



Grades 1-7

Student Numeracy Assessment and Practice (SNAP)

Teacher Guide

The Student Numeracy Assessment and Practice (SNAP) is a numeracy assessment used in the Okanagan Skaha School District for students in grades K-7. Originally created by educators in Chilliwack, it has been adapted by SD 67 Numeracy Helping Teachers with input from classroom teachers.

SNAP aligns with BC Curricular Competencies and number sense content, using colour coding to indicate connections. The assessment data helps teachers select effective number sense activities and routines to support student learning. Once students' needs are identified, teachers can use daily high-yield routines and small-group or whole-class instruction to strengthen their number sense. Many helpful activities can be found at **67learns.com**.

The SNAP format remains consistent for grades 2-7, though the specific number concepts—drawn from the BC Math Curriculum—vary by grade level

When introducing your students to SNAP, project the SNAP, and **explicitly teach and model** each component of the assessment using numbers, students 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.

In Grade one, teachers should administer the SNAP in small groups or one-on-one in order to best observe students. If necessary, teachers should provide students with counters or materials to complete the decompose sections. Students who are unable to write their numbers in the counting section should be asked to orally count forward and backward for the teacher to observe their counting skill. Teachers may choose to scribe the real life example for their grade one students at the beginning of the year in order to achieve adequate understanding.

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.”
2. Rubric page – either one for each student) or just one copy for your marking as the scale is on the bottom of each SNAP.

DIRECTIONS FOR ADMINISTERING THE SNAP

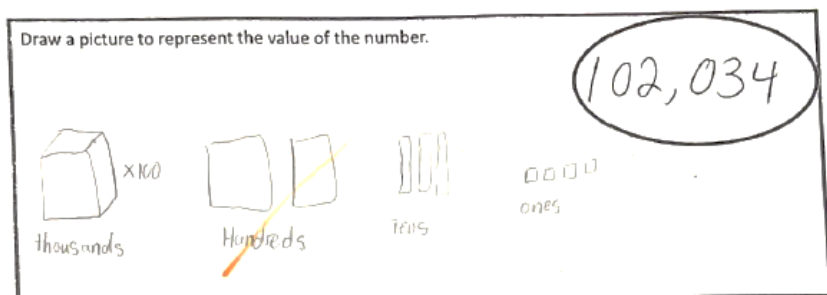
Grade	Number Concepts by Grade Level		
	Recommended Numbers for Assessment	November	June
1	Number concepts to 20	12	15
2	Number concepts to 100	34	86
3	Number concepts to 1 000	327	568
4	Number concepts to 10 000	3904	6138
5	Number concepts to 1 000 000	345,826	762 346
6	Number concepts to thousandths to billions		45.892
7	Integers concepts		-75

The SNAP can be used as a number sense practice tool using any number, but for teachers entering scores into Ed Plan Insight, please refer to the chart above for numbers.

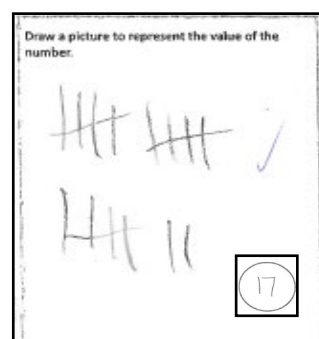
DRAW/REPRESENT

Ask the students to draw two pictures that show the value of the number. Students might use base ten blocks, ten-frames or money to represent their number. With smaller numbers, they might use tally marks, dice or pictures of items to show understanding. **For Grades 1- 3 the student must show two different representations.**

A few examples:



Grade 5 student has included labels to clearly show value of number using place value



Grade 1 uses tally marks to show value of 17

COUNTING

Ask the students to begin at the selected number and count forwards and backwards skip counting by the number provided on the assessment. By the end of grade 3, it is expected that students can count flexibly by any number from any starting point. Please refer to the chart below for recommendations for counting by grade level.

Grade	Number Sense	
	Fall	Spring
1	Forward and backward by 1	
2	Forward 2, 10, Backward 1s	Forward by 2, Backward by 10
3	Forward by 5, Backward by 10	Forward by 20, Backward by 3
4	Forward by 6 Backward by 4	Forward by 300 Backward by 25
5	Forward by 25, Backward 5	Forward by 250 backward by 30
6	Whole Number	Forward by .12 backward by .6
7	Whole Number	Forward by 12, backward by 20

102	Count backwards by <u>10</u> (1, 2, 5 or 10) from the number.
100	86
98	76
96	66
94	56
92	46
90	36
88	26
86	16
Count forwards by <u>2</u> (1, 2, 5 or 10) from the number.	8

Grade 2 student counts forward and backward beginning at the prescribed number.

102,066	Count backwards by <u>10</u> from the number.
102,062	102,034
102,058	102,024
102,054	102,014
102,050	102,004
102,046	101,994
102,042	101,984
102,038	101,974
102,034	101,964
Count forwards by <u>4</u> from the number.	

Grade 5 student counts forward and backward beginning at the prescribed number.

DECOMPOSE:

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. See below for “what to look for” consider the previous grade as well.

Grade	What to look for:
1	- Any three correct equations - Use of zero or 1 to achieve target number
2&3	- 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.
	- Using more than 2 terms shows evidence of understanding of place value ($300+300+2+2=604$, or $200+200+4=604$) - Evidence of making hundreds ($560+40+4=604$)
4	Using more than 2 operations (x, + and -) ($500 \times 4 + 3000 + 25 = 50$)
5	- Uses all 4 operations - Uses more than 2 terms - Shows evidence of understanding of place value and makes friendly numbers to achieve larger sum
6	Uses all operations (might include use of fractions, decimals or exponents)
7&8	- Uses all operations, (might include use of fractions, integers, decimals or exponents) - Demonstrates evidence of how negative numbers work - Uses order of operations, brackets and including common fractions ($\frac{1}{4}$ and $\frac{1}{2}$)

Examples:

Decompose the number in three ways to make three equations.

