Note: This document reflects the changes made in 2016.

Student Learning Assessment

SLA
Student Learning Assessment

Numeracy

Performance Task
Exemplars of Student Responses

Zoo

2015

Provincial Assessment Sector

Alberta Education

Contents

Introduction

Teachers are required to assess student responses using the Performance Task Descriptors and the Exemplars of Student Responses, which are both found on the *Teacher Dashboard*. The Numeracy Performance Task will be assessed and reported only at the local level. Classroom teachers are expected to assess their students' performance tasks and are encouraged to use the results to inform local decision making. The students' performance tasks are kept at the school for reference during teacher, student, and parent conversations.

The assessment of student responses must be based solely on the Performance Task Descriptors and the Exemplars of Student Responses. Fairness and accuracy for all students are the most important requirements of the assessment process.

Performance Task Descriptors
The Performance Task Descriptors are a set of statements that are used to describe the students' responses to Activities 1 and 2 in the Numeracy Performance Task. Each activity should be scored as a single response according to the Performance Task Descriptors and the Exemplars of Student Responses. Specific student strengths and areas for improvement can be noted on the Performance Task Descriptors.
- The teacher will identify the descriptors which best describe each student's responses. This information will be recorded using the Performance Task Descriptors.
- All evidence of student work can be seen as a complete unit to understand student strengths and areas for improvement.
- The Performance Task Descriptors are based on the Mathematics Program of Studies.

Exemplars of Student Responses
The Exemplars of Student Responses are based on students' responses to the performance task. The content of the performance task promotes the demonstration of reasoning, problem solving, and communication. These responses provide a range of examples that illustrate the statements in the Performance Task Descriptors.

A rationale that explains the connection between each example of student work and the Performance Task Descriptors is also provided.
The Exemplars of Student Responses must be used in conjunction with the Performance Task Descriptors to assess a student's response to the performance task.

How are the Performance Task Descriptors and the Exemplars of Student Responses Created?
Several different working groups of educational consultants and grades 2, 3, and 4 teachers developed and validated the Performance Task Descriptors. They also selected and validated the Exemplars of Student Responses.

Exemplar Selection Working Group
The Exemplars of Student Responses are based on selections of student work, taken from field tests, which best illustrate the Performance Task Descriptors. Working-group members read a large sample of students' written responses to the performance task and selected responses that best match the standards demonstrated by students at the beginning of Grade 3. The working group then wrote rationales that explain the relationship between each exemplar and the Performance Task Descriptors.

Exemplar Validation Working Group
Members of the Exemplar Validation Working Group reviewed and approved the selected exemplars of student responses and the rationales that were prepared. This group ensured that the rationales accurately reflected the performance task descriptors and verified that appropriate and accurate references were made to student work. Working-group members also strove to ensure that there was clarity within the rationales so that teachers will be able to accurately and reliably assess their students' responses.

Revisions in 2016 Include
- Training Papers of student exemplars and the associated rationale were moved to the beginning of this document to provide clarity in using the Performance Task Descriptors.
- Rationales were provided for Activity 1 and Activity 2 to provide more clarity.
- Appendix: Clarification of Terms Used in the Numeracy Performance Task Descriptors was added.

Performance Task at a Glance

The Performance Task is composed of two activities and a final check, which are designed to be completed in 45 to 60 minutes. Breaks may be taken at any time during the administration of the Performance Task.

1. **Presentation of Information**
   The purpose of the presentation is to focus students' thinking and prepare them for the task through the presentation of information and class discussions.

2. **Activity 1: Problem Solving**
   Students use the given scenario and problem. Students work independently to solve the problem and explain their thinking.

3. **Activity 2: Problem Solving**
   Students use the given scenario and problem. Students work independently to solve the problem and explain their thinking.

4. **Final Check**
   Students are encouraged to review their tasks to ensure clarity and completeness of the response.

Suggestions for Assessing Students' Responses

Before beginning to assess their students' responses to the Numeracy Performance Task, teachers can use the Training Papers in this document to become more familiar with the application of the Performance Task Descriptors and Exemplars of Student Responses. Each of the Training Papers includes a rationale and is a valuable support for marker training. The four Training Papers are themselves exemplars of students' responses and can later be used with the other exemplars in this document to support teachers in the assessment of their students' responses.

How to Use the Training Papers
1. Read the student responses.
2. Using the Performance Task Descriptors, determine whether the responses (Activity 1 and Activity 2) exceed the Adequate level (Proficient or Excellent), are at the Adequate level (Adequate), or are below the Adequate level (Limited or Insufficient Evidence).
3. Determine which exemplar(s) of student responses are most similar to the response you are assessing.
   • This ensures that your assessment of the response is aligned with the provincial standard.
4. Refine your assessment of the response by determining which performance task descriptors in the categories of Problem Solving and Reasoning and Communication provide the most accurate description of the response.
   • This requires thoughtful analysis of the response using both the Performance Task Descriptors and the Exemplars of Student Responses.
   • On a copy of the Performance Task Descriptors, you may choose to highlight the descriptors that best describe the student's response. This creates a visual "profile" of the student's strengths and identifies areas for improvement. An example of a "profile" is shown on the next page.

Example of a Profile

SLA Grade 3 Numeracy Performance Task Descriptors

Activity 1
Activity 2

Problem Solving and Reasoning	Excellent	Proficient	Adequate	Limited	Insufficient Evidence
When assessing **Problem Solving and Reasoning**, consider how effectively the student					
• identifies the relevant information to demonstrate an understanding of the problem [CN, R, V]	☐ Representations use **only** relevant information and demonstrate a **complete** understanding of the problem.	■ Representations use **most** of the relevant information and demonstrate a **clear** understanding of the problem.	■ Representations use **some** of the relevant information and demonstrate a **general** understanding of the problem.	☐ Representations use **little** of the relevant information and demonstrate a **partial** understanding of the problem.	☐ There is **little or no evidence** that the problem is understood.
• implements a strategy [CN, PS, R]	☐ **Insightful** strategy is chosen and implemented.	■ **Purposeful** strategy is chosen and implemented.	☐ **Appropriate** strategy is chosen and implemented.	☐ **Inappropriate** strategy is chosen and/or strategy is **inaccurately** implemented.	☐ There is **little or no evidence** of a strategy being used.
• applies learned mathematical concepts to reach a solution [C, CN, ME, PS, R, V]	■ Concepts are **consistently** applied accurately and lead to a **correct** solution.	☐ Concepts are **frequently** applied accurately and lead to an **essentially correct** solution.	■ Concepts are **generally** applied accurately and lead to a **straightforward** solution; minor errors or oversights may be evident.	☐ Concepts are **rarely** applied accurately leading to a solution that is **incorrect**.	☐ There is **little or no evidence** of mathematical concepts being applied.

Communication	Excellent	Proficient	Adequate	Limited	Insufficient Evidence
When assessing **Communication**, consider the extent to which the student					
• uses pictures, words, numbers, and/or symbols to clearly articulate understanding [C]	☐ Pictures, words, numbers, and/or symbols are **skillfully** chosen to **enhance** the clarity of the response.	■ Pictures, words, numbers, and/or symbols are **thoughtfully** chosen to **strengthen** the clarity of the response.	■ Pictures, words, numbers, and/or symbols are **appropriately** chosen to **support** the clarity of the response; some inferences may be required.	☐ Pictures, words, numbers, and/or symbols are **haphazardly** chosen and may **interfere** with the clarity of the response; inferences are required.	☐ Pictures, words, numbers, and/or symbols **significantly interfere** with the clarity of the response; the response **lacks** clarity.

Note: The numeracy task assessment categories used to assess a student's response directly relate to the mathematical processes (C, CN, ME, PS, R, T, V) found in the front matter of the Mathematics Kindergarten to Grade 9 Program of Studies.

When assessing a student's response, refer to the Grade 2 Mathematics Program of Studies.

Specific outcomes are found in the Administration Guidelines for Teachers.

