

JOLIET PUBLIC SCHOOLS DISTRICT 86 MATHEMATICS FRAMEWORK OF INSTRUCTION



<p><u>Content Standards:</u> A lesson can be comprised of: part of a single standard, a single standard, or more than one standard at the same time.</p> <p><u>Levels of Rigor</u></p> <ul style="list-style-type: none"> • Conceptual Understanding • Procedural Skill and Fluency • Application 	<p><u>Mathematical Practice Standards:</u></p> <p>MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP3 Construct viable arguments and critique the reasoning of others. MP4 Model with mathematics. MP5 Use appropriate tools strategically. MP6 Attend to precision. MP7 Look for and make use of structure. MP8 Look for and express regularity in repeated reasoning.</p>
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<p><u>LAUNCH</u> (teacher facilitated)</p>	<p><u>Purpose:</u></p> <ul style="list-style-type: none"> • Introduce new concepts • Activate prior knowledge • Bridge to previous lesson segment • Stimulate new ideas • Address misconceptions from previous segment • Capture student attention 	<p><u>Considerations:</u></p> <ul style="list-style-type: none"> • Level of rigor • Math practice focus • Concrete, Representational, Abstract (CRA) • Common misconceptions • Real-world connections • Learning targets 	<p><u>Strategies:</u></p> <ul style="list-style-type: none"> • Stories • Video clips • Rich math tasks • Number talks • Standards-aligned games • Concrete activities 	<p><u>Assessment:</u></p> <ul style="list-style-type: none"> • Teacher observation • Brain dump • White board
<p><u>EXPLORE</u> (student centered)</p>	<p><u>Purpose:</u></p> <ul style="list-style-type: none"> • Collaborate • Active engagement • Discovery • Pattern building • Investigate strategies • Explore multiple pathways to problem solving • Record thinking • Organize work 	<p><u>Considerations:</u></p> <ul style="list-style-type: none"> • Grouping • Resources • Manipulatives • Representations • Guiding questions • Real-world connections • Learning targets 	<p><u>Strategies:</u></p> <ul style="list-style-type: none"> • Manipulatives • Math Journals • Rich math tasks • Graphic organizers • Math discourse • Gallery walks • Stations activities • Collaboration 	<p><u>Assessment:</u></p> <ul style="list-style-type: none"> • Observational checklist • Exit slip • Hand signals • Journal entries

<p style="text-align: center;"><u>SUMMARIZE</u> (teacher facilitated)</p>	<p><u>Purpose:</u></p> <ul style="list-style-type: none"> • Solidify understanding through classroom discourse and writing 	<p><u>Considerations:</u></p> <ul style="list-style-type: none"> • Journal prompts • Word wall • Talking points • Methods of communication <ul style="list-style-type: none"> ○ Anchor charts ○ Post-its ○ White boards ○ Hand signals • Real-world connections • Learning targets 	<p><u>Strategies:</u></p> <ul style="list-style-type: none"> • Compare and contrast ideas and strategies • Attend to precision using appropriate vocabulary • Make connections • Make generalizations • Reflective journaling • Critique • Justify reasoning • Math journals • White boards • Anchor charts • Post it's • Hand signals • Smart board • Turn and talk 	<p><u>Assessment:</u></p> <ul style="list-style-type: none"> • Concept map • Journal entries • Hand signals • Exit slips • Discourse
<p style="text-align: center;"><u>APPLY</u> (student centered)</p>	<p><u>Purpose:</u></p> <ul style="list-style-type: none"> • Practice new ideas • Make connections to other standards 	<p><u>Considerations:</u></p> <ul style="list-style-type: none"> • Assessments • Standards integration • Real-world connections • Learning targets 	<p><u>Strategies:</u></p> <ul style="list-style-type: none"> • Create own problems • Multi-standard tasks • Formative/summative assessments 	<p><u>Assessment:</u></p> <ul style="list-style-type: none"> • Summative test/quiz • Performance tasks • Projects

The lists of Considerations, Strategies, and Assessments represent ideas for instructional planning.

Visit joliet86.org to access the resources that support the District 86 Mathematics Curriculum.