# IBMYP Subject Overview

**Subject Area: Math Course: Algebra I MYP Level: 2 & 3 Teacher(s)**: Wilcox .

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| **Time Frame (Dates)** | **Unit Title and Topic (\*=interdisciplina ry connection;**  **@=Action)** | **MYP Objectives** | **State Standards** | **Key Concept** | **Related Concepts** | **Global Context** | **Statement of Inquiry** | **MYP**  **Assessment Task**  **&**  **ATL Focus** | **MYP Criteria** | **Learner Profile Focus** |
| Sept- Oct | Order In the Court  (Integers, Fractions, Expressions, Pre- Algebra Prerequisites)  \* Arts | A.  Knowing and Understanding (Mid-Year Exam)  C  Communicating | A.1. A.2. | Relationship s  the connection s and association s between properties | Pattern, Representati on | Science and Technical Innovation - how humans use their understanding of scientific principles  Exploration: Products, processes and solutions. | Patterns represent relationshi ps between products, processes and solutions | Order of Ops Fashion Show  Mid-Year Exam  ATL  Communicati on, Social, Self Management | A.  Knowing and Understanding  C  Communication | Risk Takers |
| Oct- Dec | Balancing Act  (Equations and Inequalities) | A  Knowing and Understanding (Mid-Year Exam)  C.  Communicating D.  Applying math  in real world context | A.1, A.4 | Logic  principles used to build arguments and reach conclusions | Equivalence, justification, model | Scientific and technical innovation  Exploration:  Mathematical puzzles, principles and discoveries | Modeling justifies equivale nces by discovery and solving math | Write the equation of a word problem comparing money in the bank.  Fill in the blanks from the answer to  the equation: If Johnny | A.  Knowing and Understanding  C.  Communicating  D.  Applying math  in real world context | Balanced |

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|  |  |  |  |  |  |  | puzzles.. | works hours and Jimmy works  hours rhen they will each have  $ in the bank.  Mid-Year Exam  ATL  Critical Thinking |  |  |
| Dec- Jan | Step In Time  (Linear Equations)  \* Science | A. Knowing and  Understanding (Mid-Year Exam)  C  Communicating  D  Applying math in real world context | A.4, A5,  A.6, A.7 | FORM  the shape and underlying structure of an entity or piece of work | Measurement Model Justification Pattern | **Orientation in space and time**  Exploratio  n: Scale, duration, | Form models patterns when drawing to scale. | Students will research buildings, choose one and determine the slope of the line from the top of the building to where stairs would be.  They will determine the number of steps.  Mid-Year Exam  ATL  Social, Research | A.  Knowing and Understanding  C  Communicating  D  Applying math in real world context | Inquirer |
|  |  |  |  |  | frequency |  |  |
|  |  |  |  |  | and |  |  |
|  |  |  |  |  | variability |  |  |

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| Jan- Feb | Systematic  (Systems of Equations) | B  Investigating Patterns  C  Communication | A.4, A.5 A.9 | Relationsh ips- affecting large networks and systems | Representatio n, system, equivalence | Personal and cultural expression  Exploration:  Artistry, craft, creation, beauty | Represen ting systems shows equivale nce by exploring relations hips and art. | Draw systems and make a stained glass window, organize similar equations and find solutions  ATL  Literacy Skills | C  Communicating | Knowled geable |
| Feb- March | The Power of Powers  (Polynomial computation) | B.  Investigating Patterns  C  Communicating | A.2 | Relationshi ps, Logic | Patterns Model | Orientation in time and space because they will explore relationships between, and interconnecte dness of global perspectives.  Exploration  : Natural and human landscapes and resources | Patterns represent relationshi ps that connect to nature and human resources. | A power point display showing examples of patterns either in nature or man made with an explanation of if they are a benefit or hindrance to our world Students will present their power point to the class.  ATL  Self- management, communicati  on | B.  Investigating patterns  C  Communicating | Open Minded |

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| April- May | Little by Little (Factoring) | B  Investigating Patterns | A.2  A.4 | FORM- its organi zation, essenti al nature and extern al appear ance. | Change Equivalence | Personal and cultural expression  Students will explore the ways in which we discover and express ideas, , extend and enjoy our creativity; our appreciation of the aesthetic.. | Creativity expressed in simplest form exhibits equivalenc e form. | Students will be given a factoring problem and must break it down to all prime factors and then create their own example, not math related that expresses breaking down to simplest form.  ATL  Communicate  , organize, research | B  Investigating Patterns | Thinker |

Support of Personal Project:

Students reflect on their achievement and make changes to maximize success. They must have excellent management and organizational skills. Students are encouraged to be advocates for themselves and prepare projects within the designated time frame.