Alberta Education

SLA Grade 3 Numeracy Exemplar – Training Paper 1

Activity 1	Activity 2

Activity 1

Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo?

Ticket Prices

Adult $5   Child $2

Use pictures, words, and/or numbers to show how you solve the question.

Adult - $5

1 2 3 4 5

Child - $2

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Activity 2

Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo?

Use pictures, words, and/or numbers to show how you solve the question.

Rationale – Training Paper 1

Problem Solving and Reasoning	Descriptor	Comments
• identifies the **relevant** information to demonstrate an **understanding** of the **problem** [CN, R, V]	**Adequate** Representations use **some** of the relevant information and demonstrate a **general** understanding of the problem.	Activity 1 – Representations demonstrate a general understanding of the problem (the relationship of the cost of tickets for adults and children; 6 adult tickets at $5 = $30, 15 children tickets at $2 = $30). The relationship of the cost of tickets for adults and children is inferred with the numbers. Connections are evident.
	Adequate Representations use **some** of the relevant information and demonstrate a **general** understanding of the problem.	Activity 2 – Representations demonstrate a general understanding of the problem (the relationship of the cost of tickets for adults and children; 4 groups of 1 adult and 5 children including the one given with Mr. Smith). The relationship of the cost of tickets for adults and children is inferred with the groups. Inferences are required to understand that there are 4 groups, of which 3 are drawn.
• implements a strategy [CN, PS, R]	**Proficient** **Purposeful** strategy is chosen and implemented.	Activity 1 – Purposeful strategies are chosen and implemented (counting on with numbers).
	Proficient **Purposeful** strategy is chosen and implemented.	Activity 2 – Purposeful strategies are chosen and implemented (counting groups of 15 using pictures of 1 adult (5) and 5 children (10)).
• applies learned mathematical concepts to reach a solution [C, CN, ME, PS, R, V]	**Adequate** Concepts are **generally** applied accurately and lead to a **straightforward** solution; minor errors or oversights may be evident.	Activity 1 – Pictures and numbers demonstrate a straightforward correct solution in both activities. It is unclear how the answer was determined.
	Adequate Concepts are **generally** applied accurately and lead to a **straightforward** solution; minor errors or oversights may be evident.	Activity 2 – Pictures and numbers demonstrate a straightforward correct solution in both activities. It is unclear how the answer was determined.
Communication	**Descriptor**	**Comments**
• uses pictures, words, numbers, and/or symbols to clearly articulate understanding [C]	**Adequate** Pictures, words, numbers, and/or symbols are **appropriately** chosen to **support** the clarity of the response; some inferences may be required.	Activity 1 – Pictures and numbers demonstrate a straightforward correct solution in both activities. It is unclear how the answer was determined.
	Adequate Pictures, words, numbers, and/or symbols are **appropriately** chosen to **support** the clarity of the response; some inferences may be required.	Activity 2 – Pictures and numbers demonstrate a straightforward correct solution in both activities. It is unclear how the answer was determined.

Note: The numeracy task assessment categories used to assess a student's response directly relate to the mathematical processes (C, CN, ME, PS, R, T, V) found in the front matter of the Mathematics Kindergarten to Grade 9 Program of Studies.

When assessing a student's response, refer to the Grade 2 Mathematics Program of Studies.

Specific outcomes are found in the Administration Guidelines for Teachers.

SLA Grade 3 Numeracy Exemplar – Training Paper 2

Activity 1	Activity 2

Activity 1

Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo?

Ticket Prices

Adult $5   Child $2

Use pictures, words, and/or numbers to show how you solve the question.

Adult - $5

5 5 5 5 5 5 5 5
1 1 1 1 1 1 1 1
5 10 15 20 25 30 35 40

Child - $2

2 2 2 2 2 2 2 2 2 2
2 4 6 8 10 12 14 16 18 20

Fourty $8 adults

twenty $10 children

Activity 2

Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo?

Use pictures, words, and/or numbers to show how you solve the question.

15

15
2 4 6 8 10 15

15
2 4 6 8 10 15

15
2 4 6 8 10 15

Only four groups can go with four adults and twenty children

2015 Exemplars—Zoo
Revised 2016

Rationale – Training Paper 2

Problem Solving and Reasoning	Descriptor	Comments
• identifies the **relevant** information to demonstrate an **understanding** of the **problem** [CN, R, V]	**Excellent** Representations use only relevant information and demonstrate a **complete** understanding of the problem.	Activity 1 – Relevant information is used and organized to demonstrate a complete understanding of the problem using symbols, numbers, and word responses. A complete understanding of the problem is demonstrated (relationship between cost of tickets for adults and children). A strong connection is made (relationship between cost and difference in price for adults is shown by box sizes).
	Excellent Representations use only relevant information and demonstrate a **complete** understanding of the problem.	Activity 2 – Relevant information is used and organized to demonstrate a complete understanding of the problem using symbols, numbers, and word responses. A complete understanding of the problem is demonstrated (relationship between cost of tickets and number of people in groups). A strong connection is made (5 cells for adults and 2 cells for children, followed by words to answer the question).
• implements a strategy [CN, PS, R]	**Proficient** **Purposeful** strategy is chosen and implemented.	Activity 1 – The organization of symbols, words, and numbers demonstrates purposeful strategies (starts by skip counting by 5s and applies the same strategy with the 2s).
	Proficient **Purposeful** strategy is chosen and implemented.	Activity 2 – The organization of symbols, words, and numbers demonstrates purposeful strategies (counting 4 groups of 15).
• applies learned mathematical concepts to reach a solution [C, CN, ME, PS, R, V]	**Excellent** Concepts are **consistently** applied accurately and lead to a correct solution.	Activity 1 – Math concepts are applied logically to arrive at an accurate and correct solution (groups of like sums and uses skip counting by 5s and 2s).
	Excellent Concepts are **consistently** applied accurately and lead to a correct solution.	Activity 2 – Math concepts are applied logically to arrive at an accurate and correct solution (groups of like sums and shows groups of 15 (group of 5 and 5 groups of 2)).
Communication	**Descriptor**	**Comments**
• uses pictures, words, numbers, and/or symbols to clearly articulate understanding [C]	**Proficient** Pictures, words, numbers, and/or symbols are **thoughtfully** chosen to **strengthen** the clarity of the response.	Activity 1 – Thinking is made visible through thoughtfully chosen pictures, numbers, and words ("fourty $ 8 adults, twenty $ 10 children") to justify the correct answer.
	Proficient Pictures, words, numbers, and/or symbols are **thoughtfully** chosen to **strengthen** the clarity of the response.	Activity 2 – Thinking is made visible through thoughtfully chosen pictures, math sentences, and words to justify the correct answer ("Only four groups can go with four adults and twenty children").

Note: The numeracy task assessment categories used to assess a student's response directly relate to the mathematical processes (C, CN, ME, PS, R, T, V) found in the front matter of the Mathematics Kindergarten to Grade 9 Program of Studies.

When assessing a student's response, refer to the Grade 2 Mathematics Program of Studies.

Specific outcomes are found in the Administration Guidelines for Teachers.

