

WHS Subject –Group Overview

Subject: Math- Common Core Algebra 1

Year: 4

Unit Title	Key Concept	Related Concept (s)	Global Context	Statement of Inquiry	MYP Subject-group objectives	ATL Skills	Content (topics, knowledge, skills)
Unit 1 Moving Forward	Form	Generalization Model Pattern Representation	Scientific and technical innovation	Patterns can be formed by creating a model that represents the situation	Investigation-Zombie Problem (Criterion B) (students use pattern problem to determine how long it takes for the SLC to be infected)	Critical thinking skills	Find a pattern using a table, graph, rule, or situation. Explain how a pattern is growing using multiple representations.
Unit 2 Making Choices	Relationships	Justification model systems	Identities and relationships	Understanding the situation will help you make the best choices	Test-Parade Problem (Criterion D) Students look at different floats and explain the path of the float and create a model to represent the float. Investigation-The Boomerang Problem (Criterion C) Students will use multiple representations to choose the best method to maximize	Critical thinking skills, organizational skills, Reflection skills	Explain the solution of a system of linear equations. Solve a system of linear equations using multiple representations such as graphing or algebraically.

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					the profit of Boomerang Sales.		
Unit 3 Making Predictions	Logic	Justification Model Generalization	Fairness & Development	Fluctuation in the environment will affect the final outcome	Students will know mean, median and mode. Students will use line of best fit to make predictions and choices. (Criterion A and C)	Critical Thinking Transfer	Find mean, median and mode. Use data to create a scatter and find the line of best fit. Understand outliers and the effects they have on the data Understand the idea of trends
Unit 4 Life's a Balancing Act	Change	Change Equivalence Justification	Fairness & Development	Equivalence is needed to maintain balance.	Students will be able to make predictions based on the table, graph, or equation. They will create a rule for a given sequence. (Criterion A and B)	Communication Organization Transfer	Predicting the next term in a table Finding a general rule Comparing exponential to linear functions Understanding the idea of a multiplier
Unit 5 Think Big, Start Small	Creativity	Equivalence Justification Model	Scientific and technical innovation	Changes in price of a good or service change the consumption	Students will be able to solve a quadratic using multiple representations and interpret the meaning of the special points. (Criterion C and D)	Communication	Understanding vertex in the context of the problem Solving quadratics Interpreting intercepts

WHS Subject –Group Overview

Subject: Math- Common Core Geometry

Year: 4/5

Unit Title	Key Concept	Related Concept (s)	Global Context	Statement of Inquiry	MYP Subject-group objectives	ATL Skills	Content (topics, knowledge, skills)
Geometry Unit #1 Shapes & Transformations	Change	Mathematics Measurement Pattern	Personal and cultural expression	Since the beginning of civilization people have expressed their cultural beliefs and identities through art and geometrical design.	A: Knowing and understanding B. Investigating patterns	Communication skills	Transformations, reflections, rotations, translations, solve algebraic equations,
Geometry Unit#2 Justification & Similarity	Form	Justification Measurement	Globalization and sustainability	Form is the shape and underlying structure of an entity or piece of work.	C: Communicating D: Applying mathematics in real-life contexts	Communication Collaboration	Similar shapes, proofs of similar triangles, dilations, solving proportions
Geometry Unit 3: Trigonometry tools to solve triangles.	Relationships	Mathematics Justification Model Representation	Scientific and technical innovation	Representing the natural world is possible by understanding the relationship of parts to a whole with models.	D: Applying mathematics in real-life contexts C: Communicating	Critical thinking skills	Right triangle trigonometry, solve triangles, and inverse trig functions

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Unit#4 Congruent triangles, proofs and quadrilaterals	Logic	Mathematics Generalization Justification	Fairness and development	Logic influences the decisions we make.	B. Investigating patterns A: Knowing and understanding	Organization skills	Proofs of congruent triangles, and properties of quadrilaterals

WHS Subject –Group Overview

Subject: Math- Common Core Algebra 2

Year: 5

Unit Title	Key Concept	Related Concept (s)	Global Context	Statement of Inquiry	MYP Subject-group objectives	ATL Skills	Content (topics, knowledge, skills)
Investigations and Functions	Relationships	Representations	Scientific and Technical Innovation	Machines that are designed to meet an individual's requirements can increase their abilities to function within the world.	A D	Communication	<ul style="list-style-type: none"> ● Functions ● Domain and Range ● Function Investigation Questions ● Recognizing Linear Relationships ● Linear Equations ● Solving a Quadratic Equation ● Triangle Trigonometry ● Graphs With Asymptotes
Transformations of Parent Graphs	Form	Pattern.	Orientation in Space and Time	An intricate mathematical puzzle can stem from the most basic principles that can influence the way ideas develop and new discoveries are made.	B C	Social (collaboration skills)	<ul style="list-style-type: none"> ● Forms of a Quadratic Function ● How to use (h, k) ● Reflections and Even Functions ● Transform Any Function ● Exponential Functions ● Forms of Quadratics ● Finding Graphing Form and Vertex of Parabolas ● Point-Slope Equations for Lines ● General Equations for Families ● Even and Odd Functions

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Unit Title	Key Concept	Related Concept (s)	Global Context	Statement of Inquiry	MYP Subject-group objectives	ATL Skills	Content (topics, knowledge, skills)
Equivalent Forms	Change	Equivalence Simplification	Personal and Cultural Expression	The consequences of change can often lead to unpredictable, yet interesting, results.	A D	Thinking	<ul style="list-style-type: none"> ● Equivalent Expressions ● Simplifying Rational Expressions ● Multiplying and Dividing Rational Expressions ● Adding and Subtracting Rational Expressions ● Vocabulary for Expressions ● Rewriting Rational Expressions ● Adding and Subtracting Rational Expressions
Solving and Intersections	Logic	Equivalence, Model, Justification.	Identities and Relationships	Communities can have many different perspectives that influence the way logical ideas develop and how efficiently they conduct business.	B C	Communication	<ul style="list-style-type: none"> ● Strategies for Solving Equations ● The Meaning of a Solution ● Finding Solutions to Systems ● Inequalities with Absolute Value ● Graphing Inequalities with Two Variables <p>Solutions to One- and Two-Variable Equations</p>