The First 15 Days of Guided Math: Setting the Stage

| Day | Focus | Learning Outcomes | Lesson | Activities and Teacher Notes |
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| Week 1: Establishing Routines and Procedures for Math Workshop | | | | |
| 1 | What is Math Workshop? Math Workshop is a time when we work independently on math. | Students can describe what Math Workshop is and why it is important. | Class discussion and creation of an anchor chart (shared writing) telling what Math Workshop is and listing ideas why it is important. | Reasons why it is important:   Math practice to help us learn and remember   Learn to work independently   Learn to work with partners   Allows the teacher to work with small groups and to confer |
| 2 | What does Math Workshop look like and sound like? | Students can identify how Math Workshop should look and sound. | Review what Math Workshop is and why it is important. Class discussion of what Math Workshop should look like and sound like so it can be successful. Add to the anchor chart on Math Workshop. | Possible anchor chart notes:  Looks like   Students working on math   Manipulatives used   Students writing about math   Students work in one place   Students playing math games  Sounds like   Soft talking about math   Quiet enough so other can work |
| 3 | What do good mathematicians do as they work during Math Workshop? | Students know what the routines and procedures are for their independent work during Math Workshop. | Review the Math Workshop anchor chart. Class discussion on the expectations for their behavior as mathematicians during Math Workshop. Create an anchor chart of no more than 5 or 6 criteria. | Have in mind effective routines and procedures. Lead students to consider them by focusing on how Math Workshop should look and sound. Suggest possible problems they might encounter and how to solve them. Possible examples:   Stay on task and in your workspace.   Clean up your workspace when you finish.   Speak in a soft voice about your math work.   If you do not know what to do, …   Use math materials appropriately. |
| 4 | What do good mathematicians do as they work during Math Workshop? | Students know what the routines and procedures are for their independent work during Math Workshop. | Review what Math Workshop is and why it is important. Revisit the anchor chart on routines and procedures. Focus on the first 2 or 3. One at a time, examine them in more detail. | For each routine:   Model how it looks.   Have students role play it.   Have a student show how it should not look and ask other students to critique it.   Have students talk about how it should look.   Have the student correct the behavior. |
| 5 | What do good mathematicians do as they work during Math Workshop? | Students know what the routines and procedures are for their independent work during Math Workshop. | Review what Math Workshop is and why it is important. Revisit the anchor chart on routines and procedures. Focus on the remaining routines. One at a time, examine them in more detail. | For each routine:   Model how it looks.   Have students role-play it.   Have a student show how it should not look and ask other students to critique it.   Have students talk about how it should look.   Have the student correct the behavior. |
| Week 2 Math Workstations: The Nuts and Bolt of Math Workshop | | | | |
| 6 | What are Math Workstations? Where do we work during Math Workshop? | Students know what workspaces they may use during Math Workshop. | Review the routines and procedures with the class. Show students where they will work during Math Workshop and how they will transition to their workspaces. | Have students practice moving to their workspaces while following the routines and procedures. Then have students self-assess. What did they do well? What needs more work? Repeat the process. |
| 7 | What are Math Work Stations?  Where are they stored? | Students know how Math Work Stations are stored, how they access them, and how they put them away. | Review the routines and procedures. Review where students work during Math Workshop. Introduce Math Workstation Tasks—where they are stored and how students are expected to access them. Discuss how students should clean up their work space and return Math Workstation Tasks. | Provide enough Math Workstations for students to work in small groups or pairs. Each station should have the same simple task. Have students practice getting their Math Workstation Tasks and moving to their workspaces. Have student practice putting them away. Debrief—students self-assess how they did. Repeat. |
| 8 | What are Math Workstations? How will we know what to do? | Students are able to find the menu/instructions for Math Workstation Task. | Review routines and procedures. Show students what they can expect to find when they open their Math Workstation Tasks. Focus on the menu or instructions. | Model how students will find the menu/instructions in the Math Workstation and use it to do the task. Using the Math Workstation Tasks from the day before, ask students to get the Math Workstation Task, find the menu/instructions and do the task. Debrief. |
| 9 | What are Math Workstations? What are Talking Point cards? | Students understand that a Talking Points card provides math vocabulary they may need to talk about the task. | Review routines and procedures. Show students what they will find in a Math Workstation. Focus on the Talking Points card. | Model how to use the Talking Points card to talk about the math task. Ask students to role-play using the card. Have a student model incorrect use. Have students critique it and then have student role-play correct usage. Ask students to get their Math Workstation Tasks and move to their workspaces. |
| 10 | What are Math Workstations? How do we use them independently? | Students are able to get their Math Workstation Tasks, move to their workspaces, find the menu/instructions, complete the task, use the Talking Points card, and return the Task. | Review the process of getting the Math Workstation Tasks, using the menu/instruction, using the Talking Points card, completing the Task, and then returning the Task when asked. Introduce a signal (a chime or other soft sound) for completing tasks and cleaning up workspaces. | Have students practice the entire process, debrief, and then practice again with a debrief session. Refer back to the anchor chart, if needed. With the second practice, give students more time to work to build stamina. During this practice time, do not allow students to interact with the teacher. Observe and end the practice if students are having difficulty following the routines and procedures. Discuss this in the debrief. |