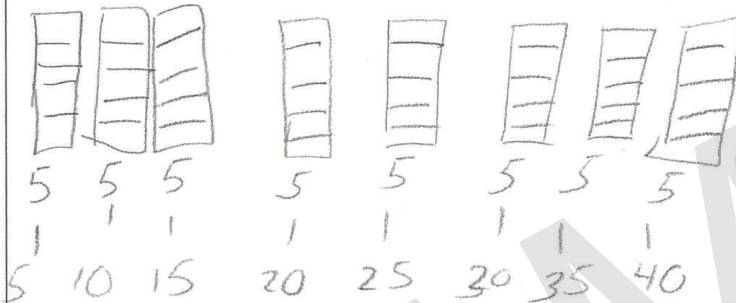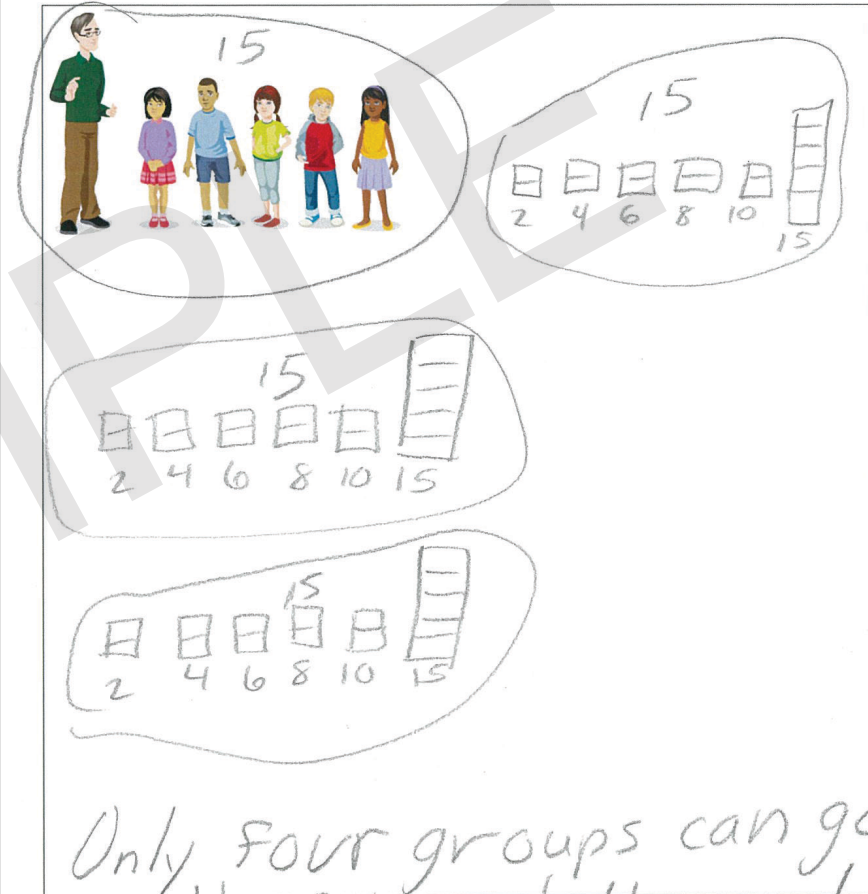# SLA Grade 3 Numeracy Exemplar – Training Paper 3

Activity 1	Activity 2
Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo?	Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo?

Activity 1

Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo?

Ticket Prices
Adult $5   Child $2

Use pictures, words, and/or numbers to show how you solve the question.
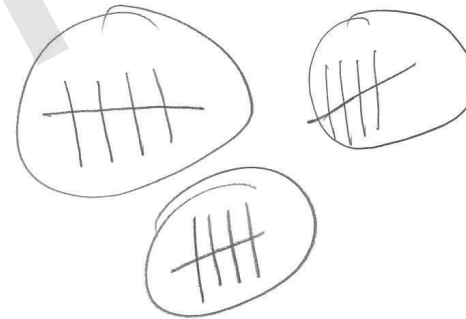
Adult - $5

5

Child - $2

5

Activity 2

Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo?

Use pictures, words, and/or numbers to show how you solve the question.

15

Rationale – Training Paper 3

Problem Solving and Reasoning	Descriptor	Comments
• identifies the **relevant** information to demonstrate an **understanding** of the **problem** [CN, R, V]	**Limited** Representations use **little** of the relevant information and demonstrate a **partial** understanding of the problem.	Activity 1 – Little of the relevant information is used (the number 5 for adult tickets and 5 for child tickets; the sum of the tickets would be $35). The difference between adult and child ticket costs needs to be inferred. Understanding of the problem is not evident.
	Limited Representations use **little** of the relevant information and demonstrate a **partial** understanding of the problem.	Activity 2 – Little of the relevant information is used (an inference could also be made that the number 15 could represent the price for 3 adults). The difference between adult and child ticket costs needs to be inferred. Understanding of the problem is not evident for either activity.
• implements a strategy [CN, PS, R]	**Limited** **Inappropriate** strategy is chosen and/or strategy is **inaccurately** implemented.	Activity 1 – The evidence of a strategy being used to solve the problem is unclear (just used the number 5 in each of the adult and children sections).
	Limited **Inappropriate** strategy is chosen and/or strategy is **inaccurately** implemented.	Activity 2 – The evidence of a strategy being used to solve the problem is unclear (use of number 15, tallies, and sorting tallies into 3 groups of 5).
• applies learned mathematical concepts to reach a solution [C, CN, ME, PS, R, V]	**Insufficient Evidence** There is **little or no evidence** of mathematical concepts being applied.	Activity 1 – There is little evidence of mathematical concepts being applied. The numbers lead to incorrect solutions (5 adults - $25 and 5 children - $10 for a total of $35).
	Insufficient Evidence There is **little or no evidence** of mathematical concepts being applied.	Activity 2 – There is little evidence of mathematical concepts being applied. The number and tallies lead to incorrect solutions (no indication that the 15 and 3 groups of tallies represents adults, children or groups).
Communication	**Descriptor**	**Comments**
• uses pictures, words, numbers, and/or symbols to clearly articulate understanding [C]	**Limited** Pictures, words, numbers, and/or symbols are **haphazardly** chosen and may **interfere** with the clarity of the response; inferences are required.	Activity 1 – The use of the number 5 is confusing, ineffective and interferes with the clarity of the response. Inferences are required.
	Limited Pictures, words, numbers, and/or symbols are **haphazardly** chosen and may **interfere** with the clarity of the response; inferences are required.	Activity 2 – The use of the number 15 and tallies are confusing, ineffective and interfere with the clarity of the response. Inferences are required.

Note: The numeracy task assessment categories used to assess a student's response directly relate to the mathematical processes (C, CN, ME, PS, R, T, V) found in the front matter of the Mathematics Kindergarten to Grade 9 Program of Studies.

When assessing a student's response, refer to the Grade 2 Mathematics Program of Studies.

Specific outcomes are found in the Administration Guidelines for Teachers.

SLA Grade 3 Numeracy Exemplar – Training Paper 4

Activity 1	Activity 2
Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo?	Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo?

Activity 1

Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo?

Ticket Prices
Adult $5   Child $2

Use pictures, words, and/or numbers to show how you solve the question.

Adult – $5

5   10   15   20   25   30

Child – $2

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30

Activity 2

Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo?

Use pictures, words, and/or numbers to show how you solve the question.

5 2 2 2 2 2 = 15 $30

0 0 0 0 0 = 15

                                        $60

0 0 0 0 0 = 15 $30

0 0 0 0 0 = 15

Rationale – Training Paper 4

Problem Solving and Reasoning	Descriptor	Comments
• identifies the **relevant** information to demonstrate an **understanding** of the **problem** [CN, R, V]	**Proficient** Representations use **most** of the relevant information and demonstrate a **clear** understanding of the problem.	Activity 1 – Relevant information is used (stick drawings of adults, circles for children represent the difference of cost for tickets). An understanding of the problem is clearly demonstrated (relationship between cost of tickets for adults and children is demonstrated). Connections are clearly demonstrated (adults are $5 and children are $2).
	Proficient Representations use **most** of the relevant information and demonstrate a **clear** understanding of the problem.	Activity 2 – Relevant information is used (stick drawings of adults, circles for children represent the difference of cost for tickets). An understanding of the problem is clearly demonstrated. Relationship between cost of tickets for adults and children is clear. Connections are clearly demonstrated (adults are $5 and children are $2).
• implements a strategy [CN, PS, R]	**Proficient** **Purposeful** strategy is chosen and implemented.	Activity 1 – Purposeful strategies are chosen and implemented (skip counts by 5s and 2s).
	Proficient **Purposeful** strategy is chosen and implemented.	Activity 2 – Purposeful strategies are chosen and implemented (counts first group 5 2 2 2 2 = 15, adds 2 groups of 15 to equal $30, then adds 2 groups of $30 to get the sum of $60).
• applies learned mathematical concepts to reach a solution [C, CN, ME, PS, R, V]	**Proficient** **Concepts** are frequently applied accurately and lead to an essentially correct solution.	Activity 1 – Math concepts are frequently applied accurately with the only oversight being too many circles to represent children, but a correct solution is demonstrated (30+30=60).
	Proficient **Concepts** are frequently applied accurately and lead to an essentially correct solution.	Activity 2 – Math concepts are frequently applied accurately and a correct solution is demonstrated (30+30=60).
Communication	**Descriptor**	**Comments**
• uses pictures, words, numbers, and/or symbols to clearly articulate understanding [C]	**Adequate** Pictures, words, numbers, and/or symbols are **appropriately** chosen to **support** the clarity of the response; some inferences may be required.	Activity 1 – Organization of pictures and numbers demonstrates the thought process and clarifies the response. Activity shows correct skip counting by 5s to 30, drawings of 6 stick people requires inference that 6 adults go to the zoo. The circles and skip counting by 2s does not match as there are 18 circles which would represent $36.
	Proficient Pictures, words, numbers, and/or symbols are **thoughtfully** chosen to **strengthen** the clarity of the response.	Activity 2 – Organization of pictures and numbers demonstrates the thought process and clarifies the response. Activity clearly shows the number of children and the cost of $2; each adult is $5 to a sum of 60 (counting groups of 15).

