

# Introduction: Using the SPS Mathematics Instructional Guide

The Mathematics Instructional Guide (MIG) is a tool to aid in the teaching of Everyday Mathematics (EDM) as it aligns to the 2008 WA State Grade Level Math Standards.

## Tools for Planning

**Overview:** This box provides a list of the concepts and activities focused in the unit. These are copied directly from the first page of each unit in the Teacher Lesson Guide (TLG).

**Vocabulary:** These are copied directly from the first page for each lesson in the TLG. Bolded vocabulary words have been added to match the standards.

**Games:** The games column lets you know what games are played during that lesson, in which part they are played and where to find directions or copy materials needed for the game. These are aligned to specific Performance Expectations.

**Advanced Prep:** The advanced prep column gives you a summary of all the materials you may need beyond the usual copies or EDM manipulatives. These include copies that may need to be done on special paper (i.e. tag) or cut out ahead of time; copies that may only be needed for groups or for pairs; and materials not included in your kit that need to be gathered. It also warns you if the lesson may take more than a day or lets you know if it is an “Explorations” lesson (grades 1-3). NOTE: Please note that the advanced prep apply to the EDM lesson as it is written in the TLG and that it may vary depending on what the comment suggests for the lesson.

**RSAs:** The Recognizing Student Achievement column is just a quick reference to the Formative Assessments found in the TLG. It is just a check point for a specific skill that should have been mastered by then as detailed in the TLG. These are also aligned to specific Performance Expectations

**Writing / Reasoning Prompt:** This column provides portfolio (writing) opportunities that some lessons include and which go with a specific Math Box problem. There are additional portfolio opportunities that do not specifically go with a Math Box. These are not listed in this column.

## Focused Content & Making Connections

**Learning Targets:** The Learning Targets are an attempt to draw a single area of focused content and depth from the activities in each lesson. The learning target tries to answer the question “what is the one thing that students should learn from this lesson?” The Learning Target can be used as your Clear Teaching Point. These are also aligned to specific Performance Expectations.

**Performance Expectations:** The wording for the Performance Expectations (PE) is a direct copy from the WA State Standards document. This column lists all the PEs that appear in the MIG for each lesson under the Learning Targets, Games, RSAs, and Comments. Sometimes, a PE aligned to Learning Target, Game or RSA, may be followed by an up ▲ or down ▼ arrow. This is to indicate that the activity either is much simpler than what the standards requires ( ▼ ) or goes beyond what the standard requires ( ▲ ). There may be other PEs that align to other activities in the lesson, but these are not listed.

**Big Ideas:** Big Ideas are based on the work and research of Randall Charles published in the *NCSM Journal of Mathematics Educational Leadership*. He defines a Big Idea as “a statement of an idea that is central to learning of mathematics; one that links numerous mathematical understandings into a coherent whole.” Big ideas are a key to making connections across many concepts and, because they don’t change, across many grade levels. See the “Overview of Big Ideas in EDM by Grade Level” on the next page. Note that even though they are divided into Primary and Intermediate Big Ideas, the ideas remain the same. The only difference may be in that the language in the primary ideas is a bit simpler and that some of the concepts from the intermediate grades are not included. Also the Big Ideas listed for each unit are not necessarily the only ones that can be used. Many units cover so many concepts that many more could have been listed. The ones shown are the most appropriate for a few of the main concepts covered in the unit.

Here are some suggestions on how to use Big Ideas:

- Post the Big Ideas in your classroom as they come up and keep them up the rest of the year.
- Choose one Big Idea that is most appropriate for the day’s lesson and start by discussing its connection to concepts previously learned.
- Refer to this selected Big Idea often during the lesson.
- When possible connect content in the lesson to other Big Ideas and Learning Target.
- At the end have students summarize the new concepts learned by discussing their connection to the Big Idea chosen.

### Comments

The task of aligning all the lessons in EDM to the 2008 WA State Standards revealed areas of content which needed to be addressed in more detail. The comments address those areas by adjusting and providing curriculum. Beside notes and suggestions the following are specific types of instructional changes:

**Modification:** This is a significant alteration to the lesson. This is a lesson that most teachers should do to better address the standards, but either very differently or parts have been replaced with other activities or a supplement. It is not just a small addition to the lesson.

**Optional:** A lesson or part of a lesson is made optional if it has little or no impact on grade level standards or support for the grade above. Teacher can decide on whether or not they do the lesson taking into consideration how it affects pacing. Optional lessons are not counted in the pacing.

**Skip:** A lesson or part of a lesson is skipped if it provides no foreseeable benefit to grade level standards and takes away time that could be used by other activities that better address the standards. Skipped sections should not be done. Some fifth grade lessons are skipped on the recommendation from the middle school coaches. In such a situation, the content is covered in depth in middle school. Skipped lessons are not counted in the pacing.

**Touch & Go:** This lesson or activity is a basic Introduction to a concept, often above grade level, but which supports the spiral. The content is not taught to mastery. One suggestion is to look for activities that would be more appropriately taught whole group or modeled by the teacher. Let the students know your intention and expectation for the lesson. Modify your Clear Teaching Point to match your expectations.

**Combine:** Combined lessons include activities from more than one lesson that have been selected and joined into a shorter period to reduce pacing when parts of lessons are skipped.

**Supplement:** A document provided with the MIG that contains the Supplemental Lesson, Project or an additional activity for a specific EDM lesson.

**Supplemental Lesson:** A lesson from another grade level or project that has been added to a unit to address specific standards. A Supplemental Lesson will have a supplement document to go with it.

**Supplemental Activity:** A description of lesson or activities that has been added to a unit to address specific standards. A Supplemental Activity will not have a supplement document to go with it.