

# The Elements of Math Workshop

The major parts of math workshop are a warm-up, a mini-lesson, rotations (which include guided math groups, independent practice, and conferencing), and closure. You do not have to follow this format exactly. Instead, mix, match, and tweak things to make math workshop work for your classroom. See page 6 for more information on how math workshop can be changed to better fit your needs. Once you understand the basics, you can use the information below to plan your own math workshop lessons. Refer to pages 9 and 10 for more information on planning math workshop lessons.

## 1 Warm-Up about 5 minutes

The warm-up is used to get students thinking mathematically and prepare them for the mini-lesson. It can be the same every day, or changed to relate to the lesson focus. You may choose to discuss only a portion of the assignment, such as a few sections of the calendar bulletin board or a single review problem.

### Options\*:

- number talks or number study
- problem of the day
- calendar time
- quick games (for example, Buzz or Around the World)
- discussion of an incorrectly solved problem
- number of the day (use the template on page 183)
- fact fluency practice
- daily review problems

## 2 Mini-Lesson 10–15 minutes

The mini-lesson is a teacher-led, whole-group activity. This is when new vocabulary and foundational information should be introduced and modeled. Teachers should model math thinking as they work through example problems. Often, students work with a practice problem to clear up any misconceptions.

### Options\*:

- present a textbook lesson
- show an introduction video
- solve a problem and think aloud
- demonstrate a new strategy
- direct a hands-on activity
- create an anchor chart
- share a math read-aloud
- review the previous day's lesson

\*Please note that the options provided are a starting point and there are many more options you can explore for each section.

# 3

**Rotations**  
10–20  
minutes each

Students rotate through guided math with the teacher, independent practice, and workstations. This is also the time when teachers may choose to skip small group instruction in favor of one-on-one conferencing with students.

## Guided Math

During this time, you work with small (eight or fewer students), flexible, leveled groups of students to extend and enhance the mini-lesson. Students use manipulatives to better understand the reasoning, procedures, strategies, etc., of the topic. Focus on using math talk and math tools to make sure students really understand the topic. Begin with the lowest group so they do not work on independent practice until after small-group instruction. Like the mini-lesson, these lessons can follow the warm-up/explanation/guided practice/independent practice/assessment model, although they don't have to.

## Independent Stations

This segment is also known as centers, rotations, workstations, etc. Activities can be individual, partner, or small group and often include both practice of the current skill or topic and review of past skills. Activities should be introduced ahead of time so students can work independently and should be at a level that won't produce frustration. Students can follow a strict rotation or may be given daily choices as long as they complete certain set activities each week.

### Options\*:

- math games and activities
- fact fluency practice
- Solve the Room activities
- technology centers (including online games and district-mandated math programs)
- practice sheets (*Note:* The practice sheets included in the lessons are all different, so students can progress through them as they gain understanding of the skill.)
- journaling and/or interactive notebooks

## Conferencing

Instead of leading guided math groups, you may choose to periodically observe students during independent stations or pull students for one-on-one conferencing. This allows for formative assessment and more targeted instruction for students who need more help with a skill. This is also an ideal time to do state- or district-mandated quarterly testing.

# 4

**Closure/  
Reflection**  
3–5  
minutes

The closure is a short, targeted way to wrap up the learning students did during math workshop. It is the perfect time to review the math objective or essential question and answer any questions students may still have.

### Options\*:

- exit tickets
- allow a few students to explain an "ah-ha!" moment they had
- think/pair/share problem-solving
- math talk prompts
- quick journaling
- students can share what they learned in their own words
- Q and A time

\*Please note that the options provided are a starting point and there are many more options you can explore for each section.

# What Does Math Workshop Look Like?

Due to the nature of the workshop model, math workshop will look different in different classrooms. You can change it however you need so that it works best for your classroom. See below for ideas and examples of how you can reshape math workshop for your needs.

## Timing and Structure

- You can conduct math workshop daily, a few times a week, or monthly.
- Or, you can use one or two days to teach longer whole-class lessons and use the remaining days for rotations.
- Meet with each leveled group daily, or only once or twice a week, depending on how long your math block is.
- Have students visit every station daily or visit each station once each week.