Note: The numeracy task assessment categories used to assess a student's response directly relate to the mathematical processes (C, CN, ME, PS, R, T, V) found in the front matter of the Mathematics Kindergarten to Grade 9 Program of Studies.

When assessing a student's response, refer to the Grade 2 Mathematics Program of Studies.

Specific outcomes are found in the Administration Guidelines for Teachers.

SLA Grade 3 Numeracy Exemplar – A

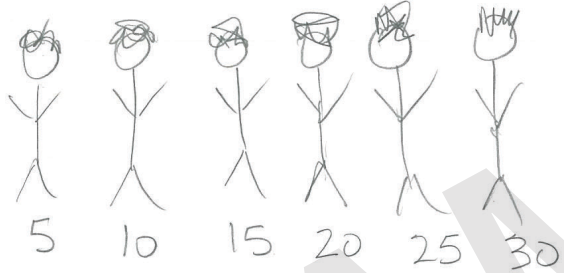| Activity 1	Activity 2
Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo?	**Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo?**

Activity 1 student work:

Adult - $5
My Mom
45 50 55 60
10 + 10 = [20]

Child - $2
Susie
2 4 6 8 10 12 14 16 18 20
22 24 26 28 30 32 34 36 38 [40]

I started counting by 2's. It is easy for me. 40+20=60. Inkluding Mr. Smith he can take 4 adults and 20 children.

Activity 2 student work:

(15)
8 5 6 7 8 9 10 11 12 13 14 15

(15)
20 32 22 24 26 28 30

(15)
35 $37 39 41 43 45

(15)
50 $52 54 56 58 60

This adult has no kids to take to the Zoo!

I made groups with one adult and 5 children until we spend $60.

There are 4 groups going to the Zoo.

I cheked this becuz 15+15=30 and 30+30=60
15+15=30

Rationale – Exemplar A

Problem Solving and Reasoning	Descriptor	Comments
• identifies the **relevant** information to demonstrate an **understanding** of the **problem** [CN, R, V]	**Excellent** Representations use **only** relevant information and demonstrate a **complete** understanding of the problem.	Activity 1 – Relevant information is used and organized to demonstrate a complete understanding of the problem (pictures of faces, numbers, math sentences and word responses). A complete understanding of the problem is demonstrated (relationship between cost of tickets for adults and children). A strong connection is made (counting by 2s for the children to 40, then by 5s for the adults to 60).
	Excellent Representations use **only** relevant information and demonstrate a **complete** understanding of the problem.	Activity 2 – Relevant information is used and organized to demonstrate a complete understanding of the problem (pictures of faces, numbers, math sentences and word responses). A complete understanding of the problem is demonstrated (relationship between cost of tickets for adults and children). A strong connection is made (counting each group (15) followed by words to answer the questions).
• implements a strategy [CN, PS, R]	**Excellent** **Insightful** strategy is chosen and implemented..	Activity 1 – The organization of faces, words and numbers exemplify insightful strategies (starts by skip counting by 2s and applies the same strategy with the 5s).
	Excellent **Insightful** strategy is chosen and implemented..	Activity 2 – The organization of faces, words and numbers exemplify insightful strategies. (Counting 4 groups of 15 (15 + 15 = 30 15 + 15 = 30 and 30 + 30 = 60)).
• applies learned mathematical concepts to reach a solution [C, CN, ME, PS, R, V]	**Excellent** Concepts are **consistently** applied accurately and lead to a **correct** solution.	Activity 1 – Math concepts are applied logically to arrive at an accurate and correct solution (groups of like sums; uses skip counting by 5s and 2s).
	Excellent Concepts are **consistently** applied accurately and lead to a **correct** solution.	Activity 2 – Math concepts are applied logically to arrive at an accurate and correct solution (groups of like sums; shows groups of 15, 1 ($5) and 5 ($2's)).
Communication	**Descriptor**	**Comments**
• uses pictures, words, numbers, and/or symbols to clearly articulate understanding [C]	**Excellent** Pictures, words, numbers, and/or symbols are **skillfully** chosen to **enhance** the clarity of the response.	Activity 1 – Thinking is made visible through the skillfully chosen use of pictures, math sentences, and words to justify the correct answer ("Including Mr. Smith he can take 4 adults and 20 children").
	Excellent Pictures, words, numbers, and/or symbols are **skillfully** chosen to **enhance** the clarity of the response.	Activity 2 – Thinking is made visible through the skillfully chosen use of pictures, math sentences, and words to justify the correct answer ("I made groups with one adult and 5 children until we spend $60").

Note: The numeracy task assessment categories used to assess a student's response directly relate to the mathematical processes (C, CN, ME, PS, R, T, V) found in the front matter of the Mathematics Kindergarten to Grade 9 Program of Studies.

When assessing a student's response, refer to the Grade 2 Mathematics Program of Studies.

Specific outcomes are found in the Administration Guidelines for Teachers.

SLA Grade 3 Numeracy Exemplar – B

Activity 1	Activity 2

Activity 1

Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo?

Ticket Prices

Adult $5   Child $2

Use pictures, words, and/or numbers to show how you solve the question.

Adult - $5

5 10 15 20

20
+ 40
60

Child - $2

2 4 6 8 10 12 14 16 18 20 22
24 26 28 30 32 34 36 38 40

he took 4 adults, and then I counted up from 5 to 60, and 20 children can come too.

Activity 2

Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo?

Use pictures, words, and/or numbers to show how you solve the question.

