

Advice From Colleagues: Pacing

How can I complete a lesson in a day?

- I use the Math Boxes from the previous lesson as a wake up activity for the students to do while I do lunch count, attendance, and whatever else needs to be collected. We correct Math Boxes together using the overhead projector later in the morning at the beginning of our math time.
- I cannot express enough the need to be prepared. Know the content you are teaching; know the materials you need; have everything available. Preparation is 90% of being able to complete lessons each day.
- Many lessons are easy to complete in a day. Explorations are hard to complete. I find it helps to put the game from one day to another day with a shorter lesson. Sometimes I need 2 days to complete these longer lessons.
- I always begin my lesson with the Math Message followed by the Math Boxes. I explain to the students that as they finish a task they should always be working on the Math Boxes. Most of the students will finish them in the time given for the class and this allows us to discuss them near the end of the lesson.
- We did not worry about getting to Part 3! Math games were played if time allowed—if not we played them for sure on Friday “Game Day.” [Remember not to sacrifice games though. They are a major practice component and should take about 20% of your math time allotment each week.]
- Play math games in the morning so that students get ready quickly because they want to play the games.
- Read the lesson multiple times. Prepare in advance and then re-read the lesson. When pinched for time this is the hardest part to complete. If you know the lesson well it is much easier to keep up a steady pace.
- Don't expect mastery from everyone every day. It is okay for students to grapple with some of these concepts. They need multiple exposures to the content. Trust the manual and pacing guide. Don't dwell on a topic until all of the kids 'get it.'
- If you are just starting out, focus on the first two parts of the lesson. Save the embedded lesson games until the end of the period to make for easier and quicker transitions. But be sure to leave time for them!
- 5 minutes for Mental Math Reflexes, 10 minutes for Math Boxes, and the rest for the lesson.
- Read the lesson ahead of time and see if it is a 2-3 day lesson.



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- Make the Math Message part of an entry task in the morning, so that all written work is completed and just needs to be pulled out at math time. Do Mental Math and Reflexes orally whenever possible. Collect and review Home Links during entry task time in the morning if math period is limited.
- Do the Mental Math and Reflexes, homework check, and Math Message at a separate time if necessary.

How might I incorporate students' first language when implementing Everyday Mathematics lessons?

- Encourage students to talk about mathematical concepts in their own language.
- Have students use the Math Word Bank pages (in the masters section at the back of the Differentiation Handbook) to record new words. They can record the word in their own language on these pages to help them remember the meaning of the words in English.
- Have students write about their thinking in both their own language and in English when they are able.

What other suggestions or comments about supporting English-language learners would you like to share?

- Invite parents into the classroom to see what their students are doing and to experience the activities and content as the students do.
- Invite parents to participate in supervising games or exploration stations. Make sure they have time to figure out the instructions before they come to help in the class.
- Validate and incorporate different ways to think about and solve problems into the classroom context. Often English language learners have had different experiences with mathematical concepts that they can share with the class.
- Limit homework discussion.... I've seen this take WAY too long.
- Recognize that skills do not need to be hammered into mastery in one lesson. Looking at objectives in the first part of a lesson helps tremendously with this. So does using the checklists... they help teachers develop the perspective of the spiral... also the Differentiation Handbook includes charts to help you figure out when you will revisit content.
- Plan in advance—by the year, the quarter and each week. After I did all that I knew more or less how much time was needed. Some days we had to spend more time on math just to keep up.

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- Use the eplanner to help schedule your lessons so you know what pace you have to go. (Your school must subscribe to get eplanner.)
- Remember that the Math Boxes are for students to work in class with previously practiced concepts. If they are going home as homework and then graded the next day they lose their purpose and become a burden rather than a necessity. The first year I taught EM, I selected 2 or 3 Math Boxes to complete per day in class (if they were able to do more that was fine) because I needed to keep it manageable as well as provide sufficient re-exposure to a variety of concepts. Be aware of what the students have covered (if they are new too, you REALLY need to be selective in which Math Boxes you assign) and let them work independently, in partnerships or small groups to complete them.
- Study Links are only practice connected to each lesson. Students may have some difficulty with the page and can check their work against the answers provided in the Family Letter. Decide whether you want to “grade” them or check their understanding by looking at one or two items as a class and moving on quickly.
- The meat of the lesson is contained in Part 1 where you should spend the majority of your time. That should be your focus along with a rich math vocabulary development to support their mathematical learning. You can add in the other pieces (more Math Boxes) as time allows. After all they will struggle with the Study Links and the Math Boxes if they never have enough time to practice the concept during the lesson.

How can I complete the majority of the lessons in the program during a school year?

- Get your students in routines. Have them know how to get tools in the shortest amount of time. Set up a Math Message board so that students can find out what they need to do as they enter the room each morning. Having the Math Message done before class begins saves much time.
- The key is to make it a priority and aim to complete a lesson each day. An occasional day without math will not set a class back, but if other things (Like field trips, Friday fun, math games day, movies, etc...) are replacing math time on a regular basis, it will be difficult to finish.
- Complete an average of 4 lessons per week.
- Friday’s are for games. When completing Explorations I do a two-day lesson.
- Just keep going—don’t expect mastery from all students on the same content at the same time!
- I have a “sacred” math time that is rarely touched by other school activities or specials.
- If you don’t complete a lesson in a day, finish it the next day, while starting the next lesson.



