BIG IDEAS

Proportional comparisons can be made among right triangles, using trigonometry.	Understanding **operations** helps when working with formulae and unit conversions.	Many **relationships** can be modelled and interpreted using graphs.	Varying the transversal allows us to notice **angle relationships**.	Analyzing simulations and **data** allows us to notice trends and relationships.

Learning Standards

Curricular Competencies	Content
Students are expected to be able to do the following: **Reasoning and analyzing** • Use **reasoning and logic** to analyze and apply mathematical ideas • **Estimate** reasonably • Demonstrate **fluent and flexible thinking** of number • Use tools or technology to analyze relationships and test conjectures • **Model** mathematics in contextualized experiences **Understanding and solving** • Develop, demonstrate, and apply **conceptual understanding** of mathematical ideas • **Visualize** to explore and illustrate mathematical concepts and relationships • Apply **flexible strategies** to solve problems in both abstract and contextualized situations • Engage in problem-solving **experiences** that are connected to place, story, cultural practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures **Communicating and representing** • Communicate mathematical thinking in **many ways** • Use mathematical vocabulary and language to contribute to mathematical **discussions** • **Represent** mathematical ideas in a variety of ways • Explain and justify mathematical ideas	*Students are expected to know the following:* • **puzzles and games** for computational fluency • create, interpret, and critique **graphs** • primary trigonometric ratios • metric and imperial measurement and **conversions** • solving problems involving **surface area and volume** • **angles** • **central tendency** • **experimental probability** • **financial literacy:** gross and net pay

Learning Standards (continued)

Curricular Competencies	Content
Connecting and reflecting • **Reflect** on mathematical thinking • Use mathematics to support personal choices • Connect mathematical concepts to each other and to **other areas and personal interests** • **Incorporate** First Peoples worldviews and perspectives to **make connections** to mathematical concepts	