## Content

- Use your textbook, a prescribed curriculum, or make your own lessons.
- You can have students use math notebooks for recording work and/or journaling.
- Use the same handful of simple games so you don't have to reinvent the wheel (for example, sorting activities, puzzles, concentration, etc.).
- The lessons provided in this book are interchangeable. If you don't like one or more of the suggestions, replace it with your own.

## Assessment

- Build in formal assessment as a longer closure, as a station to visit, or take a day off to administer a test.
- You may choose to have students record the results from each activity or use a checklist during rotations.
- See page 13 for more information on accountability during math workshop.

## Grouping

- Groups do not have to be the same size.
- You can have more than one group at the same level to ensure small groups.
- To group students, you can use formative assessment, pretests, or group them on the fly after observations made during the previous day or the mini-lesson.
- You can choose to move students between leveled groups as needed (which could even mean daily) or after more formal assessments.

## Choice

- You can require students to visit rotations in a certain order and/or on specific days.
- Or, you can allow students to choose which centers to complete each day.
- You may choose to make students responsible for completing all of the rotations by the end of the week, or you can make some rotations mandatory each day (such as independent practice, fact fluency, and technology centers).
- Students can complete rotations at their desks so you can keep an eye on them, or you can allow them to work in various spots around the room.

# Managing Math Workshop

Math workshop can be daunting to newcomers because of all of the elements that need preparation and upkeep. However, the tips and suggestions below for managing the various parts of math workshop will help you get started on the right foot and maintain it throughout the year.

## Starting and Maintaining Math Workshop

- Set student expectations before beginning. See page 11 for more information.
- Don't underestimate the power of positive reinforcement.
- Stop and practice the routines and procedures as needed throughout the year if students aren't following expectations.
- Start slow! Begin with only one game or activity during rotations.
- Practice any new games or activities with the whole group first.
- Keep it simple. To begin with, use familiar activities such as concentration, duel, or dominoes.
- As you introduce new activities through the year, use the same formats so you don't have to teach a new set of rules each time.
- If possible, use assistants or parent volunteers to monitor students during the first few weeks.
- During weeks with field trips, assemblies, etc., try to move math workshop to a different time. Or, use the entire week to review old concepts and meet with groups that need more help with old concepts instead of introducing a new topic.

## Organizing Materials

- Keep all of the necessary supplies in the area where you meet for guided math. That way, students don't waste time looking for materials such as pencils, paper, and manipulatives.
- Use bins or baskets to organize activities, games, and small group supplies for guided math, so everything needed to complete the activity is in one easy-to-grab place.
- Make all math manipulatives visible and accessible so students can use whatever tools they need whenever they need to.
- Make several copies of each activity so multiple pairs or groups of students can work on the same one.
- Designate a student or students each week to be the Materials Master. Their job is to make sure all materials are cleaned up and organized each day.

