

# Computational Fluency and Flexibility with Numbers – Math Grade 7

<i>What I want students to know, do and understand?</i>		
Concept(s)	Fluency, flexibility, system (order of operation; financial lit), literacy	
Big Idea	Curricular Competencies	Content
Computational fluency and flexibility with numbers extend to operations with integers and decimals.	<p><b>REASONING AND ANALYZING</b></p> <ul style="list-style-type: none"> <li>• Use logic and patterns to solve puzzles and play games</li> <li>• Use reasoning and logic to explore, analyze, and apply mathematical ideas</li> <li>• Estimate reasonably</li> <li>• Demonstrate and apply mental math strategies</li> </ul> <p><b>UNDERSTANDING AND SOLVING</b></p> <ul style="list-style-type: none"> <li>• Apply multiple strategies to solve problems</li> <li>• Develop, demonstrate and apply mathematical understanding through play, inquiry and problem solving</li> <li>• Visualize to explore mathematical concepts</li> </ul> <p><b>COMMUNICATING AND REPRESENTING</b></p> <ul style="list-style-type: none"> <li>• Use mathematical vocabulary and language to contribute to mathematical discussions</li> <li>• Communicate mathematical thinking in many ways</li> <li>• Represent mathematical ideas in concrete, pictorial and symbolic forms</li> </ul> <p><b>CONNECTING AND REFLECTING</b></p> <ul style="list-style-type: none"> <li>• Reflect on mathematical thinking</li> <li>• Connect mathematical concepts to each other and other areas of personal interest</li> <li>• Use mathematical arguments to support personal choices</li> <li>• Incorporate First Peoples worldviews and perspectives to make connections to mathematical concepts</li> </ul>	<ul style="list-style-type: none"> <li>• Multiplication and division facts to 100 (extending computational fluency)</li> <li>• Operations with integers (addition, subtraction, multiplication, division, order of operations)</li> <li>• Operations with decimals (addition, subtraction, multiplication, division, order of operations)</li> <li>• Financial literacy</li> </ul>
<i>How will I know my students have it?</i>		
Summative Assessment		
<b><i>Multiplication and division facts to 100 (extending computational fluency)</i></b>	<b><i>Operations with integers</i></b>	<b><i>Operations with decimals</i></b>
On-going, formative assessment; imbed into other units	Unit Test	see Financial Lit Budget Unit on Curriculum Hub (connections to Algebraic Expressions)