SOME TIPS FOR CREATING A *MATHLINKS* LESSON PLAN

From the Scope and Sequence on a previous page, we see that *MathLinks* Grade 6 consists of just 33 lessons in the Student Packets, which comprehensively develop all the Common Core Mathematics Standards for the grade. These lessons typically take about 100 class hours of instruction, leaving ample time for review and a quiz, other Packet Resources in the Teacher Portal, and other mandated school activities. Thus, a typical 180-day school of *MathLinks* may break down like this:

Component/Activity	Estimated Class Hours
MathLinks lessons (33 lessons in 10 SPs, about 3 class periods per lesson)	100
Review activities in SPs (3 class hours per packet)	30
Packet Quizzes (1 class hour per packet)	10
Intervention/Enrichment (e.g. Packet Resources, Skill Boosters, Teacher's choice)	30
Mandated school activities (assessments, assemblies, etc.)	10
TOTAL	**180**

To plan your ***MathLinks* Year**, get a school calendar and note the start and "hard stop" dates of all 10 packets before the school year begins. Pay attention to district and statewide testing dates so that you complete the 33 lessons in a timely fashion. The Planning Page (ii) of each packet provides suggested timing for lessons.

Next, turn your attention to a ***MathLinks* Packet**.

- Begin with a comprehensive overview of the entire packet. Leaf through the TE, paying close attention to the answer key. This preview helps to understand the nature of the content and the work students will do.

- Preview the slide decks (or Slide Deck Alternatives) and lesson notes next to its student page. Look for teacher-guided opportunities to engage the students in discussions and collaboration.

- Assess, either formally or informally, if students need extensive review of prerequisite content or "just-in-time" support. Look at the Getting Ready problems at the beginning of each lesson, Essential Skills in Packet Resources, and even Skill Boosters as sources of refreshment or intervention.

- Look at the planning suggestions, especially the estimated class periods for each lesson. Identify pages and activities that seem reasonable for students to finish in any given class period. Think about which pages (or portions of pages) might be appropriate for independent work or homework. Students need not do every problem on every page. Teachers make these instructional decisions based upon student needs.

  Pay close attention to the activities that require some pre-planning, such as those that have "Reproducible" pages (for games, card sorts, matching activities, etc.), or those that require manipulatives. For efficiency, gather and organize all those materials before starting the packet.

- Block the number of days for each lesson, including details about which pages to use as classwork, groupwork, independent practice, and homework.

- The SP includes review activities for current packet content and spiral review of previous work. Take a close look at these and allocate time for them, as well as a packet quiz, which is located in the Teacher Portal.

- Explore the Teacher Portal. As teachers are learning the program, some find it helpful to print Packet Resources of interest and insert them into their Teacher Edition as reminders. Others just like to poke around on the portal and see what's available.

Because there is ample time, we hope students and teachers will enjoy digging into lessons, and exploring resources aimed to enrich, review, and customize the program for diverse learners.

STRATEGIES FOR REVIEW IN *MATHLINKS*

There is strong evidence that distributed practice increases retention of mathematical ideas (Nazari and Ebsesbach, 2019. In *MathLinks*, concepts and procedures are revisited through connections of Big Ideas within lessons and carefully designed spiral review (See Topic Analysis by Packet in **Program at a Glance**). Additionally, Packet Resources and other General Resources add variety for review of concepts, applications, and skills.

Throughout the year:

- Use Monitor Your Progress, Packet Reflection, and quizzes to assess growth and unfinished learning. Then use the Spiral Review Map to determine where difficult topics will reappear and build in extra time to emphasize them.
- Look to Packet Resources in the Teacher Portal for problems and activities that focus on topics where students need more practice.
- For struggling learners, spend extra time on Getting Started pages (in the Student Packet), or consider Essential Skills (located in Packet Resources) or Skill Boosters (available through the *MathLinks* login page) to improve foundational skills.
- To meet the needs of a wide range of learners, select from Math Talks, Nonroutine Problems, Tasks, Projects, and Technology Activities (located in Packet Resources) as review or extension options.

Prior to high-stakes testing:

- Establish "drop dead" stop dates for each packet. Be sure to cover the major work within the packet, and don't worry if everything is not completed. That way students will experience all concepts with time allocated for review along the way.
- Hold packets and return one or two per day prior to testing. Revisit pages or problems that were not completed or where students struggled.
- Use Tasks that focus on major work that were not yet completed during the year. As students complete a Task, use the *MathLinks* Rubric (see Using the *MathLinks* Rubric in Activity Routines) so that they will simultaneously review and improve their ability to communicate solutions effectively.

End of the Year:

- Use Packet Resources (e.g. Tasks and Projects) or other program resources (Puzzles and Games) to review or extend concepts with engaging activities.

CREATING A STUDENT-CENTERED ENVIRONMENT

A student-centered environment requires that students clearly express their mathematical ideas to each other. Teachers should encourage students to politely question and challenge each other. This takes practice and guidance. Some things students may say in a safe, student-centered environment:

- "That doesn't make sense to me. Will you repeat it?"
- "I'm not sure if I understand. Will someone else say it in a different way?"
- "I got something different. What I did was …"
- "I think you forgot to …"