Go Online)
- Reveal Daily Sense-Making Routine

Explicit Lesson (15-20 minutes)

The purpose of the **Explicit Lesson** is to provide clear, targeted instruction on a specific concept or skill. It helps guide students' understanding by breaking down complex ideas into manageable parts, often using examples and guided practice. The Explicit Lesson is designed to engage students, build foundational knowledge, and clarify key concepts before moving on to more independent work or problem-solving. It sets the stage for deeper exploration and application, ensuring students grasp the core ideas and can apply them in different contexts.

Teachers will

- **I do-** The teacher provides mathematical problems, which allow students to make connections between mathematical concepts and procedures.
- **We do-** The teacher allows students to practice the skill with scaffolding and immediate feedback. Physical, verbal, and visual prompts gradually fade.
- **You do-** The teacher allows students to apply the new skill during the Differentiated Practice and Application portion of the math workshop but continues to monitor performance and give feedback.

Students will

- Display active listening skills.
- Share ideas through collaborative conversations.
- Demonstrate conceptual understanding, procedural fluency, and strategic competence of the learning target.
- Practice the skill in the We do and You do sections of the lesson.
- Possibly use AVID strategies.

Resources:

- Reveal Pose the Problem
- Reveal Develop the Math (Choose Guided Exploration or Activity-Based Exploration)
- Reveal Bring it Together

Differentiated Practice and Application (20 minutes)

The purpose of the **Differentiated Practice and Application** is to provide learning activities that meet students' varying needs and abilities. It provides appropriate challenges for all students, reinforcing concepts for those needing support and offering enrichment for those ready for more advanced work. This approach helps ensure all students can succeed and develop a deeper understanding of math.

Teachers could be

- Monitoring performance and providing feedback.
- Providing Tier 1 flexible small group instruction.

Students could be participating in

- Independent Practice
- Assessment
 - Readiness Diagnostic
 - Math Probes
 - Unit Assessment
- Meeting with the Teacher
- Math Stations
- Fluency Practice

Resources (Reveal):

Build Proficiency

- On My Own
- Additional Practice
- Interactive Additional Practice
- Practice It! Game Station
- Own It! Digital Station
- Math Replay video online
- Spiral Review
- Fluency Practice
- ALEKS/ALEKS Adventure

Reinforce Understanding

- Small Group
- Take Another Look (online)
- Reinforce Understanding
- ALEKS/ALEKS Adventure

Extend Thinking

- Use it! Application Station
- STEM Adventure
- Extend Thinking
- ALEKS/ALEKS Adventure

Closure (5-10 minutes)

The purpose of **Closure** is to summarize and reinforce the key concepts learned during the lesson. It provides an opportunity for students to reflect on what they've learned, ask questions, and make connections. Closure helps solidify understanding, clarify any misconceptions, and ensure that students are prepared to apply the concepts in future lessons or real-world situations.

Teachers could be

- Providing time for students to share prior knowledge, reflect on new learning, and make connections.
- Using this time for quick formative assessment to plan next instructional steps.

Students will

- Articulate new learning and understanding verbally or in writing.

Resources (Reveal):

- Answer the Essential Question
- Exit Ticket
- Bring it Together
- Reflect Question

PRINCIPLES TO ACTIONS

Ensuring Mathematical Success for All

Mathematics Teaching Practices

- » Establish mathematics goals to focus learning.
- » Implement tasks that promote reasoning and problem solving.
- » Use and connect mathematical representations.
- » Facilitate meaningful mathematical discourse.
- » Pose purposeful questions.
- » Build procedural fluency from conceptual understanding.
- » Support productive struggle in learning mathematics.
- » Elicit and use evidence of student thinking.



Standards for Mathematical Practice

1. Students will make sense of problems and persevere in solving them.
2. Students will reason abstractly and quantitatively.
3. Students will construct viable arguments and critique the reasoning of others.
4. Students will model with mathematics.
5. Students will use appropriate tools strategically, including technology tools.
6. Students will attend to precision.
7. Students will look for and make use of structure.
8. Students will look for and express regularity in repeated reasoning.

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