# Managing Math Workshop, cont.

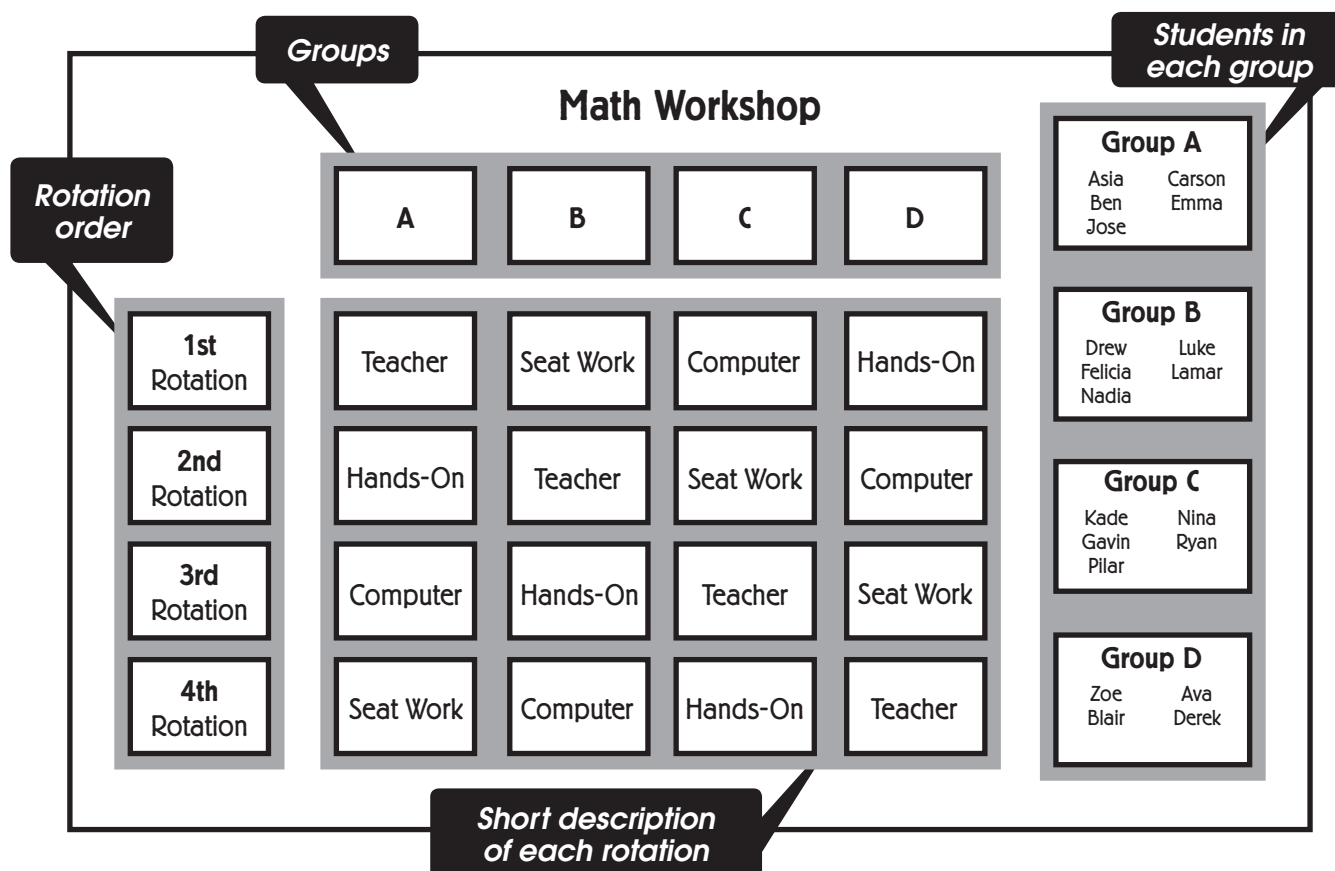
## Classroom Management

### Managing Rotations

- Use a bulletin board, pocket chart, or interactive whiteboard for a visual reminder of the rotations order. Refer to the example below.
- Use self-stick notes with student names to make reorganizing leveled groups quick and easy.
- Use visual cues and directions on games so students can work independently.
- When students are absent, you can catch them up during conferencing/one-on-one time or temporarily move them to a lower group.

### Student Behavior

- For early finishers: have review, extension, or older activities available; make a packet with word problems or challenges to complete; or create a chart listing things they can move on to.
- Foster independence with an “ask three before me” policy.
- Have students use a special hand signal so they can ask to use the bathroom without interrupting guided math.
- For students who have trouble working independently, remove them from rotations and have them sit at a desk near the guided math group until they are ready to rejoin rotations. It may be helpful to have those students start back slowly, with only one independent activity reintroduced at a time.



# Planning and Preparation

As with anything, math workshop will be less stressful and have a better chance of success if you plan in advance. Use your district’s scope and sequence, textbook curriculum, or similar to plan roughly when and how long to teach each topic. Then, plan the specifics for only a week or two at a time to allow room for remediation or moving on early, depending on what students need. Use the reproducible below to create a high-level plan for a week. Use page 10 to plan more specifically for the guided math groups for that week.

## Math Workshop

Week of \_\_\_\_\_

Objective:		Essential Question:	
Mini-Lesson		Rotations	
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			

# Guided Math

Week of \_\_\_\_\_

<b>Group 1</b>	Level:	<b>Group 2</b>	Level:
Students:		Students:	
<b>Group 3</b>	Level:	<b>Group 4</b>	Level:
Students:		Students:	

	Group 1	Group 2	Group 3	Group 4
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				

# Student Expectations

Math workshop will not be perfect from the start. It may be a bit chaotic and students may try to play instead of work. But, by setting student expectations early, and with plenty of practice and modeling, math workshop can run smoothly.