5 7 9 11 13 15 20

25 27 29 31 33 35 40
45 47 49 51 53 55 60

three groups, each two adults can go to the zoo

Rationale – Exemplar B

Problem Solving and Reasoning	Descriptor	Comments
• identifies the **relevant** information to demonstrate an **understanding** of the **problem** [CN, R, V]	**Excellent** Representations use **only** relevant information and demonstrate a **complete** understanding of the problem.	Activity 1 – Relevant information is used effectively and a complete understanding is demonstrated (pictures, numbers, word responses and math sentence). A complete understanding of the problem is evident (understands that the cost of an adult ticket is different than a child's ticket). A strong connection is made in the relationship between the cost of tickets for adults and children and the total amount spent.
	Excellent Representations use **only** relevant information and demonstrate a **complete** understanding of the problem.	Activity 2 – A strong connection is made in the relationship between total amount spent and number of people in each group, (2 adults and 5 children per group).
• implements a strategy [CN, PS, R]	**Excellent** **Insightful** strategy is chosen and implemented..	Activity 1 – Purposeful strategies are chosen and implemented (uses skip counting by 5s and 2s, then adds them together 20 + 40 = 60).
	Excellent **Insightful** strategy is chosen and implemented..	Activity 2 – Purposeful strategies are chosen and implemented (an adult is added to the first group to make 20, then this pattern repeats to get to 60 using skip counting).
• applies learned mathematical concepts to reach a solution [C, CN, ME, PS, R, V]	**Excellent** Concepts are **consistently** applied accurately and lead to a **correct** solution.	Activity 1 – Math concepts are consistently applied to arrive at a logical and correct solution (20+40=60).
	Excellent Concepts are **consistently** applied accurately and lead to a **correct** solution.	Activity 2 – Math concepts are consistently applied to arrive at a logical and correct solution (groups of 20 with 60 above the last adult).
Communication	**Descriptor**	**Comments**
• uses pictures, words, numbers, and/or symbols to clearly articulate understanding [C]	**Excellent** Pictures, words, numbers, and/or symbols are **skillfully** chosen to **enhance** the clarity of the response.	Activity 1 – Thinking is made visible through the skillfully chosen use of pictures, a math sentence, numbers, and words to justify the correct answer ("he took 4 adults, and then I counted up from 5 to 60, and 20 children can come too").
	Excellent Pictures, words, numbers, and/or symbols are **skillfully** chosen to **enhance** the clarity of the response.	Activity 2 – Thinking is made visible through the skillfully chosen use of pictures, a math sentence, numbers, and words to justify the correct answer ("three groups, each two adults can go to the zoo").

Note: The numeracy task assessment categories used to assess a student's response directly relate to the mathematical processes (C, CN, ME, PS, R, T, V) found in the front matter of the Mathematics Kindergarten to Grade 9 Program of Studies.

When assessing a student's response, refer to the Grade 2 Mathematics Program of Studies.

Specific outcomes are found in the Administration Guidelines for Teachers.

SLA Grade 3 Numeracy Exemplar – C

Activity 1	Activity 2
Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo?	Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo?

Activity 1

Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo?

Ticket Prices
Adult $5   Child $2

Use pictures, words, and/or numbers to show how you solve the question.

Adult – $5

☺ ☺

2

60 – 5   55 – 5 = 50

Child – $2

☺☺ ☺☺ ☺☺ ☺☺ ☺☺ ☺☺ ☺☺ ☺☺ ☺☺ ☺☺ ☺☺ ☺☺
2 4 6 8 10 12 14 16 18 20 22 24

☺☺ ☺☺ ☺☺ ☺☺ ☺☺ ☺☺ ☺☺ ☺☺ ☺☺ ☺☺ ☺☺ ☺☺ ☺
25 26 28 30 32 34 36 38 40 42 44 46 48 50

Activity 2

Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo?

Use pictures, words, and/or numbers to show how you solve the question.

group 1

5 2+2+2+2+2
   7 9 11 13 15

group 2

☺ ☺ ☺ ☺ ☺ ☺
5 + 10
10

group 3

☺ ☺ ☺ ☺ ☺
15 5 + 10

group 4

☺ ☺ ☺ ☺ ☺ ☺
20 5 + 10   30

Rationale – Exemplar C

Problem Solving and Reasoning	Descriptor	Comments
• identifies the **relevant** information to demonstrate an **understanding** of the **problem** [CN, R, V]	**Proficient** Representations use **most** of the relevant information and demonstrate a **clear** understanding of the problem.	Activity 1 – Most of the relevant information is used (numbers and groupings). An understanding of the problem is clearly demonstrated (relationship between the cost of adult tickets and tickets for children; large faces represent the cost of adult tickets and small faces represent the cost of tickets for children to the sum of 60). Connections between are clearly demonstrated (the relationship between faces and cost as well as numbers and words).
	Proficient Representations use **most** of the relevant information and demonstrate a **clear** understanding of the problem.	Activity 2 – An understanding of the problem is clearly demonstrated (relationship between the cost of adult tickets and tickets for children).
• implements a strategy [CN, PS, R]	**Proficient** **Purposeful** strategy is chosen and implemented.	Activity 1 – Purposeful strategies are chosen and implemented (starts with the sum, subtracts 2 adults, then uses skip counting by 2's to 50).
	Proficient **Purposeful** strategy is chosen and implemented.	Activity 2 – Purposeful strategies are chosen and implemented (counts adults to 20, small error shown by counting students to 30, circles 1 adult and 5 students to make 4 groups).
• applies learned mathematical concepts to reach a solution [C, CN, ME, PS, R, V]	**Proficient** Concepts are **frequently** applied accurately and lead to an **essentially correct** solution.	Activity 1 – The application of mathematical concepts is essentially correct. Solution is correct (2 next to the picture of Mr. Smith and 25 next to the picture of a child).
	Proficient Concepts are **frequently** applied accurately and lead to an **essentially correct** solution.	Activity 2 – The application of mathematical concepts is essentially correct. The correct number of groups is clearly indicated by circles. There is a miscalculation in the sum for the student count (30).
Communication	**Descriptor**	**Comments**
• uses pictures, words, numbers, and/or symbols to clearly articulate understanding [C]	**Proficient** Pictures, words, numbers, and/or symbols are **thoughtfully** chosen to **strengthen** the clarity of the response.	Activity 1 – The organization of symbols and numbers clarifies and demonstrates the thought process (use of big faces for adults and small faces for children to represent the ticket cost and placement of numbers to pictures or faces strengthens the communication).
	Proficient Pictures, words, numbers, and/or symbols are **thoughtfully** chosen to **strengthen** the clarity of the response.	Activity 2 – The organization of symbols and numbers clarifies and demonstrates the thought process (use of big faces for adults and small faces for children to represent the ticket cost and grouping of numbers to pictures or faces strengthens the communication).

Note: The numeracy task assessment categories used to assess a student's response directly relate to the mathematical processes (C, CN, ME, PS, R, T, V) found in the front matter of the Mathematics Kindergarten to Grade 9 Program of Studies.

When assessing a student's response, refer to the Grade 2 Mathematics Program of Studies.

Specific outcomes are found in the Administration Guidelines for Teachers.

SLA Grade 3 Numeracy Exemplar – D

Activity 1	Activity 2
Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo?	Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo?

Activity 1

Use pictures, words, and/or numbers to show how you solve the question.

Adult - $5

$30

6 adults

Child - $2

$30

16 children

Activity 2

Use pictures, words, and/or numbers to show how you solve the question.

5   10

5   10

5   10

5   10

4 grop

20   40

Rationale – Exemplar D

Problem Solving and Reasoning	Descriptor	Comments
• identifies the **relevant** information to demonstrate an **understanding** of the **problem** [CN, R, V]	**Proficient** Representations use **most** of the relevant information and demonstrate a **clear** understanding of the problem.	Activity 1 – Relevant information is used (tallies, numbers, and word response). An understanding of the problem is clearly demonstrated (relationship between numbers and tallies to represent cost of tickets). Connections require minimal inferences (relationship between cost and number of people in each group is shown by tally groupings, for adult prices $5, and with child prices $2).
	Proficient Representations use **most** of the relevant information and demonstrate a **clear** understanding of the problem.	Activity 2 – An understanding of the problem is clearly demonstrated (relationship between cost of tickets and number of people in groups). Connections require minimal inferences (relationship between cost and number of people in each group is shown by tally groupings, for adult prices $5, and with child prices $2).
• implements a strategy [CN, PS, R]	**Proficient** **Purposeful** strategy is chosen and implemented.	Activity 1 – A purposeful strategy is chosen and implemented (5 tallies represents the adult and 2 tallies represents each child; tallies are grouped and labelled with numbers).
	Proficient **Purposeful** strategy is chosen and implemented.	Activity 2 – A purposeful strategy is chosen and implemented (5 tallies represents the adult and 2 tallies represents each child; tallies are labelled with numbers).
• applies learned mathematical concepts to reach a solution [C, CN, ME, PS, R, V]	**Proficient** Concepts are **frequently** applied accurately and lead to an **essentially correct** solution.	Activity 1 – An essentially correct solution is presented; however, it is unclear how the answer was determined (answer has 2 tallies too many, 30 and 30 sums to 60).
	Proficient Concepts are **frequently** applied accurately and lead to an **essentially correct** solution.	Activity 2 – An essentially correct solution is presented; however, it is unclear how the answer was determined (four 5s sum to 20 and four 10s sum to 40 and an inference must be made that 20 and 40 sum to 60).
Communication	**Descriptor**	**Comments**
• uses pictures, words, numbers, and/or symbols to clearly articulate understanding [C]	**Proficient** Pictures, words, numbers, and/or symbols are **thoughtfully** chosen to **strengthen** the clarity of the response.	Activity 1 – The use of grouped tallies, numbers, and words are used to communicate understanding of the problem. A limited amount of explanation is provided, but the thought process is evident.
	Proficient Pictures, words, numbers, and/or symbols are **thoughtfully** chosen to **strengthen** the clarity of the response.	Activity 2 – The use of grouped tallies, numbers, and words are used to communicate understanding of the problem. A limited amount of explanation is provided, but the thought process is evident.

