

### K-6 Math Instructional Sequence

Stage	Mathematical Lesson Types		
	Conceptual During conceptual lessons, students develop their own understanding of important mathematical ideas and connect concepts to other mathematical knowledge.	Procedural During procedural lessons, students recall and practice procedures and formulas with repetition, utilizing facts and skills to solve routine problems.	Relational Knowledge During relational knowledge lessons, students collaborate to apply multiple types of mathematical knowledge and reasoning in flexible ways to non-routine, unstructured problems and with real world applications.
Opening/ Orientation*	<ul style="list-style-type: none"> <li>Teacher sets purpose, clarifies objective and/or standard, and connects to prior knowledge but does not give away the concept (discovery) or the academic language.</li> </ul>	<ul style="list-style-type: none"> <li>Teacher establishes objective and purpose, identifies standard(s), and reestablishes and/or connects to prior learning</li> </ul>	<ul style="list-style-type: none"> <li>Teacher establishes objective, connects to prior knowledge and standards, and clarifies directions, but does not tell students how to solve/approach problem.</li> </ul>
Presentation	<ul style="list-style-type: none"> <li>Teacher facilitates</li> <li>Teacher, students, and/or lesson provide input</li> <li>Teacher monitors and clarifies that students are building understanding</li> </ul>	<ul style="list-style-type: none"> <li>Teacher and/or students provide input</li> <li>Teacher monitors and clarifies that students are making connections</li> </ul>	
Structured/ Guided Practice	<ul style="list-style-type: none"> <li>Students are developing and explaining their new learning</li> <li>Teacher monitors, assesses, provides prompts, questions and cues for misconceptions and/or misunderstandings</li> </ul>	<ul style="list-style-type: none"> <li>Students practice new learning by gradually taking responsibility of application</li> <li>Teacher checks for understanding</li> </ul>	
Group Collaboration	<ul style="list-style-type: none"> <li>Students work together to develop and discuss new learning</li> <li>Teacher facilitates discussions</li> <li>Teacher selects and purposefully sequences student responses to share</li> </ul>	<ul style="list-style-type: none"> <li>Students work together to develop deeper understanding and discuss new learning</li> <li>Teacher monitors, assesses and provides feedback to individuals and/or groups</li> <li>Teacher meets with students for reteaching as needed</li> </ul>	<ul style="list-style-type: none"> <li>Students work in small groups, pairs, or independently, to apply new learning</li> <li>Teacher monitors, assesses and provides feedback to individuals and/or groups</li> <li>Students discuss findings</li> <li>Teacher selects and purposefully sequences student responses to share</li> </ul>
Independent Practice		<ul style="list-style-type: none"> <li>Students work independently and demonstrate mastery of new learning</li> <li>Teacher monitors, assesses, and intervenes with struggling students</li> </ul>	
Closure*	<ul style="list-style-type: none"> <li>Students summarize learning. May be written or oral</li> <li>Teacher or student restates objective and names new learning</li> </ul>	<ul style="list-style-type: none"> <li>Teacher or student restates objective</li> <li>Teacher assesses attainment of objective (Ticket Out the Door, One-Liner, etc...)</li> </ul>	<ul style="list-style-type: none"> <li>Students summarize learning. May be written or oral</li> <li>Teacher or students connect learning to objective(s)</li> </ul>

- Model based on effective research-validated models (DI, GRR, EEEI) by Madeline Hunter, Doug Fisher and Nancy Frey, et al.
- \*Each lesson/period begins with an Opening/Orientation and ends with Closure, even if all steps in the instructional framework are not covered in a single day/period.