



## 6<sup>th</sup> Grade Mathematics

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Willows Preparatory School 2018-19

### Subject Aims

- Develop confidence, perseverance and independence in mathematical and critical thinking and problem solving.
- Communicate confidently and clearly in a variety of contexts.
- Appreciate the contribution of mathematics in other areas and practice the application of it in the sciences, art, and design.
- Reflect critically and constructively on your work and the work of others.
- Nurture the skills and knowledge required for students to take their studies in mathematics beyond the MYP.

### Keys to Class

- **Haese Mathematics** – Our textbook is from the Haese Mathematics series. Sixth grade uses book 7, MYP 2.
- **OneNote** – All lessons, in-class warm-ups, resources, syllabus, homework, and assignment log are on OneNote and updated daily.
- **Homework** – Daily, short, homework assignments are used to complement classroom practice and encourage independent work.
- **Discussion and Participation** – A big component of learning will come from exposition, discussion and clarification in class, and team-building activities to engage students.

## I.B. Grading Criteria

<b>Objective A: Knowing and Understanding</b>	Are we able to apply a selection of methods, processes and techniques when solving a problem? Can we apply them to challenging and unfamiliar problems?
<b>Objective B: Investigating Patterns</b>	Can we recognize and generalize patterns and investigate their properties?
<b>Objective C: Communicating</b>	Can we use proper terminology, correct symbols, charts, and graphs to communicate our understanding to others?
<b>Objective D: Apply Mathematics in Context</b>	How do we identify what is relevant? Can we use our knowledge to apply?

## Content Brief

<b>Trimester 1</b>	<b>Trimester 2</b>	<b>Trimester 3</b>
Number System - Order of Operations with Exponents and Integers, Divisibility, Factors, Multiples, Prime and Composite Numbers, Roots  Algebraic Expressions – Writing and Operations with Algebraic Expressions  Algebraic Equations - Solving Two-Step and Multi-Step Equations	Coordinate Geometry- Cartesian Coordinates, Plotting Points, Graphing Straight Lines, Graphing Vertical and Horizontal Lines, Equation of a Straight Line,  Ratios, Rates, Direct and Inverse Proportions	Geometry - Points and Lines, Measuring and Classifying Angles, Angle Pairs, Parallel Lines, Geometric Constructions  Transformations, Symmetry, Polygons, Interior and Exterior Angles of a Polygon  Plane Figures, Area of Plane Figures, Solids, Nets of Solids, Surface Area and Volume of Solids

