Mathematics at Work 10

Foundational Outcomes

NOVA SCOTIA
NOUVELLE-ÉCOSSE

2020–2021

Website References

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Prepared by the Department of Education and Early Childhood Development

This is the most recent version of the current curriculum materials as used by teachers in Nova Scotia.

Outcomes Framework Mathematics at Work 10 (2020-2021)

In September 2020, teachers will be working hard to create a space that is safe and welcoming for all learners no matter the location of their "classroom". The first weeks will still be a time to establish a sense of community, engage learners in rich interactive experiences to promote critical thinking and create opportunities for collaboration and discussion. This is an opportune time to develop a culture and a climate for mathematics learning, conducive to collaboration, risk taking and inquiry.

The **Foundational Outcomes** identified in this document represent outcomes determined to be relevant for future learning in mathematics. Decisions about foundational outcomes were made in consultation with teachers, provincial mathematics team, Board and Regional Centre staff. The foundational outcomes are meant to guide teachers in making decisions about creating learning experiences that will prepare and engage their learners in a responsive way. However, a teacher's professional judgment remains the most important guide to effectively responding to the needs of their learners.

Colour coding has been used to identify outcomes and indicators as foundational (**green**), optional (**orange**) or non-foundational (**red**) for the 2020-2021 school year.

M01 Students will be expected to demonstrate an understanding of the International System of Units (SI) by: -describing the relationships of the units for length, area, volume, capacity, mass, and temperature -applying strategies to convert SI units to imperial units **Performance Indicators: all indicators**
M02 Students will be expected to demonstrate an understanding of the imperial system by -describing the relationships of the units for length, area, volume, capacity, mass, and temperature -comparing the American and British imperial units for capacity -applying strategies to convert imperial units to SI units **Performance Indicators: all indicators**
M03 Students will be expected to solve and verify problems that involve SI and imperial linear measurements, including decimal and fractional measurements. **Performance Indicators: all indicators**
M04 Students will be expected to solve problems that involve SI and imperial area measurements of regular, composite, and irregular 2-D shapes and 3-D objects, including decimal and fractional measurements, and verify the solutions. **Performance Indicators: all indicators**

G01 Students will be expected to analyze puzzles and games that involve spatial reasoning, using problem-solving strategies. **Performance Indicators: all indicators**
G02 Students will be expected to demonstrate an understanding of the Pythagorean theorem by identifying situations that involve right triangles, verifying the formula, applying the formula, and solving problems. **Performance Indicators: all indicators**
G03 Students will be expected to demonstrate an understanding of similarity of convex polygons, including regular and irregular polygons. **Performance Indicators: all indicators**
G04 Students will be expected to demonstrate an understanding of primary trigonometric ratios (sine, cosine, tangent) by applying similarity to right triangles, generalizing patterns from similar right triangles, applying the primary trigonometric ratios, and solving problems. **Performance Indicators: all indicators**
G05 Students will be expected to solve problems that involve parallel, perpendicular, and transversal lines, and pairs of angles formed between them. **Performance Indicators: all indicators**
G06 Students will be expected to demonstrate an understanding of angles, including acute, right, obtuse, straight, and reflex, by drawing, replicating and constructing, bisecting, and solving problems. **Performance Indicators: all indicators**
N01 Students will be expected to solve problems that involve unit pricing and currency exchange, using proportional reasoning. **Performance Indicators: all indicators**
N02 Students will be expected to demonstrate an understanding of income to calculate gross pay and net pay, including wages, salary, contracts, commissions, and Piecework. **Performance Indicators: all indicators**
A01 Students will be expected to solve problems that require the manipulation and application of formulas related to perimeter, area, the Pythagorean theorem, primary trigonometric ratios, and income.

Performance Indicators: **all indicators**