Integrated Math Year 3 focuses on building skills in all four of the mathematics strands- Number, Algebra, Geometry, and Statistics and Probability. It will focus on building computation skills, problem solving strategies, improving communication with a mathematical focus, and reflecting upon the findings. The course will stress the essential role of mathematics within the school and in society: mathematics as a universal language, promoting analytical reasoning and problem-solving skills that contribute to the development of logical, abstract, and critical thinking. This course will help students view mathematics as a language of modeling and solving problems that arise in the real world.

2014 – 2015 Scope and Sequence: August-December
All Unit Dates are projected and may be subject to change.
You will be sent a January-May Scope and Sequence in January.

Unit 1: Appearances Can Be Deceiving August-October
Key concept: Form
Related concepts: Measurement and Space
Global context: Orientation in Space and Time (scale)
Statement of Inquiry: Measurement of the geometrical dimensions of an object reveals its shape, which can then be replicated in a scale model.

Inquiry questions:
Factual: How do you find the dimensions to create an accurate scale model?
Conceptual: Why would different forms of numbers be used in different situations? What is the purpose of creating a scale model?
Debatable: How can we understand complex information?

Content
- Know: integers, fractions, decimals, percents, significant figures, rates, ratios, proportions, scale drawings
- Understand: Conversions between mathematical forms make solving complex problems easier. Scale drawings and models are used to represent objects too big or too small to be drawn or built in actual size.
- Do: operations with integers and fractions; conversions between mathematical forms; determine significant figures; solve problems involving rates, ratios and proportions; construct scale drawings and models

Summative Assessment Task(s)
- Appearances Can Be Deceiving Unit Project (Criteria A and C)
- Unit 1 Exam (Criterion A)
Unit 2: Truth Be Told
October - November
Key concept: Logic Related concepts: Simplification and Representation
Global context: Fairness and Development (justice)
Statement of inquiry: The process of determining truth often requires logical reasoning which allows us to represent complex problems in a simplified way.
Inquiry questions:
  Factual: What does a negative exponent represent? When would it be used?
  Conceptual: What do variables represent in real life situations? What is considered a reliable source?
  Debatable: How do we know what is true?
Content
- Know: algebraic expressions and equations, exponents and indices rules, distributive property, expanding, factoring
- Understand: Like terms can be combined when simplifying algebraic expressions. The index laws are used to evaluate exponents, both positive and negative, correctly.
- Do: evaluate expressions; expand and factor algebraic expressions; apply exponent laws in order to simplify expressions
Summative Assessment Task(s)
- Investigation: Substitution (Criteria A, C)
- Investigation: Index Notation (Criterion B)
- Mock Trial “Who’s to blame?” (Criteria C, D)
- Unit 2 Exam (Criterion A)

Unit 3: Whose Garbage is it Anyway?
December - February
Key Concept: Relationships Related Concepts: Model, Equivalence
Global Context: Globalization and Sustainability (human impact of the environment)
Statement of Inquiry: Models created with equivalent equations can reveal relationships between human actions and environmental consequences.
Inquiry Questions:
  Factual: What is the difference between an expression and an equation? What does it mean to isolate a variable?
  Conceptual: Why is it important to find balance? How does the handling of garbage affect the world around us?
  Debatable: Does one person’s actions have a direct effect on the environment?
Content
- Know: equation, inverse, inequality, substitution, pronumerals, solve, solution
- Understand: Equations have one solution. Inequalities have one or more solutions. To solve word problems, one must analyze the written problem, translate it into a written equation, and then solve it.
- Do: solve one and multi-step equations and inequalities; translate written expression into numerical and algebraic expressions; substitute values into formulae
Summative Assessment Tasks
- Whose Garbage is it Anyway Unit Project (Criteria A, C, D)
- International Trash Presentation (Criteria C, D)
- Unit 3 Exam (Criterion A)
Mathematics Grading Criteria

<table>
<thead>
<tr>
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<th>Achievement Levels</th>
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<tbody>
<tr>
<td>A. Knowledge and Understanding</td>
<td>0-8</td>
</tr>
<tr>
<td>B. Investigating Patterns</td>
<td>0-8</td>
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<tr>
<td>C. Communicating</td>
<td>0-8</td>
</tr>
<tr>
<td>D. Applying Mathematics in Real Life Contexts</td>
<td>0-8</td>
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</tbody>
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Please refer to the MYP Parent Assessment Handbook for more information on MYP grading. You are also welcome to contact me, Vicki McNeill (HS Principal), Damian Rentoule (MS Principal), or Diane Smith (MYP Coordinator) with any questions about the MYP grading philosophy and practices.

Office hours in room 309:
I am available before school, D Day SEA block, and afterschool, depending upon scheduled faculty meetings. Students are encouraged to use study hall or lunch recess to receive extra learning support.