| Week 3: Thinking Like Mathematicians—Focusing on Math Processes | | | | |
| 11 | What do mathematicians do?  (Communication and Representation ) | Students understand that mathematicians share their thinking by talking about it, writing about it, and representing it in multiple ways. They understand that they are expected to write about and represent their mathematical thinking daily. | Pose a simple problem for the class to solve working together. After the solution is found, teacher models talking about the mathematics involved in the solution. Using shared writing, the class with the teacher as scribe writes about the problem solving process. Teacher emphasizes the importance of staying focused and using appropriate mathematical vocabulary. Discuss the use of the math word wall. | Include a Math Workstation Task that requires students to solve a problem and then write about how it was solved. Have students practice the entire Math Workshop process, debrief, and then practice again with a debrief session. Refer back to the anchor chart, if needed. With the second practice, give students more time to work to build stamina. During this practice time, do not allow students to interact with the teacher. Observe and end the practice if students are having difficulty following the routines and procedures. Discuss this in the debrief. |
| 12 | What do mathematicians do?  (Connections) | Students understand that mathematicians expand their thinking by exploring how math ideas connect to other areas of math, to their own experiences, and to the real world. | Introduce the idea of making connections—link it to literacy comprehension strategies. Choose a math word or concept and think-aloud, sharing how you think it connects with other math concepts, things in your own life, and the real world. Choose another math word or concept for the class to consider. Create an anchor chart recording students’ connections to the word or concept. | Include a Math Workstation Task that requires students make connections to a math word or concept. Have students practice the entire Math Workshop process, debrief, and then practice again with a debrief session. Refer back to the anchor chart, if needed. With each practice session, give students more time to build stamina. During these practice times, do not allow students to interact with the teacher. Observe and end the practice if students are having difficulty following the routines and procedures. Discuss any problems that arise in the debrief. |
| 13 | What do mathematicians do?  (Reasoning and proof) | Students understand that mathematicians must be able to justify their mathematical thinking. | Ask students why teachers ask them “How do you know?” Discuss how it is important to not only be able to state a mathematical fact, but also to be able to justify it. Brainstorm synonymous words and phrases for the word justify (explain, prove, express, give reasons why, illustrate why, describe). Provide examples of mathematical work—some of which includes justification and some of which does not. Have students examine the examples and discuss whether or not each example includes justification. | Include a Math Workstation Task that requires students to justify their work. Practice the entire Math Workshop process. With each practice session, give students more time to build stamina. During these practice times, do not allow students to interact with the teacher. Observe and end the practice if students are having difficulty following the routines and procedures. Discuss any problems that arise in the debrief. |
| 14 | What do mathematicians do?  (Problem Solving) | Students understand that the most efficient and effective way to solve mathematical problems is following a logical process. | Introduce the problem solving process by sharing a personal scenario of a problem to be solved. Describe being unsure where to begin—what needed to be done to solve it. Share the problem solving graphic organizer (for primary students, Problem Solving Man). Discuss each of the steps in the problem solving process. As a class, solve a sample problem using the graphic organizer. | Include a Math Workstation Task a simple problem solving task for which students will use the problem solving graphic organizer. Practice the entire Math Workshop process. With each practice session, give students more time to build stamina. During these practice times, do not allow students to interact with the teacher. Observe and end the practice if students are having difficulty following the routines and procedures. Discuss any problems that arise in the debrief as students self-assess their work as a class. |
| 15 | What do mathematicians do?  (Accountability) | Just as mathematicians take responsibility for their work, students understand that they are accountable for the work they do in Math Workshop. | Review with students:   Math Workshop anchor chart   Routines and Procedures anchor chart  Give examples of how mathematicians are accountable for their work:   accountants-people rely on their computations   engineers-bridges must hold the weight of cars and trucks   sales clerks—employers expect sales proceeds to be accurate   parents—how to allocate income Remind students that they are also accountable for their independent work. Share examples of ways they will be held accountable: recording sheets, math journals. This lesson should be brief so that most of the class is spent practicing working independently. (If students are working well independently, let them know that Math Workshop with small-group lessons will begin next week. If not, continue to practice a few more days to build stamina.) | Include Math Workstation Tasks with forms of accountability. Practice the entire Math Workshop process. Do not allow students to interact with the teacher With this practice session, students should have developed increased stamina. However, continue to observe and end the practice if students are having difficulty following the routines and procedures. Discuss any problems that arise in the debrief as students self-assess their work as a class. |

Anchor charts are shared writing based on class discussions. The teacher guides the discussion, but records student ideas on the chart. It is placed on display in the classroom for future reference. It may also be added to later as new ideas arise.