Dominican International School Kaohsiung

Course Syllabus

Subject: Algebra 1   **Grade:**   8   **SY:** 2022-2023

Teacher: Mr. Bah   **Email:** mbah@disk.kh.edu.tw

Course Description:

Welcome to our Algebra class. The primary goal of this course is for the student to actively engage themselves in a positive learning experience in which there is increased appreciation and understanding of mathematics in the world. It is my hope that students will find joy and success in solving problems and grow as learners and participants within our classroom community. To reach these goals the course curriculum is structured around the Common Core Standards through our Algebra textbook

In order for us to accomplish our mathematics and personal goals please make note of the following guidelines:

Course Requirements:
- The course will be conducted through lectures, discussions, practice material, projects, and student presentations. Students are strongly encouraged to raise questions and make comments in class. Participation is the key to success.
- Assignment books are available to each student. If there is difficulty in completing the assignments, the teacher must be notified before class the next day.
- Students are encouraged to communicate concerns to teachers and ask for help as needed throughout the school year.
- Students are expected to organize their own class materials and to keep their work neat and tidy. Parents are encouraged to help students by labeling personal items with identification stickers with the student's name in English.
- Students will observe all school policies as outlined in the DISK Handbook. This includes arriving to class on time, abiding by the dress code and speaking only English on the school grounds.
- Students will observe all school policies on Academic Honesty, as outlined in the DISK Handbook. All cases of academic misconduct (such as cheating on tests or plagiarism) will automatically result in a "Fail" grade for the assignment, in addition to any sanctions that may be imposed by the School Discipline office.

Textbook:
Big Ideas Math Algebra 1 Ron Larson Laurie Boswell Common Core Students Edition 2015 1st Edition.

Homework Policy:
All assignments should be submitted on time through google classroom or turn in hard copy depending on teacher's discretion. Student(s) who are unable to submit their assignment due to unforeseen circumstances should communicate to the teacher a day before the due date for submission. Without a valid reason for late submission, student(s) marks are deducted. After the third day, homework will no longer be accepted, and the grade will be recorded as a zero for that individual.

Test Policy:
All tests must be taken home and signed by a parent or guardian the day it is graded and handed back to the student. The student has until the next morning at 8:05am to make relevant corrections and resubmit the test for make-up points. If a student identifies an error in grading, it must be presented by this time. The maximum amount of points earned back will be 50% of the points initially deducted. The amount of points earned back on each question will be at the discretion of the instructor, but will be based on *work shown*, a *correct answer*, and an *explanation of why it was wrong*.

Attendance Policy:
Students must be in the classroom by the time the bell rings or will be counted 'tardy.' If a student is absent, please consult the blog for missed assignments. Missed assignments can be turned in one day late for each day absent.

Classroom Rules and Expectations:
1. Come to class on time and be prepared.
2. Be responsible and show interest in learning the course.
3. Be a good communicator and discuss your difficult areas with the teacher. Doing this will help the teacher to devise mechanisms of helping you.
4. Use the backdoor should you come to the class late
5. No laptop or cellphone in the classroom. Math is better understood through practice.
6. Come with only your textbook, calculator, set box and work book.
7. Be prepared to learn through practice.
8. Participate in class discussions, projects, and classwork.
9. Respect yourself, your peers, and the class and school rules.
10. Be careful with school property and the property of others.
11. No food or drinks except for water bottles.
12. All students are expected to write down examples given by the teacher on the whiteboard. Note taking is important for your exam preparations.
13. All class exercises and homework are to be completed within the stipulated time.Late submission will result in marks deduction.

Class Materials Required:

1. Set box (0ptional)
2. Scientific calculator **(No calculator during Exam)**
3. Pencil and Pen
4. Eraser
5. Notebook
6. Color Pencils
7. Scissors
8. Glue
9. Textbook

Assessment:

30% - Quarterly Exam/Assessment

30% - Unit Tests, Minor & Major Projects, Portfolios.

30% - Class Participation & Seatwork, Homework

10% - Deportment and Behavior

QUARTERLY PACING GUIDE

❖ The syllabus is a live document and may change without notice

QUARTER 1	Unit and Lesson Targets
W1	**CHAPTER 1 SOLVING LINEAR FUNCTIONS** *1.1 - Solving simple equations* *1.2 - Solving multi-step equations* *1.3 - Modeling quantities* *1.4 - Accuracy with measurements*
W2	*1.5 -Solving equations with variables on both sides* *1.6 - Solving absolute value equations* *1.6 - Rewriting equations and formulas* *End of* **Chapter 1** *Quiz Week*
W3	**CHAPTER 2 SOLVING LINEAR INEQUALITIES** *2.1 - Writing and graphing inequalities* *2.2 - Solving Inequalities using addition and subtraction* *2.3 -Solving inequalities using multiplication and division*
W4	*2.4 - Solving Multi Steps inequalities* *2.5 - Solving compound inequalities* *2.6 - Solving absolute value inequalities* *End of* **Chapter 2** *Quiz Week*
W5	**CHAPTER 3 GRAPHING LINEAR FUNCTIONS** *3.1 - Functions*