Note: The numeracy task assessment categories used to assess a student's response directly relate to the mathematical processes (C, CN, ME, PS, R, T, V) found in the front matter of the Mathematics Kindergarten to Grade 9 Program of Studies.

When assessing a student's response, refer to the Grade 2 Mathematics Program of Studies.

Specific outcomes are found in the Administration Guidelines for Teachers.

SLA Grade 3 Numeracy Exemplar – E

Activity 1	Activity 2
Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo?	Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo?

Ticket Prices
Adult $5   Child $2

Use pictures, words, and/or numbers to show how you solve the question.

Adult - $5

Child - $2

	Activity 2

Use pictures, words, and/or numbers to show how you solve the question.

Rationale – Exemplar E

Problem Solving and Reasoning	Descriptor	Comments
• identifies the **relevant** information to demonstrate an **understanding** of the **problem** [CN, R, V]	**Adequate** Representations use **some** of the relevant information and demonstrate a **general** understanding of the problem	Activity 1 – The organization demonstrates a clear understanding of the information required to solve the problem (stick figures and numbers). The relationship between cost and number of people needs to be inferred as the stick figures are of various sizes, only the numbers provide an understanding of the relationship (the numbers respond to the question, 8 adults and 10 children). Connections are clearly evident (stick figures and numbers).
	Adequate Representations use **some** of the relevant information and demonstrate a **general** understanding of the problem	Activity 2 – The organization demonstrates a clear understanding of the information required to solve the problem (stick figures and numbers). The relationship between cost and number of people needs to be inferred as the stick figures are of various sizes, only the numbers provide an understanding of the relationship (the numbers respond to the cost of each group to the sum of 60). Connections are clearly evident (stick figures and numbers).
• implements a strategy [CN, PS, R]	**Adequate** **Appropriate** strategy is chosen and implemented.	Activity 1 – An appropriate strategy is demonstrated; however, inferences are required (skip counting by 5s and 2s).
	Adequate **Appropriate** strategy is chosen and implemented.	Activity 2 – An appropriate strategy is demonstrated; however, inferences are required (addition of $5 and $10 to the sum of $15 for each group, followed by the addition of 4 groups of 15).
• applies learned mathematical concepts to reach a solution [C, CN, ME, PS, R, V]	**Adequate** Concepts are **generally** applied accurately and lead to a **straightforward** solution; minor errors or oversights may be evident.	Activity 1 – The number concepts are applied accurately.
	Adequate Concepts are **generally** applied accurately and lead to a **straightforward** solution; minor errors or oversights may be evident.	Activity 2 – The number concepts are required to understand the solution to the problem as the solution is not directly stated.
Communication	**Descriptor**	**Comments**
• uses pictures, words, numbers, and/or symbols to clearly articulate understanding [C]	**Adequate** Pictures, words, numbers, and/or symbols are **appropriately** chosen to **support** the clarity of the response; some inferences may be required.	Activity 1 – Use of symbols and numbers provide an appropriate understanding of the problem. Inferences are required as statements of thinking and solutions are absent (the cost of 8 adults sum to $40 and 10 students sum to $20).
	Adequate Pictures, words, numbers, and/or symbols are **appropriately** chosen to **support** the clarity of the response; some inferences may be required.	Activity 2 – Use of symbols and numbers provide an appropriate understanding of the problem. Inferences are required as statements of thinking and solutions are absent (that each group consists of 1 adult and 5 children to the sum of $15).

Note: The numeracy task assessment categories used to assess a student's response directly relate to the mathematical processes (C, CN, ME, PS, R, T, V) found in the front matter of the Mathematics Kindergarten to Grade 9 Program of Studies.

When assessing a student's response, refer to the Grade 2 Mathematics Program of Studies.

Specific outcomes are found in the Administration Guidelines for Teachers.

SLA Grade 3 Numeracy Exemplar – F

Activity 1	Activity 2
Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo?	Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo?

Activity 1

Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo?

Ticket Prices
Adult $5   Child $2

Use pictures, words, and/or numbers to show how you solve the question.

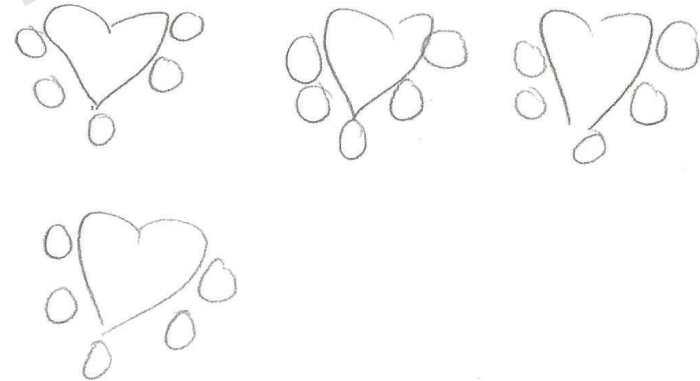| Adult - $5	two adults	two adults
	♡ ♡ ♡ ♡	
Child - $2	nineteen children	
	O O O O O O O O O O O O O O O O O O O	

Activity 2

Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo?

Use pictures, words, and/or numbers to show how you solve the question.

four groups

Rationale – Exemplar F

Problem Solving and Reasoning	Descriptor	Comments
• identifies the **relevant** information to demonstrate an **understanding** of the **problem** [CN, R, V]	**Adequate** Representations use **some** of the relevant information and demonstrate a **general** understanding of the problem	Activity 1 – The organization demonstrates an understanding of the information required to solve the problem (uses symbols and words). The relationship between cost and number of people is illustrated (inferences are required that hearts represent adults ($5) and circles represent children ($2)). Connections between activity 1 and activity 2 are evident.
	Adequate Representations use **some** of the relevant information and demonstrate a **general** understanding of the problem	Activity 2 – The organization demonstrates an understanding of the information required to solve the problem (uses symbols and words). The relationship between cost and number of people is illustrated (inferences are required that hearts represent adults ($5) and circles represent children ($2)). Connections are evident (the hearts and circles are grouped, an inference is made that each group of 1 adult and 5 children represents $15).
• implements a strategy [CN, PS, R]	**Adequate** **Appropriate** strategy is chosen and implemented.	Activity 1 – The illustrations represent an understanding of the problems; however, inferences must be made regarding the strategy used as numbers are not evident.
	Adequate **Appropriate** strategy is chosen and implemented.	Activity 2 – The illustrations represent an understanding of the problems; however, inferences must be made regarding the strategy used as numbers are not evident.
• applies learned mathematical concepts to reach a solution [C, CN, ME, PS, R, V]	**Adequate** Concepts are **generally** applied accurately and lead to a **straightforward** solution; minor errors or oversights may be evident.	Activity 1 – A basic understanding of mathematical concepts is demonstrated. Solutions need to be inferred, the cost of 2 adults and 2 adults sum to 20. A minor error is evident with "nineteen children".
	Adequate Concepts are **generally** applied accurately and lead to a **straightforward** solution; minor errors or oversights may be evident.	Activity 2 – A basic understanding of mathematical concepts is demonstrated. The relationship between cost and number must be inferred as no numbers are given.
Communication	**Descriptor**	**Comments**
• uses pictures, words, numbers, and/or symbols to clearly articulate understanding [C]	**Adequate** Pictures, words, numbers, and/or symbols are **appropriately** chosen to **support** the clarity of the response; some inferences may be required.	Activity 1 – The use of hearts and circles appropriately communicates thinking for the activity. Inferences are required as numbers are absent. The solution to the problem is generally appropriate (2 adults and 2 adults sum to 20 and, without the error, the children sum to 40).
	Adequate Pictures, words, numbers, and/or symbols are **appropriately** chosen to **support** the clarity of the response; some inferences may be required.	Activity 2 – The use of hearts and circles appropriately communicates thinking for the activity. Inferences are required as numbers are absent. The solution to the problem is generally appropriate (the correct solution is provided, four groups).

