Grades 1-7
Student Numeracy Assessment and Practice (SNAP)
For Number Sense Teacher Guide

Revised April 9, 2024

What is the SNAP?

Student Numeracy Assessment and Practice (SNAP) is the Okanagan Skaha School District numeracy assessment for all students in grades K-7. It was originally created by a group of Chilliwack educators and has been adapted by the SD #67 Numeracy Helping Teachers, Kim Robb and Lianna Tucker with input from classroom teachers. Parkway Elementary School began using the SNAP in the 2021-2022 school year.

Each area of the SNAP is connected to a particular BC Curricular Competencies in math and is communicated on the SNAP with colour coding. Data from the SNAP will guide you in selecting number sense activities and routines to support the learners in your classroom.

While the SNAP can be used as many times as you'd like throughout the year, it is not recommended that you use it regularly as a practice tool, but instead keep it as an assessment tool to guide your instruction. Once areas of need are identified, there are many daily high yield number sense routines as well as whole or small-group instruction that will help your students increase their numbers sense. Many number sense activities and routines can be found on 67learns.com.

The Number Sense SNAP format is the same for grades 2-7, but the number concepts (taken from the BC Math Curriculum) change and are listed in the chart below. Because the goal is that students are proficient at the end of the school year, the beginning of the year SNAP is the SNAP from the previous grade.

Grade	Number Sense
1	Number concepts to 20
2	Number concepts to 100 Any two-digit number
3	Number concepts to 1 000 Any three-digit number
4	Number concepts to 10 000 Any four-digit number
5	Number concepts to 1 000 000 Any six-digit number
6	Number concepts to thousandths to billions Any decimal to the hundredths
7	Integers concepts Any two-digit negative whole numbers

Administering the SNAP

When introducing your students to the SNAP, project the SNAP, and explicitly teach and model each component of the assessment using numbers, student should be comfortable with from previous years. As the SNAP is used within a school, students will become more familiar with the tool and will need less instruction.

MATERIALS NEEDED:

1. SNAP recording sheet for each student. If you have students working below grade level, choose a copy of the SNAP for their level without the grade indicated on the SNAP. These can be found on 67learns.com under "Assessments". It is recommended that each time you administer the SNAP, you check the website for the most up to date version.

   PREPARATION OF THE SNAP before printing:

   - Put the date and teacher name on the page.
   - Decide your number giving careful thought to what will happen when the students do their forwards and backwards counting… does it move to another family (10s, 100s, 1 000s etc.)
   - Fill in what you want your students to count forwards and backwards by for the group counting ladders. With the beginning of the year SNAP, you might want your group counting to be what you would consider easy for your grade just so you can see who doesn't have that skill. In many cases we assume our students have mastered skills from previous years, such as counting by 2s, when they haven't. Place your starting number on the arrows.

2. Rubric page – either one for each student (Place date and teacher name on rubric before printing) or just one copy for your marking as the scale is on the bottom of each SNAP.
3. Download and Save Class Data Chart (Optional)

DIRECTIONS and EXPECTATIONS FOR EACH PORTION OF SNAP

DRAW:

Ask the students to draw a picture that shows the value of the number. Students might use base ten blocks or money to represent their number. With lower numbers, they might use tally marks or pictures of items to show understanding.

TEN FRAME (Grade 1 only):

Ask the students to fill in the ten frames to represent the number. They should start at the top left. It is ideal not to tell them this during the assessment to see if they are aware of the expectation.

GROUP COUNTING:

Ask the students to begin at the number and count forwards and backwards by number chosen by the teacher. By the end of grade 3, it is expected that students are able to group count by any number from any starting point.

DECOMPOSE/EQUATIONS:
Ask the students to create 3 equations that equal the given number. Students who are demonstrating full proficiency will be using grade appropriate operations in their equations.

Grade	What to look for:
1	Any three equations (+ or -)
2	Shows an understanding of making 10 and use of doubles and friendly numbers. Understanding of making zero to achieve a sum (124-124+64=64), Evidence of use of a pattern in any group of equations.
3	Using more than 2 terms show evidence of understanding of place value (300+300+2+2=604, or 200+200+200+4=604) Evidence of making hundreds (560+40+4=604)
4	Using more than 2 operations, (x, + and -) (500x4+3000+25=50)
5	Uses all operations
6	Uses all operations, (might include use of fractions, decimals or exponents)
7	Uses all operations, (might include use of fractions, integers, decimals or exponents)

REAL-LIFE EXAMPLE:
Ask the student to provide a real-life example of the number that demonstrates an understanding of the value of number. For instance, "My house number is 26." does not show an understanding of value; "We have 26 students in our school." shows an understanding of "how much" 26 is.