	3.2 - Characteristics of functions *3.3 - Linear Functions* *3.4 - Functions notation*	
W6	*3.5 - Graphing linear equations in standard form* *3.6 - Graphing linear equations in slope-intercept form* *3.7 - Transformation of linear functions*	
W7	*Quarter 1 Review and Exam Prep.*	
W8	*Quarter 1 Exam Week*	
W9	*Exam corrections / End Semester Activities*	

QUARTER 2		*Unit and Lesson Targets*
W1	*Week 10*	*Welcome students!* ***CHAPTER 4 WRITING LINEAR FUNCTIONS*** *4.1 - writing equations in slope-intercept form* *4.2 - Writing equations in point-slope form* *4.3 - Writing equations of parallel and perpendicular lines* *4.4 - Scatter plots and lines of fit*
W2	*Week 11*	*4.5 - Analyzing lines of fit* *4.6 - Arithmetic sequences* *4.7 - Piecewise functions*
W3	*Week 12*	***CHAPTER 5 SOLVING SYSTEM OF LINEAR EQUATION*** *5.1 - Solving systems of linear equation by graphing* *5.2 - Solving systems of linear equation by substitution* *5.3 - Solving systems of linear equation by elimination* *5.4 - Solving special systems of linear equations*
W4	*Week 13*	*5.5 - Solving equations by graphing* *5.6 - Graphing linear inequalities in two variables* *5.7 - System of linear inequalities*
W5	*Week 14*	*5.5 - Solving equations by graphing* *5.6 - Graphing linear inequalities in two variables* *5.7 - System of linear inequalities*
W6	*Week 15*	***CHAPTER 6 EXPONENTIAL FUNCTIONS AND SEQUENCES*** *6.1 - Properties of exponents* *6.2 - Radical and rational exponents* *6.3 - Exponential functions*

		6.4 - *Exponential growth and decay*
W7	*Week 16*	6.5 - *Solving exponential equations* 6.6 - *Geometric sequences* 6.7 - *Recursively defined sequences*
W8	*Week 17*	**REVIEW Q2**
W9	*Week 18*	**REVIEW Q2**
W10	*Week 19*	*Exam corrections / End Semester Activities*

QUARTER 3		**Unit and Lesson Targets**
W1	*Week 20*	**CHAPTER 7 POLYNOMIAL EQUATION** 7.1 - *Adding and subtracting polynomials* 7.2 - *Multiplying and dividing polynomials* 7.3 - *Special products of polynomials* 7.4 - *Solving polynomial equations in factored form*
W2	*Week 21*	7.5 - *Factoring $x^2 + bx + c$* 7.6 - *Factoring $ax^2 + bx + c$* 7.7 *Factoring special products* 7.8 *Factoring polynomials completely*
W3	*Week 22*	**CHAPTER 8 GRAPHING QUADRATIC FUNCTIONS** 8.1 - *Graphing $f(x) = ax^2$* 8.2 - *Graphing $f(x) = ax^2 + C$* 8.3 - *Graphing $f(x) = ax^2 + bx + C$* 8.4 - *Graphing $f(x) = a(x-h)^2 + K$*
W4	*Week 23*	8.5 - *Using intercept form* 8.6 - *Comparing linear, exponential, and quadratic functions* 8.6 - *Permutation and Combination* 8.7 - *Binomial Distribution*
W5	*Week 24*	**CHAPTER 9 SOLVING QUADRATIC EQUATIONS** 9.1 - *Properties of radical* 9.2 - *Solving quadratics equations by graphing*

		9.3 - Solving quadratic equation using square root
W6	Week 25	9.4 - Solving quadratic equation by completing squares 9.5 - Solving quadratic equation by using the quadratic formula 9.6 - Solving nonlinear systems of equations
W7	Week 26	Q2 Review
W8	Week 27	Q2 Review
W9	Week 28	Quarter 3 Exam
W10	Week 29	Exam corrections / ITBS Practice

QUARTER 4		Unit and Lesson Targets
W1	Week 30	ITBS Testing
W2	Week 31	**CHAPTER 10 RADICAL FUNCTIONS AND EQUATIONS** 10.1 - Graphing square root functions 10.2 - Graphing cube root functions - **Review & provide supplementary exercises**
W3	Week 32	10.3 - Solving radical equations 10.4 - Inverse of a function - **Review & provide supplementary exercises**
W4	Week 33	**CHAPTER 10 DATA ANALYSIS AND DISPLAYS** 11.1 - Measure of center and variation 11.2 - Box-and-Whisker plots 11.3 - Shapes of distribution 11.4 - Two way tables 11.5 - Choosing a data display
W5	Week 34	11.3 - Shapes of distribution 11.4 - Two way tables 11.5 - Choosing a data display
W6	Week 35	Quarter 4 Review
W7	Week 36	Quarter 4 Review
W8	Week	Quarter 4 Exam

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W9	Week 38	*End School Year Activities / Graduation*