Note: The numeracy task assessment categories used to assess a student's response directly relate to the mathematical processes (C, CN, ME, PS, R, T, V) found in the front matter of the Mathematics Kindergarten to Grade 9 Program of Studies.

When assessing a student's response, refer to the Grade 2 Mathematics Program of Studies.

Specific outcomes are found in the Administration Guidelines for Teachers.

SLA Grade 3 Numeracy Exemplar – G

Activity 1	Activity 2
Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo?	Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo?

Activity 1

Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo?

Ticket Prices

Adult $5   Child $2

Use pictures, words, and/or numbers to show how you solve the question.

Adult - $5

2

Child - $2

100

I $10 from $60 so there was 50 then I ted 50 and 50

Activity 2

Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo?

Use pictures, words, and/or numbers to show how you solve the question.

5
10
15
20
25
30
35
40
45
50
55
60

Rationale – Exemplar G

Problem Solving and Reasoning	Descriptor	Comments
• identifies the **relevant** information to demonstrate an **understanding** of the **problem** [CN, R, V]	**Limited** Representations use **little** of the relevant information and demonstrate a **partial** understanding of the problem.	Activity 1 – Representations demonstrate a partial understanding of the problem (2 adults, "I $10 from $60 so there was 50"). Relationship between people and ticket cost is partially understood ("I $10 from $60 so there was 50 then I +ed 50 and 50"). Connections are missing and inaccurate (the activity shows the relationship of $10 for 2 adults).
	Limited Representations use **little** of the relevant information and demonstrate a **partial** understanding of the problem.	Activity 2 – Relationship between people and ticket cost is partially understood ("I $10 from $60 so there was 50 then I +ed 50 and 50"). Connections are missing and inaccurate (the activity shows the cost for each group, 1 adult and 5 children, is $5).
• implements a strategy [CN, PS, R]	**Limited** **Inappropriate** strategy is chosen and/or strategy is **inaccurately** implemented.	Activity 1 – The strategy of addition and subtraction is applied; however, critical information is misinterpreted leading to incorrect solutions.
	Limited **Inappropriate** strategy is chosen and/or strategy is **inaccurately** implemented.	Activity 2 – The strategy of addition and subtraction is applied; however, critical information is misinterpreted leading to incorrect solutions.
• applies learned mathematical concepts to reach a solution [C, CN, ME, PS, R, V]	**Limited** Concepts are **rarely** applied accurately leading to a solution that is **incorrect**.	Activity 1 – Mathematical concepts are applied incorrectly. Critical information is misinterpreted, leading to errors (100 children). Addition and subtraction are correct but the numbers used are irrelevant (60-10=50+50=100) and inferences are required.
	Limited Concepts are **rarely** applied accurately leading to a solution that is **incorrect**.	Activity 2 – Mathematical concepts are applied incorrectly. Critical information is misinterpreted, leading to errors. Errors in drawing of the number chart (different amounts of tallies in each row).
Communication	**Descriptor**	**Comments**
• uses pictures, words, numbers, and/or symbols to clearly articulate understanding [C]	**Limited** Pictures, words, numbers, and/or symbols are **haphazardly** chosen and may **interfere** with the clarity of the response; inferences are required.	Activity 1 – Use of symbols, words, and numerals to explain the thinking process interferes with the clarity of the response ("I $10 from $60 so there was 50 then I +ed 50 and 50").
	Limited Pictures, words, numbers, and/or symbols are **haphazardly** chosen and may **interfere** with the clarity of the response; inferences are required.	Activity 2 – Use of symbols, words, and numerals to explain the thinking process interferes with the clarity of the response (groups of 2 tallies does not differentiate between adults and children).

Note: The numeracy task assessment categories used to assess a student's response directly relate to the mathematical processes (C, CN, ME, PS, R, T, V) found in the front matter of the Mathematics Kindergarten to Grade 9 Program of Studies.

When assessing a student's response, refer to the Grade 2 Mathematics Program of Studies.

Specific outcomes are found in the Administration Guidelines for Teachers.

SLA Grade 3 Numeracy Exemplar – H

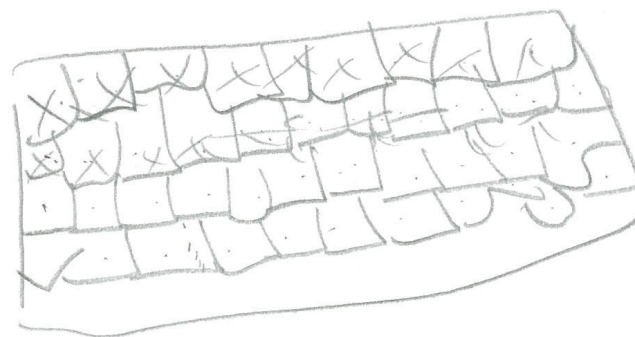| Activity 1	Activity 2
Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo?	Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo?
Ticket Prices Adult $5 Child $2	
Use pictures, words, and/or numbers to show how you solve the question.	Use pictures, words, and/or numbers to show how you solve the question.
Adult - $5 — 5 Child - $2 — 9	6 groops I conted back. lik this

Rationale – Exemplar H

Problem Solving and Reasoning	Descriptor	Comments
• identifies the **relevant** information to demonstrate an **understanding** of the **problem** [CN, R, V]	**Limited** Representations use **little** of the relevant information and demonstrate a **partial** understanding of the problem.	Activity 1 – There is recognition of the need to use some of the information provided (indicates that 5 adults and 9 children are going to the zoo.) The relationship between the number of adults and the number of children going to the zoo and the cost of the tickets for adults and children is unclear. Connections are missing.
	Limited Representations use **little** of the relevant information and demonstrate a **partial** understanding of the problem.	Activity 2 – There is recognition of the need to use some of the information provided ("6 groops"). However, the information is misinterpreted or misrepresented. The relationship between the number of adults and the number of children going to the zoo and the cost of the tickets for adults and children is unclear. Connections are missing.
• implements a strategy [CN, PS, R]	**Limited** **Inappropriate** strategy is chosen and/or strategy is **inaccurately** implemented.	Activity 1 – There is little evidence of the implementation of a strategy. The numbers 5 and 9 may represent the number of people going to the zoo.
	Limited **Inappropriate** strategy is chosen and/or strategy is **inaccurately** implemented.	Activity 2 – There is little evidence of the implementation of a strategy. Has only written; ("6 groops, I conted back lik this…"). There are 5 rows with 9 squares in the top row; however, the remaining rows have a different number of squares.
• applies learned mathematical concepts to reach a solution [C, CN, ME, PS, R, V]	**Limited** Concepts are **rarely** applied accurately leading to a solution that is **incorrect**.	Activity 1 – Critical information is misinterpreted, leading to calculation errors. Writes 5 in adult section and 9 in child section. The ticket cost for the number of adults (5) would be $25 and for the 9 children $18 to a sum of $43, which is an incorrect solution.
	Limited Concepts are **rarely** applied accurately leading to a solution that is **incorrect**.	Activity 2 – Critical information is misinterpreted, leading to calculation errors. Writes "6 groops". The ticket cost for the number of 6 groups would be $90, which is an incorrect solution.
Communication	**Descriptor**	**Comments**
• uses pictures, words, numbers, and/or symbols to clearly articulate understanding [C]	**Limited** Pictures, words, numbers, and/or symbols are **haphazardly** chosen and may **interfere** with the clarity of the response; inferences are required.	Activity 1 – Use of pictures, words, and numbers is confusing and interferes with the clarity of the response.
	Limited Pictures, words, numbers, and/or symbols are **haphazardly** chosen and may **interfere** with the clarity of the response; inferences are required.	Activity 2 – Use of pictures, words, and numbers is confusing and interferes with the clarity of the response.

