

# NUMERACY ASSESSMENT

## Grades 3-5

How might ongoing formative assessment of numeracy processes nurture and grow numeracy competencies, habits of the mind, and the Core Competencies?

"Assessment can be seen as an effective medium for communication between the teacher and the learner. It is a way for the student to communicate their learning to the teacher and for the teacher to communicate back to the student a commentary on their learning." ~ Peter Liljedahl

**Numeracy Assessment** can be a means of communicating with students about their competency in numeracy processes by encouraging students to be owners of their learning. Proficiency criteria may be used to clarify numeracy learning goals. The table below displays the possible proficiency criteria for the three numeracy processes practiced in grades 3-12.

Grades 3-5 Numeracy Processes Proficiency Criteria	
NUMERACY PROCESSES	PROFICIENCY CRITERIA
<b>Interpret</b>	<ul style="list-style-type: none"> <li>I can identify and organize important information in the problem that will help me solve the problem.</li> <li>I can use a picture, materials, words or symbols to represent the problem.</li> <li>I can identify important numbers in the problem that will help me decide if my answer is reasonable (limits, ranges, etc.)</li> </ul>
<b>Apply</b>	<ul style="list-style-type: none"> <li>I can identify a mathematical strategy(s) to use to help me find a solution to the problem</li> <li>I can make a plan with steps.</li> </ul>
<b>Solve</b>	<ul style="list-style-type: none"> <li>I can follow my plan to find a solution to a problem.</li> <li>I can check my solution.</li> <li>I can think about my solution and decide if it makes sense in the context.</li> </ul>
<b>Analyze</b>	<ul style="list-style-type: none"> <li>I can describe why I think my solution is reasonable.</li> <li>I can use important numbers in the problem to help me justify my solution.</li> </ul>
<b>Communicate</b>	<ul style="list-style-type: none"> <li>I can share the process I used to find a solution.</li> <li>I can share my solution visually, in words (orally or written), or in pictures with labels.</li> <li>I can explain why my solution works.</li> <li>I can explain how math was used to solve a problem in a real-life situation.</li> </ul>

The proficiency criteria can be used as a self-assessment tool that students may use to reflect on their learning. Students might engage in dialogue with peers or teachers around the criteria and they may set learning goals for themselves.

### Mathematical Habits of Mind and the Core Competencies

Students may also be invited to reflect on growth in identified Habits of Mind:

- persevering and using mathematics to solve problems in everyday life
- recognizing that there are multiple ways to solve a problem
- demonstrating respect for diversity in approaches to solving problems
- choosing and using appropriate strategies and tools
- pursuing accuracy in problem solving



How might connections to the Core Competencies be highlighted when students are engaged in numeracy experiences?