

## Division IV Numeracy Descriptors

<p style="text-align: center;"><b>Purpose</b></p> <p>Students recognize how numeracy enables people to be effective in everyday life and in society.</p>	<p style="text-align: center;"><b>Management of Space</b></p> <p>Students intuitively judge and manage the space around or between bodies, objects or shapes with fluency and precision (e.g., choreography).</p>
<p style="text-align: center;"><b>Personal Insight</b></p> <p>Students recognize, reflect on, analyze and describe their numeracy strengths and challenges. They choose appropriate strategies to regulate their learning.</p>	<p style="text-align: center;"><b>Measurement</b></p> <p>Students identify, select and use precise instruments or methods to take accurate measurements.</p>
<p style="text-align: center;"><b>Task Analysis</b></p> <p>Students examine situations that involve numeracy and transfer their understanding from other contexts to assist them.</p>	<p style="text-align: center;"><b>Units of Measurement</b></p> <p>Students calculate measures using multi-step procedures to the degree of precision required for the task and compare results to familiar referents.</p>
<p style="text-align: center;"><b>Magnitude</b></p> <p>Students interpret, compare and use the magnitude of small and large numbers, fractions, decimals, rates, percentages, scales and ratios in real-life situations.</p>	<p style="text-align: center;"><b>Conversions</b></p> <p>Students apply practical conversions to determine implications for personal decision making (e.g., currency, time zones, distance).</p>
<p style="text-align: center;"><b>Using Numbers</b></p> <p>Students recognize how numbers can be used to inform or shape attitudes and beliefs in real-life situations (e.g., interpreting percentages).</p>	<p style="text-align: center;"><b>Time</b></p> <p>Students determine how time is measured, represented and perceived using different perspectives and in different contexts (e.g., cultural, geographical, historical, literary, scientific)</p>
<p style="text-align: center;"><b>Interpretation and Representation of Quantitative Information</b></p> <p>Students shift with ease and flexibility when working with different representations of quantitative information.</p>	<p style="text-align: center;"><b>Location and Direction</b></p> <p>Students select, use, create and generate navigational aids using a variety of traditional, non-digital and digital techniques in novel contexts (e.g., landmarks, maps with legends, map features, GPS, mental maps).</p>
<p style="text-align: center;"><b>Patterns and Relationships</b></p> <p>Students make predictions based on relationships and trends in real-life situations.</p>	<p style="text-align: center;"><b>Calculations</b></p> <p>Students calculate using whole numbers, fractions, decimals, rates, percentages, scales and ratios in real-life situations.</p>
<p style="text-align: center;"><b>Organization of Data</b></p> <p>Students devise and interpret multi-tiered classification systems.</p>	<p style="text-align: center;"><b>Collection of Data</b></p> <p>Students select effective data collection and display methods to make informed decisions.</p>
<p style="text-align: center;"><b>Interpretation and Representation of Spatial Information</b></p> <p>Students interpret and create labelled diagrams and physical or digital models to represent complex phenomena (e.g., cellular respiration processes, influence of geography on political events).</p>	<p style="text-align: center;"><b>Communication</b></p> <p>Students construct arguments supported by a variety of appropriate formats to justify assumptions, techniques, results and decisions in real-life situations involving numeracy.</p>

<p style="text-align: center;"><b>Interpretation of Data</b></p> <p>Students critically assess claims or arguments based on data or statistics to make an informed decision.</p>	<p style="text-align: center;"><b>Strategies</b></p> <p>Students analyze variables within a context to select strategies that result in an informed decision.</p>
<p style="text-align: center;"><b>Probability</b></p> <p>Students use their knowledge of probability to evaluate claims and predictions to make informed decisions in real-life situations (e.g., health benefits or risks)..</p>	<p style="text-align: center;"><b>Estimation</b></p> <p>Students apply approximations, overestimating or underestimating when a precise answer is not required in real-life situations.</p>
<p style="text-align: center;"><b>Spatial Visualization</b></p> <p>Students visualize, analyze and represent the relationship between two or more objects.</p>	<p style="text-align: center;"><b>Methods or Tools</b></p> <p>Students select and refine their use of efficient and 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, spreadsheets, digital 3D modeling software).</p>