

Publisher Questions to Western and Northern Canadian Protocol (WNCP) Mathematics Team

Grade 1

- 1. Our question concerns Gr. 1 Number outcome 7. "Demonstrate, concretely and pictorially, how a given number can be represented by a variety of equal groups with and without singles." Specifically, we're looking at the first achievement indicator: "Represent a given number in a variety of equal groups with and without singles, e.g., 17 can be represented by 8 groups of 2 and one single, 5 groups of 3 and two singles, 4 groups of 4 and one single, and 3 groups of 5 and two singles."**

Our question is: Does the representation of a given number in equal groups come about as a result of sharing one item at a time, or as a result of pulling out equal groups and seeing what's left?

WNCP Response: This outcome refers to the development of the concept of place value. Students need to learn that a number can have many representations and can be grouped into equal groups with or without singles. Eventually, children will be using groups of 10 to represent the base 10 system, which is representing a number with groups of ten with or without singles. This outcome does not refer to division and equal sharing. The treatment in the resource should reflect the formation of equal groups with or without singles.

Grade 4

- 2. In Gr.4, the new outcome N11 calls for addition and subtraction of decimals, and the achievement indicators specify including money problems and making change. Should money and other decimal amounts be limited to numbers less than 1 in Gr.4? If so, should sums also be less than 1? If decimals greater than 1 are to be included in Gr.4, should fractions greater than 1 also be included? If not, when do fractions greater than 1 appear?**

WNCP Response: The money sums do not need to be less than 1. There is no expectation that fractions greater than 1 will be addressed in grade 4. This concept does not appear until grade 6 so it would be an error to include it in grade 4.

Grade 5

- 3. In March 3 version of curriculum, Grade 5 Number outcome 7, a new achievement indicator has been added: "Express a given fraction or decimal as percent (limited to whole number percents)."**

Percent doesn't appear in a curriculum outcome until Grade 6. How might this achievement indicator be achieved without other teaching of percent at this grade level?

WNCP Response: This Achievement Indicator for outcome #7 in Grade 5 is not in the final version of the CCF.

4. Re. Gr.5 Patterns and Relations

Outcome 1, first achievement indicator: "Extend a given pattern with and without concrete materials, and explain how each element differs from the preceding one."

Does this mean students are to explain the preceding element or the subsequent element?

WNCP Response: Students would have to consider both in order to explain the pattern.

Grade 6

5. Indicator 2 for 6SP1 says:

Determine whether a given set of data can be represented by a line graph (continuous data) or a series of points (discrete data), and explain why.

Sometimes we graph discrete data, but we want students to see that the points lie in a line. Is it acceptable to use a dotted or dashed line to connect the data points, simply to show that visual relationship?

WNCP Response: No, it is not acceptable to use a dotted or dashed line to connect the data points. This leads to confusion later when students try to differentiate between discrete and continuous data and how it should be displayed.