NOVA SCOTIA

Nova Scotia Assessment: Mathematics in Grade 8 Performance Levels

The following descriptors provide a general overview of students' mathematical behaviours at each level. These descriptors are more detailed than, though not essentially different from, the descriptors used on the Student Assessment Reports. These more detailed descriptors are intended to help teachers interpret the meaning of each level. Through classroom observation and assessment teachers can further identify individual strengths and areas of need.

Level 1 (below the expectation)

The student generally:

- is able to solve problems that are straightforward or where the method to solve the problem is suggested to the student
- is able to solve previously learned routine problems
- relies on a limited number of strategies to solve problems
- can perform operations involving easy to use numbers but may not understand when each operation should be used
- has difficulty understanding and using grade-level mathematical vocabulary
- will have success solving problems dealing with mathematical concepts from earlier years
- may be able to pictorially and concretely represent a concept, such as place value
- · can represent some operation concepts in symbolic form

Level 2 (approaching the expectation)

The student generally:

- is able, independently or with prompting, to solve some clearly described problems that require recall of information, recognition of simple patterns, and use of simple procedures
- · has success solving straightforward problems in familiar contexts
- relies on strategies such as trial and error rather than having a variety of strategies to choose from
- can perform basic operations $(+, -, x, \div)$ and usually understands when each operation should be used
- understands and uses some grade-level mathematical vocabulary but may confuse meanings and terms
- is able to pictorially, concretely, and contextually represent a concept, such as place value
- can interpret and represent some mathematical concepts in symbolic form

Level 3 (at the expectation)

The student generally:

- has success solving multi-step problems in unfamiliar contexts
- is able to choose appropriate strategies to solve problems
- judges the reasonableness of answers
- performs number operations using integers, fractions, and decimal numbers with confidence and ease, but may make minor errors
- understands and uses grade-level mathematical vocabulary
- is able to pictorially, concretely, contextually, and symbolically represent a concept, such as place value
- interprets and represents mathematical concepts using symbolic form at grade level

Level 4 (above the expectation)

The student generally:

- has success in problem solving situations and is able to solve novel and complex problems
- is consistent when choosing efficient strategies to solve problems
- judges the reasonableness of answers and can explain the solution
- performs number operations using integers, fractions and decimal numbers with confidence and ease
- is consistent when using grade-level mathematical terminology
- is consistently able to use all representations with ease to represent a concept, such as place value
- interprets and represents mathematical concepts using symbolic form with ease