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- Find a parent volunteer, share the load with a team, anything that will help spread out the preparation of games and activities. Some games take an hour to prepare and we use it once!
- Get together with your grade level and plan together. This provides moral support and support for pacing.
- In sixth grade we strive for teaching 4 lessons per week. This puts us on pace to finish both journals by the end of the year. This also gives us a buffer day each week. We use this day to review concepts, do Math Boxes, play games, and use some of the Enrichment material.
- Plan out your year before the start of the school year. It doesn't have to be set in stone, but if you have a goal for the end of each month, try to get there. You can always revise the calendar as the year progresses, but make a goal for the end of each month and try to reach that goal. ePlanner can help, but your school has to have a subscription.
- Just keep telling yourself that the program spirals, and students do not have to master material before moving on.
- When I first started I used the Content by Strand poster provided in my teacher kit to keep me on track. I track from year to year to make sure I'm approximately at the same point in the lessons.
- You have to be willing to move on!
- Plan a Unit at a time. Always try and complete a unit before a long holiday.

How can I incorporate about an hour of game time per week?

- I have found it useful to have as many games as possible in plastic bags. Place all the materials needed in and label the bag. This way, students can simply pick up a bag and the game is ready to be played. This also makes games available to be played at a variety of times (when students are finished with other work they could play games, etc.) If you have game kits, students can also be trained on how to simply take out what is needed for a game quickly.
- I play the games about 15 minutes or 20 minutes or whenever they are suggested. Over a week's time the children get at least an hour or more of games.
- Pick one day as game day. Set-up rotating stations.
- Look at your yearly calendar and how many lessons you need to teach. There are between 110 and 125 lessons at each grade level. You will see that you can afford game days!
- We do learning centers at the end of the day. I use the games and Explorations as a math center.



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- Look through the lessons for the week and put longer games on days with shorter lessons and vice versa. Kids love to play the EM games CD. If you can have it available on several computers, kids will eagerly play as soon as they have completed their math journals. There is also an online version of the games, but your school has to have a subscription.
- Play the games first thing in the morning.
- Find a transition time during the day...10 minutes is all you need, and play your games then. I had mine when kids came back from recess so I could have them prepare things for the game before going out to recess.
- Create a choice board. Using their data, teachers can decide which games are needed to meet the needs of each cohort within the class. For the first 20 minutes, the teacher can decide where to place the students, then students can select which game they want to play.
- We make Friday game and make-up day. That way we can adhere to the district policy of no homework over the weekends.
- I teach EM using 4 campsites or centers. My students work with EM games for 20 minutes each day or over 1 hour and a half for the week.
- We use our computer time to play EM games on the computer.
- I've seen great use of 15 minute transitional time games use. Teachers need to organize materials and spend time on routine expectations for games use in order to do this.
- My students are allowed to play math games any time they get work done early in any subject. (Be sure that all students have a regular time to play games as this is one of the main practice devices in the program. If students don't play games, they won't get enough practice on their basic skills.)
- We like to play games in the morning while children are arriving—it motivates my students to get here on time, and I feel the practice is great, and those that come last do not miss an introduction to new lessons.

How can games be implemented so that individual students are practicing skills at appropriate levels?

- Sometimes I put children of equal abilities together and other times I put different abilities together. I change groupings. Sometimes I give children a choice of the game and partner to play with. Other times I tell who is working with whom on a specific skill. Other times everyone is working on a new game.





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- If you have access to online games (your school has to have a subscription), you can direct students as to which games they need to play. Your reports from the games will help you set up an individual plan for each student.
- Color code the directions for different levels.
- After the Progress Check, group students who are having difficulty with certain ideas. Then have a station set-up for those students with re-enforcement games.
- Create a schedule so during your math block students can log on to the online games.
- Send the games home for extra practice.
- Think about grouping kids by needs and being intentional about game use. Even something as simple as limiting the cards in a deck can make games more productive. The Differentiation Handbook has suggestions for adjusting the difficult or focus of several games in each unit in the individual unit overviews.
- See pages 23-25 in the Differentiation Handbook for general information about modifying games.

How might I collect assessment information about what students learn or practice while playing games?

- I created various short answer and extended response items about the games. This helped to hold 5th graders accountable for the games. They never knew which game would have an Exit Slip (found in the masters section of the Assessment Handbook) during the week so they always stayed focused and played all of the games. If they played the games, they were able to respond to the questions.
- Keep a clipboard with the students' name and objectives you want the students to meet while playing games. Write comments next to the students names. Go back later, and write it in the assessment checklists.
- If you are using online games, the reports are available. (Your school needs a subscription for these.)
- Walk around, listen, and watch how the children are involved. Are they playing correctly, are they having problems? Are the children playing properly or is one trying to make up his/her own rules. Use game record sheets whenever possible to hold children accountable for learning and playing the games. You can collect these as records of their progress.
- Record the observations and conversations. Create a checklist of the mathematics embedded in the game and check off the behaviors observed. Add a comment column to the checklist to write any additional important observations.





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How can I manage the spiral structure of the program to support student learning?

- Trust the spiral. Do not skip over lessons or teach out of order. Try your hardest to do all lessons with fidelity.
- Find little ways for your kids to practice skills all the time. For instance, have kids change the page number at the bottom of the page every day. (i.e. We are on page 135, multiply that number by 5. This is our new page number or we are on page 135, how many ones, tens, hundreds?) Have children record the start time, stop time, and elapsed time on their daily assignments. Do a count down with fractions or decimals.
- Keep going even when some of the students don't have mastery of the objective. Because of the structure of the program, it is okay to move on. Unlike in a traditional program, if students did not "get it" today, there will be other, later opportunities when they have more experiences, or embedded in a different context that will provide them with access to developing the skills or concept.