NUMBER PATH (Grade 1):
Ask students to circle the correct number of boxes on the number path. The boxes must be connected in one group. Check to see if they are using benchmarks of 5 and 10 to build their number.

NUMBER LINE (Grades 2-5):
For grades 2-5, the endpoints to the number line are provided. To demonstrate full proficiency, students will add appropriate benchmarks to their number line to help situate the number.

Benchmarks for Number Lines by Grade:

2	5 and 10	25, 50, 75
3	25, 50, 75	250, 500, 750
4	250, 500, 750	2 500, 5 000, 7 500
5	2 500, 5 000, 7 500	250,000, 500,000, 750 000
6	250,000, 500,000, 750 000	Appropriate for number given
7	Appropriate for number given	Appropriate for number given

Students should not try and add ALL numbers to a number line (e.g., all number between 0 and 20, if those are the endpoints or for larger numbers every decade or hundred or thousand etc.). It is possible that they do not need all the benchmarks listed. They do need to have a beginning, middle and end benchmark as well as one at the quarter point of their number. For example, if the number is 435, their number line should have 0, 250, 500 and 1000. Students should not

REFLECTION (Grades 3 – 5):

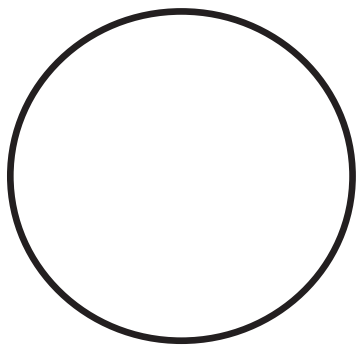
Reflections are an important component of our curriculum as they allow students to link ideas and construct meaning from their experiences. Students should have opportunities to reflect on their learning at the end of every lesson. Providing guiding questions for students is helpful to develop their proficiency with this skill:

- What strategies did you find useful with this task?
- What were your strengths and stretches?
- What are you proud of?
- What would you like to learn more about?
- I am working on…
- What I learned about myself as a mathematician is…

Teacher_____ Date: _____

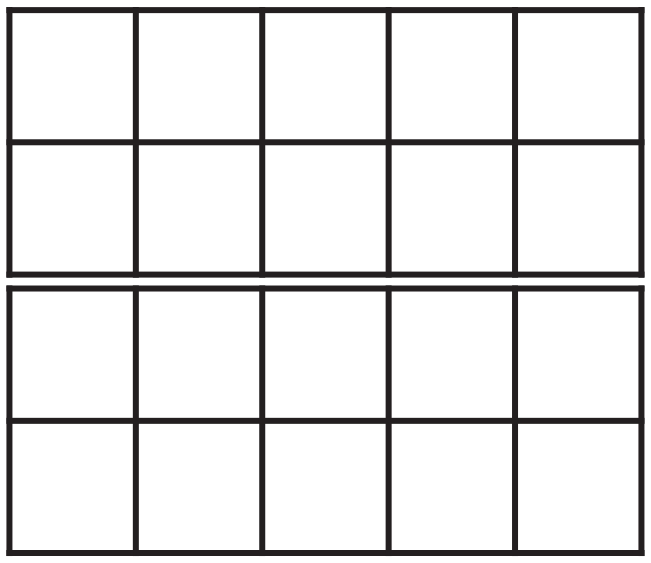
Name:_____

Beginning of Grade 2 Number Sense (0 - 20) SNAP



Draw a picture to represent the value of the number.

Draw the number on the ten frames.



Talk about or draw a real-life example that shows the value of the number.

Count **backwards** by 1 or 2 (Circle One) from the number.

Count **forwards** by 1 or 2 (Circle One) from the number.

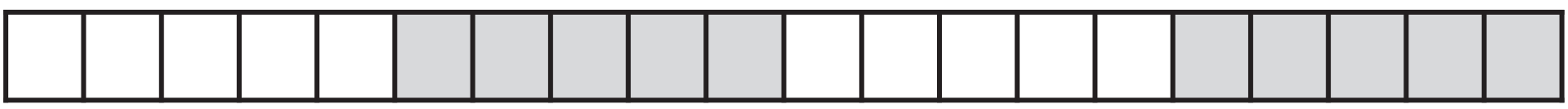
Show the two numbers that come before and after.

_____, _____, _____, _____, _____,

Decompose the number in three ways to make three equations.

1.	
2.	
3.	

Show the number on the number path.



