
Terminology to Support Provincial Math

General Terms

Number Strand

The curricular outcomes as designated by the Saskatchewan curriculum, related to numbers, numerals, and their use.

Math “At Grade Level” Holistic Rubrics

The four level rubric describes mathematical learning in the Number Strand, in relation to four levels. Level 1 is beginning skills, at which point readiness for learning in the area of numbers is being established. Level 2 describes number strand understanding as not fully “at grade level.” At this level, students are still practicing and applying strategies, and expressing their understanding. Level 3 defines “at grade level.” This implies independence and confidence in the mathematical processes required by the number strand at each grade level, as described by the provincial curriculum. Level 4 describes grade level skill and understanding in the Number Strand when it is enriched and extended.

These holistic rubrics are to be used for year-end reporting and is an overall reflection of mathematical learning in the Number Strand.

Holistic

A summary professional judgement based on multiple student artifacts as well as observations and conversations. The holistic criteria clarify what must be considered when making a holistic judgement. Clarification: Holistic judgments are not analytic, simply calculated or rolled up into a single score. Instead, they are a professional assessment decision, based on a teacher’s knowledge of curriculum and year end student knowledge and strategy use.

Analytic

A rubric or other assessment tool that clarifies and invites assessment of discrete criteria so instructional decisions and feedback conversations can occur in order to support growth.

Observation

Data, collected and documented while students are engaged in the learning process, which captures thinking, strategy application, questions asked, and degrees of independence.

Terms Related to Strategies

Strategies

Methods a student might employ when solving problems. Effective use of strategies shows an understanding of appropriate processes that will lead them closer a meaningful application within the context of a math problem.

Independent

Working independently means working alone, using his/her own knowledge, and choosing appropriate tools and strategies. Independent work happens without teacher intervention in relation to the specific skills and understanding described in the provincial curricular outcomes. Determination of independence is based on observations and conversations within the classroom context.

Problems

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A mathematical question (word problem or number sentence) that requires student thought and input using words, numerals or variables.

Terms Related to Application

Application

The action a student takes to select and implement strategies and use mathematical operations in order to solve problems and complete tasks.

Accuracy

Accuracy means completing a problem and ending up with a solution that is correct and reasonable; “getting the answer right.”

Flexibility

Completing a problem with flexibility means being able to use more than one strategy or representation correctly.

Efficiency

Completing a problem efficiently means evaluating strategies to determine which strategy will facilitate getting to the answer in a timely and correct manner. This is slightly different than being able to recall facts and information quickly.

Accuracy	→	Flexibility	→	Efficiency
I got it right!		I got it right in more than one way!		I got it right more than one way and determined the most efficient strategy.

Terms Related to Expression of Understanding

Expression of Understanding

When a student uses representations and words to communicate understanding and to show the ability to make connections between mathematical concepts.

Justify

Show and/or explain reasoning and thinking.

Multiple

More than one.

Single

In only one way.

Representation

A method for showing understanding and skill. The required representations to be proficient at grade level are dependent on grade level provincial outcomes. Students need to have experiences in working with many different types of representations and in transferring and translating knowledge between different forms of representations. They may include the following: concretely (manipulatives), pictorially (drawings, visual

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designs), In writing (using words), symbolically (writing numerals, operations, notation), orally (verbal, spoken word), and physically (demonstration, movement).

Mathematical Language

Communication of the connection between conceptual understanding and the mathematical term.

Synthesize

To use understood concepts to create new (to you) ideas; to design and imagine; to combine and relate separate ideas; to connect.

Connections

When students build an understanding that one concept does not exist in isolation, and that math concepts build and relate to each other. Ex. Skip counting by 2's = repeated addition as multiplication - $2+2+2+2 = 4 \times 2$

