Dominican International School

SUBJECT: GEOMETRY

GRADE LEVEL: 9 **SCHOOL YEAR: 2022-23**

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COURSE DESCRIPTION:

Grade 9 Geometry is the requisite for the future high school math courses. The US Common Core State Standards (CCSS) defines the curriculum framework of the Grade 9 math. In this course students will be able to learn about transformation and congruence, prove geometric theorems, and make constructions. Understand similarity and prove theorems involving similarity. Use Trigonometry with right triangles. Use theorem about circles, find arc lengths and areas of sectors. Translate between the geometry description and the equation for a conic section. Use co-ordinates to prove simple geometry theorems algebraically. Understand and use volume formulas. Relate two-dimensional and three- dimensional objects. Apply geometric concepts in modelling situations. Use probability and conditional probability to evaluate outcomes of decisions and find probabilities of compound events.
http://www.corestandards.org/Math/
In addition, the curriculum and learning strategies align to the Dominican International School's School Learning Outcomes (SLOs) which are Truthful, Organized, Reflective, Courageous, and Helpful (TORCH). The best practices of the student-centered learning are employed with collaboration, problem-based learning, technology integration, discussion, and more for the broader goal of lifelong learning and problem-solving. The Mathematical Practice (MP) expected from the students is defined by the CCSS as: MP.1 Make sense of problems and persevere in solving them, MP.2 Reason abstractly and quantitatively, MP.3 Construct viable arguments and critique the reasoning of others, MP.4 Model with mathematics, MP.5 Use appropriate tools strategically, MP.6 Attend to precision, MP.7 Look for and make use of structure, and MP.8 Look for and express regularity in repeated reasoning. Additional topics or lessons such as Algebra reviews, application projects, real-world issues, or more may be included depending on the timing, pacing, and the availability of the class.

COURSE OBJECTIVES:

The course objectives are defined in the Common Core State Standard (CCSS) high school domains: Number and Quantity, Geometry, and Statistics & Probability. The CCSS domains are detailed as the following:

Domain N-Q.A.1: NUMBER AND QUANTITY

Reason quantitatively and use units to solve problems.

CCSS.MATH.CONTENT.HSN. Q.A.1

Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

Domain G-CO: GEOMETRY-CONGRUENCE

Experiment with transformations in the plane

CCSS.MATH.CONTENT.HSG.CO. A.1

Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.

CCSS.MATH.CONTENT.HSG.CO. A.2

Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (e.g., translation versus horizontal stretch).

CCSS.MATH.CONTENT.HSG.CO. A.3

Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself.

CCSS.MATH.CONTENT.HSG.CO. A.4
Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.
CCSS.MATH.CONTENT.HSG.CO. A.5
Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another.

Understand congruence in terms of rigid motions

CCSS.MATH.CONTENT.HSG.CO. B.6
Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent.
CCSS.MATH.CONTENT.HSG.CO. B.7
Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.
CCSS.MATH.CONTENT.HSG.CO. B.8
Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.

Prove geometric theorems

CCSS.MATH.CONTENT.HSG.CO. C.9
Prove theorems about lines and angles. *Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints*.
CCSS.MATH.CONTENT.HSG.CO. C.10
Prove theorems about triangles. *Theorems include: measures of interior angles of a triangle sum to 180°; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point*.
CCSS.MATH.CONTENT.HSG.CO. C.11
Prove theorems about parallelograms. *Theorems include: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals*.

Make geometric constructions

CCSS.MATH.CONTENT.HSG.CO. D.12
Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). *Copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line*.
CCSS.MATH.CONTENT.HSG.CO. D.13
Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.

Domain G-SRT: GEOMETRY-SIMILARITY, RIGHT TRIANGLES, AND TRIGONOMETRY

Understand similarity in terms of similarity transformations

CCSS.MATH.CONTENT.HSG.SRT. A.1
Verify experimentally the properties of dilations given by a center and a scale factor:
CCSS.MATH.CONTENT.HSG.SRT. A.1.A
A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged.
CCSS.MATH.CONTENT.HSG.SRT. A.1.B
The dilation of a line segment is longer or shorter in the ratio given by the scale factor.
CCSS.MATH.CONTENT.HSG.SRT. A.2
Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides.
CCSS.MATH.CONTENT.HSG.SRT. A.3
Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar.

Prove theorems involving similarity

CCSS.MATH.CONTENT.HSG.SRT. B.4
Prove theorems about triangles. *Theorems include: a line parallel to one side of a triangle divides the other two proportionally, and conversely; the Pythagorean Theorem proved using triangle similarity.* *CCSS.MATH.CONTENT.HSG.SRT. B.5*
Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.