Note: The numeracy task assessment categories used to assess a student's response directly relate to the mathematical processes (C, CN, ME, PS, R, T, V) found in the front matter of the Mathematics Kindergarten to Grade 9 Program of Studies.

When assessing a student's response, refer to the Grade 2 Mathematics Program of Studies.

Specific outcomes are found in the Administration Guidelines for Teachers.

SLA Grade 3 Numeracy Exemplar – I

Activity 1	Activity 2
Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo?	Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo?

Activity 1

Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo?

Ticket Prices

Adult $5   Child $2

Use pictures, words, and/or numbers to show how you solve the question.

Adult - $5

5

Child - $2

3

Activity 2

Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo?

Use pictures, words, and/or numbers to show how you solve the question.

Grop

Rationale – Exemplar I

Problem Solving and Reasoning	Descriptor	Comments
• identifies the **relevant** information to demonstrate an **understanding** of the **problem** [CN, R, V]	**Insufficient Evidence** There is **little or no evidence** that the problem is understood.	Activity 1 – Little information from the problem is used (the numbers 5 and 2 represent the cost of the tickets). The relationship between the difference of cost for adult and child tickets is missing. No connections are made.
	Insufficient Evidence There is **little or no evidence** that the problem is understood.	Activity 2 – Little information from the problem is used (shows recognition of a group, ^ points to Mr. Smith and 5 children with "Grop" below). The relationship between the difference of cost for adult and child tickets is missing. No connections are made.
• implements a strategy [CN, PS, R]	**Insufficient Evidence** There is **little or no evidence** of a strategy being used.	Activity 1 – There is no evidence of the implementation of a strategy (numbers are repeated from the picture).
	Insufficient Evidence There is **little or no evidence** of a strategy being used.	Activity 2 – There is no evidence of the implementation of a strategy.
• applies learned mathematical concepts to reach a solution [C, CN, ME, PS, R, V]	**Insufficient Evidence** There is **little or no evidence** of mathematical concepts being applied.	Activity 1 – There is no evidence of mathematical concepts being applied.
	Insufficient Evidence There is **little or no evidence** of mathematical concepts being applied.	Activity 2 – There is no evidence of mathematical concepts being applied.
Communication	**Descriptor**	**Comments**
• uses pictures, words, numbers, and/or symbols to clearly articulate understanding [C]	**Insufficient Evidence** Pictures, words, numbers, and/or symbols **significantly interfere** with the clarity of the response; the response **lacks** clarity.	Activity 1 – Lack of communication interferes with any understanding of the thinking process (numbers 5 and 2).
	Insufficient Evidence Pictures, words, numbers, and/or symbols **significantly interfere** with the clarity of the response; the response **lacks** clarity.	Activity 2 – Lack of communication interferes with any understanding of the thinking process ("Grop").

Note: The numeracy task assessment categories used to assess a student's response directly relate to the mathematical processes (C, CN, ME, PS, R, T, V) found in the front matter of the Mathematics Kindergarten to Grade 9 Program of Studies.

When assessing a student's response, refer to the Grade 2 Mathematics Program of Studies.

Specific outcomes are found in the Administration Guidelines for Teachers.

SLA Grade 3 Numeracy Exemplar – J

Activity 1	Activity 2
Mr. Smith buys tickets for the zoo. The TOTAL cost of the tickets is $60. How many adults and children does Mr. Smith take to the zoo? **Ticket Prices** Adult $5　Child $2 Use pictures, words, and/or numbers to show how you solve the question. Adult - $5 Child - $2	Mr. Smith spends $60 on tickets. Each group of 5 students needs at least 1 adult. How many groups go to the zoo? Use pictures, words, and/or numbers to show how you solve the question.

Rationale – Exemplar J

Problem Solving and Reasoning	Descriptor	Comments
• identifies the **relevant** information to demonstrate an **understanding** of the **problem** [CN, R, V]	**Insufficient Evidence** There is **little or no evidence** that the problem is understood.	Activity 1 – There is no evidence that the problem is understood. The relationship between the difference of cost for adult and child tickets is missing. No connections are made.
	Insufficient Evidence There is **little or no evidence** that the problem is understood.	Activity 2 – There is no evidence that the problem is understood… "?". The relationship between the difference of cost for adult and child tickets is missing. No connections are made.
• implements a strategy [CN, PS, R]	**Insufficient Evidence** There is **little or no evidence** of a strategy being used.	Activity 1 – No strategy is evident.
	Insufficient Evidence There is **little or no evidence** of a strategy being used.	Activity 2 – No strategy is evident.
• applies learned mathematical concepts to reach a solution [C, CN, ME, PS, R, V]	**Insufficient Evidence** There is **little or no evidence** of mathematical concepts being applied.	Activity 1 – There is no evidence of mathematical concepts being applied.
	Insufficient Evidence There is **little or no evidence** of mathematical concepts being applied.	Activity 2 – There is no evidence of mathematical concepts being applied.
Communication	**Descriptor**	**Comments**
• uses pictures, words, numbers, and/or symbols to clearly articulate understanding [C]	**Insufficient Evidence** Pictures, words, numbers, and/or symbols **significantly interfere** with the clarity of the response; the response **lacks** clarity.	Activity 1 – Communication relevant to problem solving is not evident.
	Insufficient Evidence Pictures, words, numbers, and/or symbols **significantly interfere** with the clarity of the response; the response **lacks** clarity.	Activity 2 – Communication relevant to problem solving is not evident.

Note: The numeracy task assessment categories used to assess a student's response directly relate to the mathematical processes (C, CN, ME, PS, R, T, V) found in the front matter of the Mathematics Kindergarten to Grade 9 Program of Studies.

When assessing a student's response, refer to the Grade 2 Mathematics Program of Studies.

Specific outcomes are found in the Administration Guidelines for Teachers.

Appendix

Clarification of Terms Used in the Numeracy Performance Task Descriptors

This information provides more detailed explanations of some terms used in the Performance Task Descriptor statements.

Clarification of Quantitative Terms Used in the Performance Task Descriptors				
Excellent	**Proficient**	**Adequate**	**Limited**	**Insufficient Evidence**
complete, insightful, consistently, correct, skillfully	most, clear, purposeful, frequently, essentially correct, thoughtfully	some, general, appropriate, straightforward	little, partial, inappropriate, inaccurately, rarely, incorrect, haphazardly	little or no evidence, significantly interferes, lacks clarity
Evidence is always present; an occasional "slip" may occur, but there are many examples of comprehensive understanding.	Evidence is often present; there may be some inconsistencies throughout the response.	Evidence is commonly present, particularly in less complex parts of the response; inconsistencies are obvious.	Evidence is rarely present; there are numerous inconsistencies and/or there is minimal evidence of understanding.	There is not enough evidence to make an accurate assessment.

Clarification of Qualitative Terms Used When Implementing a Strategy				
Insightful	**Purposeful**	**Appropriate**	**Inappropriate**	**Little or No Evidence**
The strategy used may be novel, unique, or demonstrate a fresh perspective. There may be more than one strategy shown. The strategy should be effective and efficient, easily identified, and follow an appropriate sequence.	The strategy used may be intentional, focused, and credible. The strategy is systematic and follows a logical sequence.	The strategy used may be predictable and practical. There may be some errors in sequencing.	The strategy used may be lacking organization or be indiscriminately chosen. The steps may seem arbitrary, careless, or erratic.	There is not enough evidence to make an accurate assessment.