Division III Numeracy Descriptors

Purpose Students recognize how numeracy helps people to achieve personal and community goals, and make informed decisions	**Management of Space** Students intentionally judge and manage the space around or between bodies, objects or shapes with fluency (e.g., sports' play strategies).
Personal Insight Students recognize, reflect on and describe their numeracy strengths and challenges. They choose appropriate strategies to regulate* their learning.	**Measurement** Students identify, select and use suitable instruments to take measurements at an appropriate level of precision.
Task Analysis Students analyze situations that involve numeracy to identify relevant, irrelevant and unknown information and make appropriate assumptions when required.	**Units of Measurement** Students calculate measures using familiar referents*** and simple prescribed procedures, as appropriate for the task (e.g., Determine the amount of carpet needed by pacing out a room and calculating the area).
Magnitude Students interpret, compare and use quantities expressed as small and large numbers, fractions, decimals, rates, percentages, scales and ratios in real-life situations.	**Conversions** Students apply common and practical conversions between different systems of measurement in real-life situations (e.g., 250 mL is approximately 1 cup).
Using Numbers Students interpret and use negative numbers in real-life situations (e.g., account balances, sports statistics, economic indicators).	**Time** Students measure, represent and examine concepts of time used in different contexts (e.g., generations, decades, nanoseconds).
Calculations Students calculate using whole numbers, decimals, fractions and percentages in real-life situations	**Location and Direction** Students navigate, create and generate navigational aids using a variety of traditional, non-digital and digital techniques in familiar and unfamiliar contexts (e.g., landmarks, maps with legends, map features, GPS, mental maps).
Patterns and Relationships Students take multiple factors into consideration when identifying and describing relationships and trends encountered in real-life situations	**Interpretation and Representation of Quantitative Information** Students interpret, create and integrate different representations of quantitative information.
Organization of Data Students devise and interpret classification systems.	**Interpretation and Representation of Spatial Information** Students interpret and create labelled diagrams* and physical or digital models to represent movement, concepts or processes (e.g., atomic models, sport's play diagrams).

Collection of Data Students design a plan to collect, display and analyze data in an effective manner to test a hypothesis or explore a question	**Communication** Students identify and use precise terminology, gestures, symbols, objects and analogies to support decisions in real-life situations involving numeracy (e.g., 'the structure of an atom is like a solar system').
Interpretation of Data Students identify how information from a chart or graph could be misinterpreted or misleading (e.g., bias and sample size, misleading claims).	**Strategies** Students determine how the variables within a context may influence the choice of strategy and impact the end result (e.g., considering options when selecting a cellphone plan).
Probability Students use and interpret probability to make informed decisions in real-life situations.	**Estimation** Students apply approximations, overestimating or underestimating when a precise answer is not required in real-life situations.
Spatial Visualization Students visualize familiar and unfamiliar objects from different viewpoints by mentally manipulating them in space. They represent the objects through sketching** or other methods.	**Methods or Tools** Students use effective non-digital and digital methods or tools based on the demands of a task involving numeracy (e.g., pencil and paper, mental calculations, visualization, calculators, schedules, timetables, digital 3D modeling software).