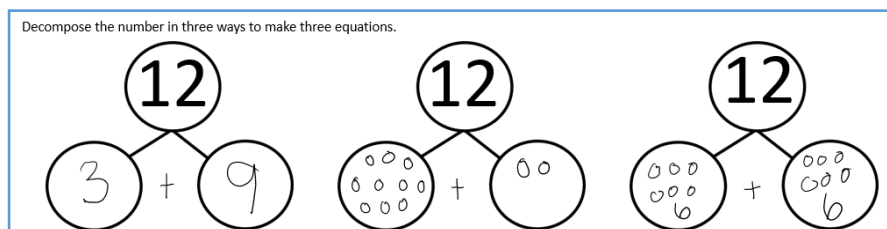
- $301 + 83 = 384$
- $300 + 90 - 10 + 4 = 384$
- $200 + 100 + 80 + 1 + 1 + 1 + 1 = 384$

Grade 3

Decompose the number in three ways to make three equations.

- $2997 - 10 = 2987$
- $2000 + 987 = 2987$
- $1000 + 1907 + 80 = 2987$

Grade 4



Grade 1: In the above example, a student uses numerals and pictures to help decompose the number in the Fall of Grade one. Both are accurate, however by the end of grade one, students will decompose using an equation.

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 class.” shows an understanding of “how much” 26 is. Students do not need to provide an exact example, rather a reasonable one.

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

There were about 4507 vee fans
at the game last weekend!

Grade 4 example using a local context

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

Today at 8am it was -12° , and throughout the
day it dropped 17° . By 2pm it was -29° .

Grade 7 example using integers

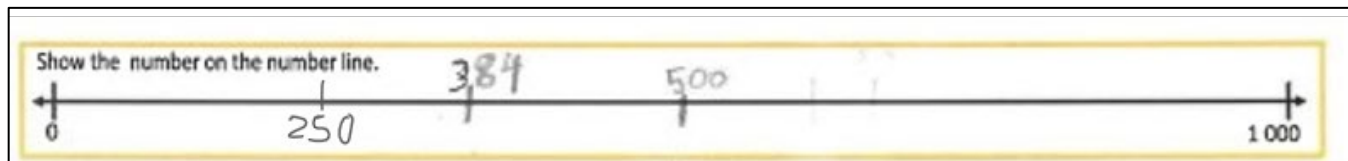
NUMBER LINE:

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:		
Grade 2	5 and 10	25, 50, 75
Grade 3	25, 50, 75	250, 500, 750
Grade 4	250, 500, 750	2 500, 5 000, 7 500
Grade 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 add ALL numbers to a number line (e.g., all numbers 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.

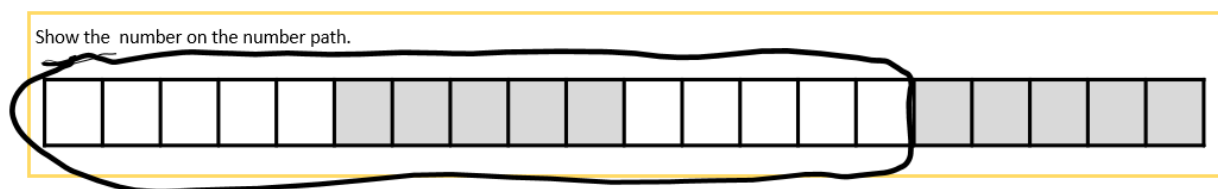
Example:



Grade 3: Indicated the center benchmark as well as the quarter benchmark in the lower half where the number is placed.

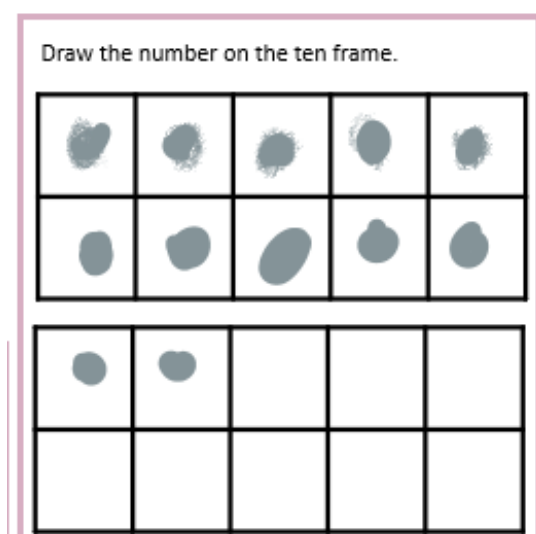
NUMBER PATH (Grade 1):

Ask students to circle the correct number of boxes on the number path. The boxes should be connected in one group. When working one-one, check to see if they are using benchmarks of 5 and 10 circle their number.



TEN FRAMES (Grades 1):

Students must represent their number on a ten-frame. This reflects the importance of the ten-frame model. Students should be familiar with using this model to develop number sense, represent numbers and add and subtract numbers.



REFLECTION (Grades 4-7):

Reflection score is not entered into Ed Plan. 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...

Reflect:
This was pretty easy for me to do because I have done this before with bigger numbers before. I feel like the "decompose the number in three ways to make three equations" part took the longest because it just took a while to do. The easiest part of this is when I had to count backwards by 20 from the number, because there was a easy pattern.

Reflect:
I think the most useful tool I used was my skip counting, it helped because knowing my times tables really well, helped me alot with the counting forwards and backwards.

Two Grade 7 students reflect on their strengths after completing the SNAP