Planning Guide
for Effective Mathematics Learning, Teaching, and Assessment over a 5-day cycle

Step #1
Know your learners, and
Know the learning
View the new learning from the eyes of the learner.

- What prior knowledge, understanding, and skills do your students bring to the new learning? (curriculum from previous grades)

What do you bring to the learning? Before beginning teaching and learning of math, reflect on your own knowledge and experience with the particular math concept, both as a student and a teacher. How does this translate to the vision for the learner?

Step #2
Plan for responsive and differentiated assessment and instruction
Unpack what students will need to know and be able to do (grade-specific curriculum). This will prepare you to co-develop success criteria and offer descriptive feedback.

- What is important to understand?
- What are the skills being developed?
- What strategies help you to be proficient with these skills?
- How can the learning be applied to practical, authentic situations?
- What does it look and sound like in action?
- How do you know when you are successful with this learning?
- How do you use this learning?

Think about how you can build opportunities into the lesson sequence to monitor the learning.

- What will help you to know that your students are "getting it"?

Step #3
Facilitate, assess and respond in a co-learning environment

- Develops conceptual understanding
- Connection of learning across strands and subjects
- Linked to real-world experiences and applications
- Evokes mathematical thinking and application of conceptual and procedural knowledge set out in the curriculum
- Encourages students to pose new problems and discuss solutions
- Responsive to learning needs
- Activates and builds on learners’ existing knowledge and skills
- Promotes models, tools, and representations to explore concepts, make connections and communicate thinking
- Embeds mathematical processes as essential aspects of learning and teaching

Step #4
Reflect on impact of assessment and instruction
to determine next steps

- Who needs more time and support with these ideas?
- Where does this learning fit with upcoming lesson sequences?
- What is the next step in the learning related to this lesson sequence?
- Where can I make connections to this learning?
<table>
<thead>
<tr>
<th>Step 1.</th>
<th>Reflection: What should my students currently understand and do?</th>
<th>What do my students need to learn?</th>
<th>Where are the students headed with this learning?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>What is the previous learning that my students have had related to this concept?</td>
<td>What mathematical knowledge and skills will be addressed in this sequence?</td>
<td>How does this learning connect to what my students will learn next year?</td>
</tr>
<tr>
<td></td>
<td>What should my students be able to do now?</td>
<td>Is this learning connected to other concepts learning this year?</td>
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**Step 2. Plan for Instruction and Assessment**

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<tr>
<th>Building understanding of math concepts</th>
<th>Working towards proficiency with facts, skills, procedures</th>
<th>Creating engagement in the mathematical processes</th>
<th>Providing opportunities for reflecting on, monitoring and working towards goals</th>
<th>Fostering positive dispositions towards mathematics</th>
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<tbody>
<tr>
<td>What do I want my students to understand through this learning?</td>
<td>What proficiencies should my students be developing related to this learning?</td>
<td>How will I engage my students in doing the math?</td>
<td>What strategies will support students in monitoring their own learning?</td>
<td>What prior learning can I activate?</td>
</tr>
<tr>
<td>How can they show me that they understand?</td>
<td>How will I know my students are becoming proficient?</td>
<td>What mathematical models/tools can support this learning?</td>
<td>How will I have students make their own goals related to this learning?</td>
<td>What authentic connections can I make?</td>
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<td></td>
<td></td>
<td>What computational strategies are being developed?</td>
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<td>What will build math confidence?</td>
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<td>What mathematical language/conventions are important?</td>
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<td>How can I help students to appreciate mathematics with this learning?</td>
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<td>How will students learn about and monitor their thought processes related to this learning?</td>
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**Step 3. Instructional Strategies for co-learning**

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<th>Direct Instruction</th>
<th>Guided Investigation</th>
<th>Independent Practice</th>
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<td>What scenarios will engage students in the math?</td>
<td>Is there something about this concept that I must help students to name? e.g., properties</td>
<td>How can I help students to discover the curriculum?</td>
<td>What will be meaningful practice?</td>
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<tr>
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<td>Are there connections that I need to draw attention to?</td>
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**LEARNING GOALS**

- What should my students currently understand and do?
- What do my students need to learn?
- Where are the students headed with this learning?

**SUCCESS CRITERIA**

- What do I want my students to know and be able to do after this sequence of lessons?
- How will I know that my students have learned?
### Step 1.
**Know the learner.**
- Reflection: What should my students currently understand and do?
- What do my students need to learn?
- Where are the students headed with this learning?

### Step 2.
**Plan for Instruction and Assessment**

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- Direct Instruction
- Guided Investigation
- Independent Practice