Chilliwack School District

Teacher Guide

What is the SNAP?

The Student Numeracy Assessment and Practice (SNAP) is the Chilliwack district numeracy assessment for all students in grades 2 – 7. It was created by a group of Chilliwack educators and has been used in all grades 2 – 7 classes since September 2016.

The SNAP is a unique assessment; not only is it a measurement of achievement, but it is **intended to be used as a practice tool throughout the entire year.** The data it provides should be used to **inform and guide instructional planning**. If only used as a summative assessment, the SNAP will not help in achieving one of our main goals, which is to improve students' proficiency in number sense and operations.

The SNAP is a two-page assessment that focuses on the foundational skills of mathematics: Number Sense and Operations. It compliments any balanced math program and quickly provides teachers the information they need for responsive planning and instruction. **Access the SNAP Number Sense and Operations templates under the SNAP Templates tab on the website.**

SNAP is fully aligned with the BC Curricular Competencies in math. Each area of the assessment is connected to a particular competency, and the competencies are built right into the grading rubric. **Access the grading rubrics under the SNAP Templates tab on the website.** The rubrics are the same for all grades. It is a good idea to participate in collaborative marking with colleagues to help establish common expectations.

How to Effectively use the SNAP

SNAP practice does not always need to be on the SNAP templates; in fact, once areas of need are identified, most number sense and operations practice will happen through other strategies, such as daily high yield number sense routines (e.g. number talks, count around the circle) and whole or small-group instruction. **Find resources that support each of the four curricular competencies under the Resources tab on the website.** Explore the Recommended Links for sites that support the teaching and learning of number sense and operations.

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Learning Standards

While the SNAP templates and rubrics are the same for grades 2-7, the learning standards (pulled directly from the BC Math Curriculum) change and follow a spiraled approach. The table below outlines the learning standards that students will be assessed on at the end of May. The goal is that all students be proficient (3 on the rubric) in their grade-level standards by the end of the school year. The examples given in the Operations sections are examples of year-end appropriate operations. **There are no district-prescribed numbers or operations for the year-end assessment**.

GRADE	Number Sense	Operations (Sample operations)
2	Number concepts to 100 Any two-digit number	Addition of two-digit numbers without regrouping. 24 + 33 51 + 17
3	Number concepts to 1000 Any three-digit number	Subtraction of three-digit numbers with regrouping. 427 – 153 754 – 226
4	Number concepts to 10 000 Any four-digit number	Multiplication of a one-digit number by a three-digit number. 4 X 326 7 X 142
5	Number concepts to 1 000 000 Any six-digit number	Division of a three-digit number by a one-digit number with remainder. 625 ÷ 3 291 ÷ 4
6	Number concepts thousandths to billions Any decimal to the hundredths	Division of four-digit number to hundredths by one-digit whole number. Quotient should not exceed thousandths. 45.34÷5 71.76÷3
7	Integer concepts Any two-digit negative whole number	Percentage calculations. Find the percent of a number. Answer should be in the tenths or hundredths. 16% of 85 47 % of 42

Remember that the SNAP templates are intended to be used throughout the year for any numbers or operations in your curriculum.

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When introducing your students to the SNAP, take your time and explicitly teach and model each component of the assessment. Use content that the students should be confident with from previous years. You can chunk the assessment into smaller pieces. **The Zoom into SNAP templates under the Resources tab on the website chunk the assessment by competency**. You can complete SNAPs as a whole group guided activity and have students work with partners to help build confidence. Have students share their thinking; encourage them to use many different ways to demonstrate their thinking and solutions.

The SNAP templates

Access templates under SNAP Templates tab.

NUMBER SENSE:

See Grading Rubrics for specific criteria.

DRAW: The picture must show the value of the number.

SKIP-COUNTING: Begin at the number and count forwards and backwards by numbers chosen by the teacher. In practice, students can choose their own numbers, or choose from a selection of numbers to skip-count by.

EQUATIONS: Students who are demonstrating full proficiency will be using grade appropriate operations in their equations.

REAL-LIFE EXAMPLE: The examples must be realistic and specific. It is important that students demonstrate an understanding of value in their example.
For instance, “Wayne Gretzky’s number is 99” does not show an understanding of value; “we have 99 grade three students in our school” does. Literature and sharing out of real-life examples helps students to make connections to the numbers and add to their bank of knowledge.

NUMBER LINE: For grades 2-5, the endpoints to the number line are provided. For grades 6 & 7, the students choose their own endpoints according to the number chosen for the assessment. To demonstrate full proficiency, students will add benchmarks to their number line to help situate the number.

REFLECTION: Reflections help increase the value of a learning experience. 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.

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OPERATIONS

See Grading Rubrics for specific criteria.

ESTIMATE: Students will learn to value the skill of estimating through discussions about real-life situations where a person would typically estimate rather than calculate. In which situations would one prefer a high estimate? A low estimate? Explicit instruction on estimation strategies will allow students to select and use an appropriate strategy for the given operation.

DRAW*:* Students will visually represent the operation. The visual may or may not contain the solution to the operation. Consider the use of bar diagrams as an appropriate, proportional model for the operations.

CALCULATE: Multiple grade appropriate calculations demonstrate proficient achievement. Using the reverse operation to "check" their work is also a recommended strategy. Refer to your grade-specific curriculum elaborations for suggested alternate computation strategies.

REAL-LIFE EXAMPLE OR WORD PROBLEM: Students will provide details on a real-life situation where the given operation would be used to find an amount. Look for evidence that communicates their understanding of the use of the operation. For example, if the operation was 316-141 a student could suggest, "there were 316 blueberries on the bush and I picked 141 of them." For the teacher to know if they understand what the difference between 316 and 141 represents in this situation, they should add, "How many blueberries were left on the bush?"

> *Grade 2 Math Story*: Encourage students to draw pictures to "tell" their story if they do not have the written ability to write a short story. A quick follow up conversation will be required to know whether students are able to communicate their understanding.

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Data Entry

Chilliwack teachers will enter data into ePas by the end of November and by the end of May. November data entry is based on the previous year's outcomes, and is only to be completed by grades 3-7 teachers. So for example, grade 4 teachers will assess their students at the beginning of the year based on the grade 3 target outcomes and using the grade 3 templates. All grades 2-7 teachers will enter data into ePas by the end of May based on the current year's outcomes.
Another unique feature of the SNAP is that students are scored by competency. You will not total or average their scores in the four competencies. Students have until the end of the school year to practice and become proficient at their grade-level learning standards, however if during your pre-assessments prior to May you have students fully proficient, you may enter their data and create learning extension opportunities for those students.

Exemplars

The exemplars on the website are intended to represent proficiency in all categories. We will be updating our exemplars on an ongoing basis. Please feel free to send in student samples that you believe clearly show student proficiency. Scan and send to joanne_britton@sd33.bc.ca.

Acknowledgements

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