## Questions to Consider

**How should materials be handled?** Will there be dedicated students in charge of the materials? Where will they be stored? When can students access them? How and when should cleanup happen? Should there be a one-minute cleanup warning before switching rotations or is cleaning up part of the transition time? Who is responsible for cleaning up common areas?

**How and when can students work with others?** What activities should be done alone, with a partner, or as group work? Who and when can students ask for help?

**What does staying on task mean in math workshop?** What level should the volume be? Where should students be working? How should students be accountable for the work they've done? What should the conversations sound like?

**What happens if students make mistakes or struggle?** Who can they ask for help? What materials and strategies are available if a problem is too hard? Can they skip difficult problems or save them for conferencing?

**When is the teacher available?** Can students interrupt guided math groups? How can they signal they need to go to the bathroom? What is an appropriate reason to interrupt the teacher? Who else can help students and answer questions?

## Setting Expectations

One of the first things you should do when beginning math workshop is to clearly outline the expectations. While you don't have to do this in tandem with making an anchor chart, the visual reminder can be helpful for retaining the expectations as well as serving as a visual reminder throughout the year.

- It can be helpful to frame the expectations simply: What should math workshop look like? What should it sound like? What is the student responsible for? What is the teacher responsible for? Refer to the Questions to Consider in the section above for more specific things to discuss.
- Use the reproducible provided on page 12 for students to complete and keep in their math notebooks or folders. Or, have students and parents sign it as a behavior contract at the beginning of the year. It may be helpful to preprogram the information before copying for students who need it.
- Review the anchor chart often in the first few weeks. Start reviewing it daily before beginning math workshop, and then gradually review it less often as students become more self-reliant.





Looks Like



Sounds Like

# Math Workshop



My Job



My Teacher's Job

## Ensuring Accountability

While moving to a math workshop model has many benefits, it removes the traditional assessment and accountability options in the traditional teaching model. However, it's still necessary to prove in some way that students are working hard toward learning goals and making progress throughout the year. See the lists below for suggestions.

### Accountability During Rotations

- Have students record their math thinking (for example, number sentences solved during a game) on whiteboards or something else that is highly visible. That way, you can see at a glance if students are working or not.
- Use activities with recording sheets that you can collect.
- Or, use a recording sheet where students record the rotations they visited and details about their work at each rotation.
- If desired, collect students' written work and/or recording sheets for a participation grade. Use the reproducible on page 14 as a weekly rotation recording sheet or create your own with the rotations specific to your math workshop (see example below).
- Initial, stamp, or sticker students' work daily. You can circulate and do this quickly during closure each day.
- Have students use a math journal to record their work during rotations.
- Utilize technology if possible—many programs and apps have built-in reports on the teacher side.

### Assessment

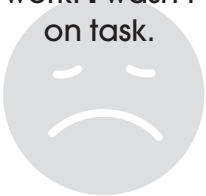
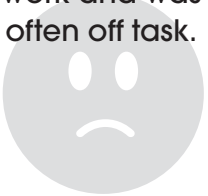

- When not meeting with groups, use the guided math time to visit different stations and have students explain their math thinking for a quick formative assessment.
- During closure, use exit tickets. Use them as formative assessments, or keep them in a math notebook or portfolio to show progress.
- Designate one math workshop day a week or month for a more formal assessment that can be used for a grade or kept in portfolios.

Name _____		Date _____			
<b>Math Workshop</b>					
Mark off each rotation as you complete it. You must do seat work and technology every day!					
<b>Mon</b>	Meet with Teacher	Seat Work	Technology	Fast Practice	Math Game
<b>Tues</b>	Meet with Teacher	Seat Work	Technology	Fast Practice	Math Game
<b>Wed</b>	Meet with Teacher	Seat Work	Technology	Fast Practice	Math Game

Name \_\_\_\_\_ Week of \_\_\_\_\_

Math Rotations

Day	Rotation(s) Visited	Done?	Rate Yourself
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			

1	2	3	4
I didn't do any work. I wasn't on task. 	I didn't do my best work and was often off task. 	I worked well, but was off task a little. 	I worked hard and stayed on task. 