

# Components of Numeracy Rubric

For lesson, unit, or assessment planning

Date \_\_\_\_\_

<b>Title</b>	
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<b>Objective(s)</b>	Learner will be able to
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A. What is the <b>context</b> , or use and purpose, of the numeracy topic(s)?	B. What is the <b>content</b> area? <i>List specifics in each area.</i>	C. What skills and/or concepts do students need <b>before</b> this lesson?
<input type="checkbox"/> Family /personal <input type="checkbox"/> Workplace <input type="checkbox"/> Further learning <input type="checkbox"/> Community <input type="checkbox"/> Other: _____ _____	<input type="checkbox"/> Number/Operation Sense: _____ <input type="checkbox"/> Patterns, Functions, Algebra: _____ <input type="checkbox"/> Measurement and Shape: _____ <input type="checkbox"/> Data, Statistics, Probability: _____	_____ _____ _____ _____

D. Which level(s) of knowing math are addressed in each activity?	
1. <b>Intuitive:</b> Linking to what students already know 2. <b>Concrete:</b> Moving manipulatives 3. <b>Pictorial:</b> Drawing pictures 4. <b>Abstract:</b> Using symbols, ex. $\frac{1}{4} + \frac{1}{4} \neq \frac{2}{8}$ 5. <b>Application:</b> Applying to different situations, ex. word problems 6. <b>Communication:</b> Explaining solutions	
Activity	Level(s) of Knowing Math

E. How effectively are **cognitive and affective** processes used to link content and context?

Which processes are explicitly taught?	Reflection upon completion: How well did learners apply each of the processes?		
	No	Somewhat	Yes
<input type="checkbox"/> <b>Conceptual Understanding:</b> Ability to understand math concept and apply it to new situations.	Is confused by the new concept.	Completes class exercises involving the concept.	Applies concept in situations different from examples given in class.
<input type="checkbox"/> <b>Adaptive Reasoning:</b> Ability to use logical patterns to make predictions and connections.	Quickly chooses operations before understanding the problem.	Chooses correct problem-solving method, but cannot explain logic.	Uses logic and patterns to reach a solution.
<input type="checkbox"/> <b>Strategic Competence:</b> Ability to: draw a picture, make a table, guess and check, simplify the numbers, find a pattern, work backwards, act it out, or use a formula.	Is unsure how to begin.	Chooses strategy similar to examples done in class.	Chooses and executes effective strategy and reaches solution.
<input type="checkbox"/> <b>Procedural Fluency:</b> Ability to perform estimated or exact calculations in order to answer a question.	Is not able to complete the calculations.	Struggles to complete the task. Mixes steps or processes from other procedures.	Calculates or estimates solutions quickly, easily, and appropriately.
<input type="checkbox"/> <b>Productive Disposition:</b> Positive attitude toward learning math, including perseverance, curiosity, and reflection.	Does not complete assignments. May complain or blame others for difficulties.	Completes assignments, but focuses on each answer rather than on learning the process.	Asks specific and thoughtful questions. Perseveres when frustrated, and takes ownership of work and learning.