GRADUATION NUMERACY ASSESSMENT

Richmond Secondary School

January 26 2018

What is numeracy?

- Numeracy is the ability, willingness, and perseverance to interpret and apply mathematical understanding to solve problems in contextualized situations, and to analyze and communicate these solutions in ways relevant to the given context.

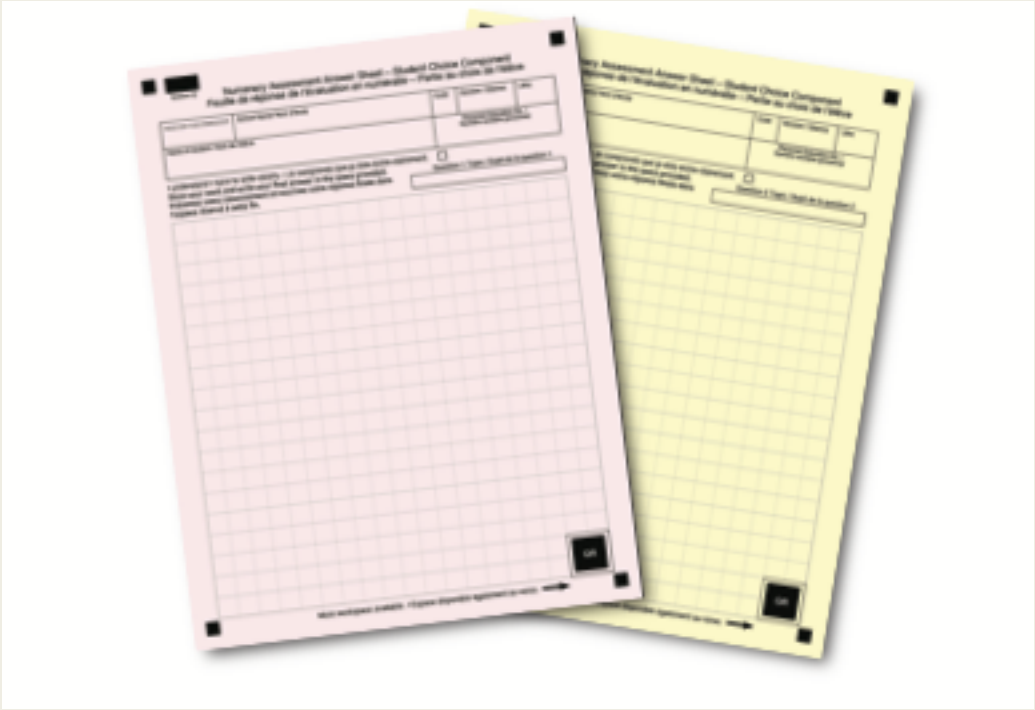
Quick Facts

- The GNA is a Graduation requirement for students in the 2018 Graduation Program
- The GNA is not linked to a specific grade level or course but focuses on concepts from K-9/10
- Can be taken up to three times
- Marked on a four-point proficiency scale
- Proficiency mark will be recorded on transcript
- Post-secondary institutions are still determining how they might use the GNA for admissions

GNA format

1) 24 online questions of varying DOK
(4 contexts, 6 questions for each)