Communicating & Representing:
Draw 1 2 3
More/Less 1 2 3
Ten Frames 1 2 3

Understanding & Solving:
Decompose 1 2 3

Connecting & Reflecting:
Real-Life 1 2 3

Reasoning & Analyzing:
Counting Forward 1 2 3
Counting Backwards 1 2 3
Number Path 1 2 3

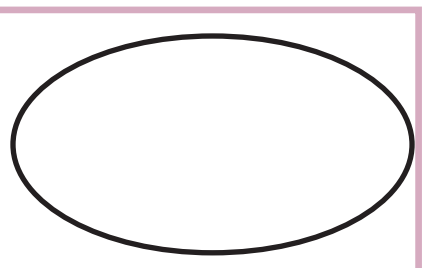
1 – Emerging **2 – Developing** **3 – Proficient**

Name:_____Teacher_____ Date: _____

End of Grade 2 Number Sense (0 - 100) **SNAP**

Count **forwards** by ____ (1, 2, 5 or 10) from the number.

Draw a picture to represent the value of the number.



Write the number in words.

Write the number in expanded form.

Decompose the number in three ways to make three equations.

1.	
2.	
3.	

Count **backwards** by ____ (1, 2, 5 or 10) from the number.

Write a real-life example that shows the value of the number.

Show the number on the number line.

Communicating & Representing:		**Understanding & Solving:**		**Connecting & Reflecting:**		**Reasoning & Analyzing:**	
Draw	1 2 3	Decompose	1 2 3	Real-Life	1 2 3	Counting Forward	1 2 3
Words	1 2 3					Counting Backwards	1 2 3
Expanded Form	1 2 3					Number Line	1 2 3

1 – Emerging **2 – Developing** **3 – Proficient**

Beginning of Grade 2 Number Sense (0 - 20) SNAP

Name:_____Teacher_____ Date: _____

Competency	1 Student understanding and application of learning standard is not yet evident EMERGING	2 Student demonstrates some understanding and application of number sense DEVELOPING	3 Student demonstrates proficient understanding and application of number sense PROFICIENT	Teacher Notes
Communicating & Representing: Draw	- Not yet able to	- With prompting, the model clearly represents the number value	- Model clearly represents the number value	
More/Less	- Not yet able to	- Is partially accurate	- Is able to show one and two more and less	
Build the number on Ten Frames	- Not yet able to	- Has the number on the ten frames, but has not grouped them by 5s and 10s	- Able to build the number on the ten frames making use of the 5s and 10s	
Understanding & Solving: Decompose the number in 3 ways	- Not yet able to	- Is able to accurately decompose the number in **one** or **two** ways	- Accurately decomposes the number in **three** different ways	
Connecting & Reflecting: Real-Life Connection	- Not yet able to	- With prompting, a connection to a realistic real-life example but doesn't indicate an understanding of the number value	- Clear connection to a real-life example is provided that demonstrates understanding of the number value	
Reasoning & Analyzing: Counting Forwards and Backwards	- Not yet able to	- Partially complete and accurate and/or needed prompting	- Complete and accurate	
Number Path (See Number Path video)	- Not yet able to	- Has circled/marked each box or circle/marked where the number would be	- One circle of the whole quantity of boxes	
Number Line	- Not yet able to	- Partially accurate placement of number on number line	- Correct placement of number on number line with a benchmark	

Grades 2 to 5 Number Sense SNAP Rubric

Name:_____Teacher_____ Date: _____

Competency	1 Student understanding and application of learning standard is not yet evident EMERGING	2 Student demonstrates some understanding and application of number sense DEVELOPING	3 Student demonstrates proficient understanding and application of number sense PROFICIENT	Teacher Notes
Communicating & Representing: Picture Box	- Pictures do not show the value of the number - Inaccurate	- Pictures show some value in representing the number - Partially accurate	- Pictures are clearly communicated and represent the value of the number - Accurate	
Number Written in Words	- Incomplete and/or inaccurate	- Partially accurate	- Accurate	
Expanded Form	- Value of each digit is not evident	- Partially accurate in demonstrating the value of each digit	- Accurately demonstrates the value of each digit	
Understanding & Solving: Decompose the number in 3 ways	- Accurate grade appropriate operations are not evident	- Accurate use of grade appropriate operations in one or two equations	- Accurately use grade appropriate operations in all three equations	
Connecting & Reflecting: Real-Life Connection	- A real-life example is not provided	- A partial connection to a real-life example is provided	- Connection to a real-life example is provided - Demonstrates understanding of the number value	
Reflection	- Simple reflections on mathematical thinking are not evident	- Simple reflections on mathematical thinking are evident	- Some insight on mathematical thinking is evident	
Reasoning & Analyzing: Counting Forwards	- Incomplete and inaccurate	- Partially complete and accurate	- Complete and accurate	
Counting Backwards	- Incomplete and inaccurate	- Partially complete and accurate	- Complete and accurate	
Number Line	- Incorrect estimate placement of number on provided number line	- Partially correct estimate of placement of number on provided number line	- Correct estimate of placement of the number on provided number line with benchmarks	