



BROOKVIEW ELEMENTARY SCHOOL

MATHEMATICS FRAMEWORK



MATH ENERGIZER or HOOK (5 -10 Minutes)

Environment

- Layout is arranged in a collaborative format which allows students to hear and see instructional materials and promote participation and engagement

The teacher is

- Explicitly teaching vocabulary instruction
- Modeling using SMP's by thinking aloud to solve the math warm-up
- Introducing new games or work activities

MINI-LESSON (10 -15 minutes)

Environment

- Standards posted
- Essential Question/ I CAN statement posted
- Visual aids are evident (anchor charts, word walls, thinking maps, etc.)

The teacher is

- Aligning instruction with Essential Question/I CAN statement
- Modeling skills & Problem Solving Strategies
- Utilizing higher order questioning techniques
- Monitoring student understanding and adjusting instruction as needed
- Using visual aids purposefully

The students are

- Actively engaged (using manipulatives, modeling with abstract and concrete representations, problem solving)
- Able to explain what and why they are learning
- Practicing a skill or strategy with the support of the teacher and/or peers
- Using manipulatives to reason abstractly and quantitatively
- Students work with partner

GUIDED MATH/MATH STATIONS (45-60 minutes)

Environment

- Management routines are evident
- Room is conducive for the following math stations:
 - Guided Math (Teacher Station)
 - Manipulative Exploration (Games)
 - Technology (computers/Smart Board)
 - Automaticity/Fact Fluency
 - Skill review
- Materials are readily available for teachers and students
- Stations are labeled and flexible groups are established based on data (i.e. STAR Data, common assessments, etc.) Group Schedules
- All students are actively engaged during station rotations

The teacher is

- Meeting with small groups of students (six or less daily)
- Providing small group reteach, conferencing &/or extension
- Facilitating collaborative problem-solving
- Using differentiated activities, assignments, and questioning strategies
- Explicitly teaching vocabulary instruction and math strategies
- Modeling using SMP's, graphic organizers, manipulatives and "Think A-Louds"
- Monitoring independent stations
- Collecting data by taking anecdotal notes and provide feedback immediately
- Periodically progress monitoring students with common assessments, exit tickets, etc.

STATIONS

The following math stations are required during the guided math block.

- Guided Math (Teacher Station)
- Manipulative Exploration (Games) Technology Station (computers/Smart Board)
- Automaticity/Fact Fluency Station
- Skill review

The students are

- Working on tiered activities by Content, Process, or Product
- Practicing and using various strategies to problem solve (i.e. graphic organizers, pictures, etc.)
- Writing to explain or defend their responses in math journals
- Using manipulatives to reason abstractly
- Completing choice board activities
- Utilizing technology to practice skills

THINK ALOUD/REVIEW and Wrap Up (5-10 minutes)

Environment

- Materials are easily accessible for students and teachers

The teacher is

- Modeling thinking process for problem solving & test-taking strategies
- Using visual aids purposefully
- Reflecting on what worked and what needs to be revamped
- Using a quick formative assessment of student learning

The students are

- Sharing and modeling strategies learned
- Completing exit tickets
- Asking and answering questions about the lesson