2) 2 long-response questions



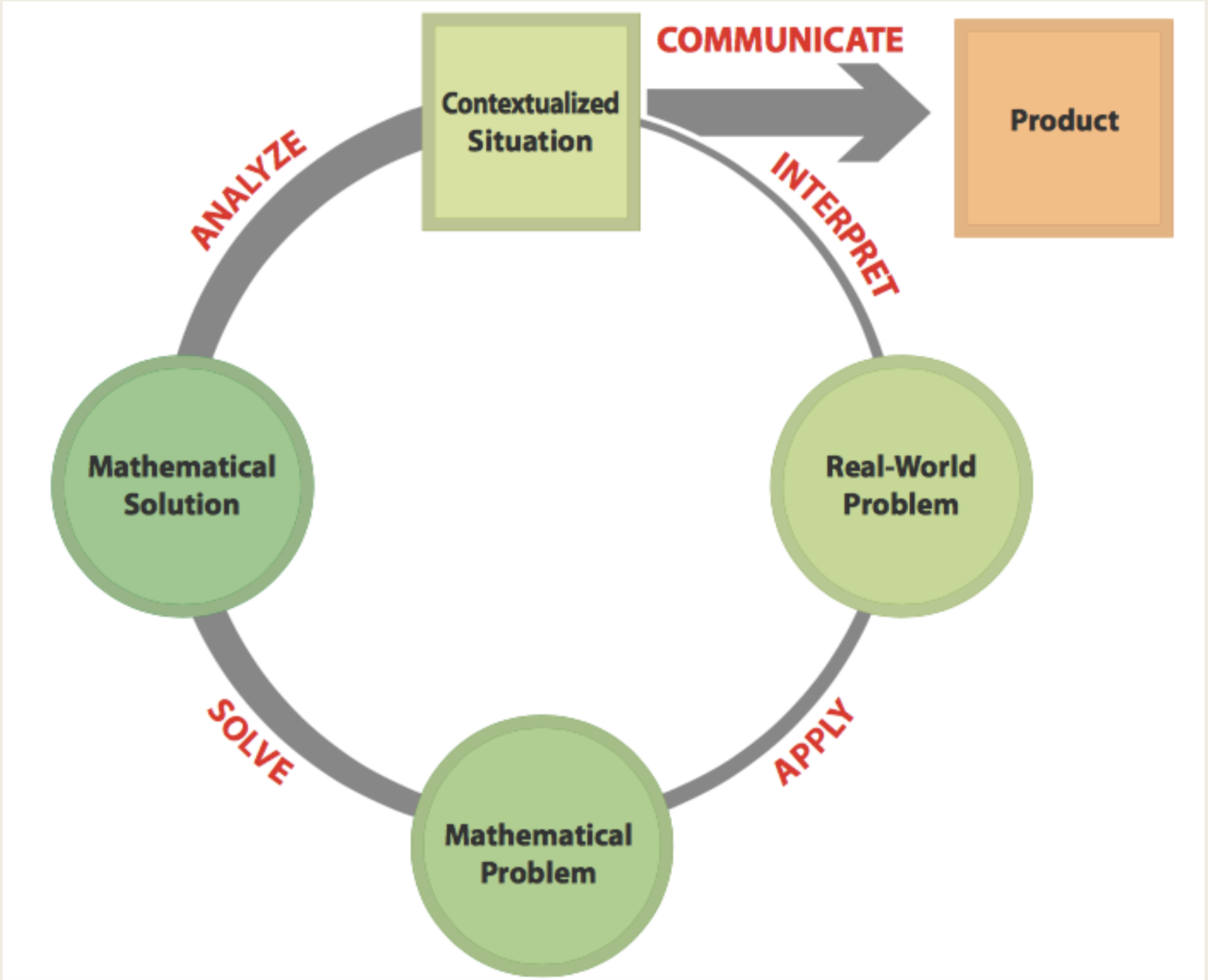
3) Self-reflection questions

Depth of Knowledge (DOK)

Level 1 – RECALL	Level 2 – SKILLS AND CONCEPTS	Level 3 – STRATEGIC THINKING
The student is able to recall or locate information such as a fact, definition, or term; use a procedure; or apply a formula.	The student is able to demonstrate conceptual understanding through models and explanations, and to make decisions on how to approach a problem or activity.	The student is able to solve a problem and explain his or her thinking through reasoning, planning, and using evidence.

The Five Numeracy Processes

- Interpret
- Apply
- Solve
- Analyze
- Communicate


Contextualized Situation
COMMUNICATE
Product
ANALYZE
INTERPRET
Mathematical Solution
Real-World Problem
SOLVE
APPLY
Mathematical Problem

Types of Numeracy Tasks

- Reasoned Estimates
- Plan and Design
- Fair Share
- Model

Contexts

- Personal
- Career
- Societal
- Scientific

Numeracy Assessment Rubric

	1	2	3	4
Snapshot	*The student demonstrates an inadequate understanding of the situation. The strategy is ineffective. The solution may contain fundamental mathematical errors. The reasoning is missing or irrelevant; the logic does not reference the problem.*	*The student demonstrates a basic understanding of the situation. The strategy is unclear and/or incomplete. The solution may contain mathematical errors. The reasoning is unclear; but the logic correctly references some aspects of the problem.*	*The student demonstrates an adequate understanding of the situation. The strategy is sensible but has some inconsistencies. The solution may contain minor mathematical errors. The reasoning is evident, and the logic references most aspects of the problem.*	*The student demonstrates a proficient understanding of the situation. The strategy is effective and comprehensive. The solution may contain minor mathematical errors that do not affect the demonstration of proficiency. The reasoning is clear and the logic references all aspects of the problem.*
	NR — *No response (answer page is blank).*	0 — *Information simply recopied from the problem. Diagrams or calculations are unrelated to the problem. Response does not address the purpose of the task. An incorrect mathematical solution with no work shown. Inappropriate response (contains profanity, inappropriate diagram or language). All work is erased or crossed out. Any zero score must include rationale and be approved by the section head.*		

DRAFT

Reporting

Proficiency Scale	Emerging	Developing	Proficient	Extending
	The student demonstrates an initial understanding of the concepts and competencies relevant to the expected learning.	The student demonstrates a partial understanding of the concepts and competencies relevant to the expected learning.	The student demonstrates a complete understanding of the concepts and competencies relevant to the expected learning	The student demonstrates a sophisticated understanding of the concepts and competencies relevant to the expected learning.

- *Where do you see opportunities for including numeracy tasks in your course assignments or tests?*
- *What concepts or processes do you think your students need support with to be able to demonstrate that they are numerate?*