Define trigonometric ratios and solve problems involving right triangles

CCSS.MATH.CONTENT.HSG.SRT. C.6
Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles.
CCSS.MATH.CONTENT.HSG.SRT. C.7
Explain and use the relationship between the sine and cosine of complementary angles.
CCSS.MATH.CONTENT.HSG.SRT. C.8
Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems. *

Apply trigonometry to general triangles

CCSS.MATH.CONTENT.HSG.SRT. D.9
(+) Derive the formula $A = 1/2\ ab \sin(C)$ for the area of a triangle by drawing an auxiliary line from a vertex perpendicular to the opposite side.
CCSS.MATH.CONTENT.HSG.SRT. D.10
(+) Prove the Laws of Sines and Cosines and use them to solve problems.
CCSS.MATH.CONTENT.HSG.SRT. D.11
(+) Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems, resultant forces).

Domain G-C: GEOMETRY-CIRCLES

Understand and apply theorems about circles

CCSS.MATH.CONTENT.HSG. C.A.1

Prove that all circles are similar.

CCSS.MATH.CONTENT.HSG. C.A.2

Identify and describe relationships among inscribed angles, radii, and chords. *Include the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.*

CCSS.MATH.CONTENT.HSG. C.A.3

Construct the inscribed and circumscribed circles of a triangle, and prove properties of angles for a quadrilateral inscribed in a circle.

CCSS.MATH.CONTENT.HSG. C.A.4

(+) Construct a tangent line from a point outside a given circle to the circle.

Find arc lengths and areas of sectors of circles

CCSS.MATH.CONTENT.HSG. C.B.5

Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector.

Domain G-GPE: GEOMETRY-GEOMETRIC PROPERTIES WITH EQUATIONS

Translate between the geometric description and the equation for a conic section

CCSS.MATH.CONTENT.HSG.GPE. A.1

Derive the equation of a circle of given center and radius using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation.

CCSS.MATH.CONTENT.HSG.GPE. A.2

Derive the equation of a parabola given a focus and directrix.

CCSS.MATH.CONTENT.HSG.GPE. A.3

(+) Derive the equations of ellipses and hyperbolas given the foci, using the fact that the sum or difference of distances from the foci is constant.

Use coordinates to prove simple geometric theorems algebraically

CCSS.MATH.CONTENT.HSG.GPE. B.4

Use coordinates to prove simple geometric theorems algebraically. *For example, prove or disprove that a figure defined by four given points in the coordinate plane is a rectangle; prove or disprove that the point (1, √3) lies on the circle centered at the origin and containing the point (0, 2).*

CCSS.MATH.CONTENT.HSG.GPE. B.5

Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).

CCSS.MATH.CONTENT.HSG.GPE. B.6

Find the point on a directed line segment between two given points that partitions the segment in a given ratio.

CCSS.MATH.CONTENT.HSG.GPE. B.7

Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula. *

Domain G-GMD: GEOMETRY-GEOMETRIC MEASUREMENT AND DIMENSION

Explain volume formulas and use them to solve problems

CCSS.MATH.CONTENT.HSG.GMD. A.1

Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. *Use dissection arguments, Cavalieri's principle, and informal limit arguments*.

CCSS.MATH.CONTENT.HSG.GMD. A.2

(+) Give an informal argument using Cavalieri's principle for the formulas for the volume of a sphere and other solid figures.

CCSS.MATH.CONTENT.HSG.GMD. A.3

Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems. *

Visualize relationships between two-dimensional and three-dimensional objects

CCSS.MATH.CONTENT.HSG.GMD. B.4

Identify the shapes of two-dimensional cross-sections of three-dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects.

Domain G-GMD: GEOMETRY-MODELING WITH GEOMETRY

Apply geometric concepts in modeling situations

CCSS.MATH.CONTENT.HSG.MG. A.1

Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).*

CCSS.MATH.CONTENT.HSG.MG. A.2

Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot). *

CCSS.MATH.CONTENT.HSG.MG. A.3

Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios). *

Domain S-CP: STATISTICS & PROBABILITY-CONDITIONAL PROBABILITY AND THE RULES OF PROBABILITY

Understand independence and conditional probability and use them to interpret data

CCSS.MATH.CONTENT.HSS.CP. A.1

Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events ("or," "and," "not").

CCSS.MATH.CONTENT.HSS.CP. A.2

Understand that two events *A* and *B* are independent if the probability of *A* and *B* occurring together is the product of their probabilities, and use this characterization to determine if they are independent.

Domain S-CP: STATISTICS & PROBABILITY-CONDITIONAL PROBABILITY AND THE RULES OF PROBABILITY

CCSS.MATH.CONTENT.HSS.CP. A.3

Understand the conditional probability of *A* given *B* as *P* (*A* and *B*)/*P*(*B*), and interpret independence of *A* and *B* as saying that the conditional probability of *A* given *B* is the same as the probability of *A*, and the conditional probability of *B* given *A* is the same as the probability of *B*.

CCSS.MATH.CONTENT.HSS.CP. A.4

Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified. Use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities. *For example, collect data from a random sample of students in your school on their favorite subject among math, science, and English. Estimate the probability that a randomly selected student from your school will favor science given that the student is in tenth grade. Do the same for other subjects and compare the results.*

CCSS.MATH.CONTENT.HSS.CP. A.5

Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. *For example, compare the chance of having lung cancer if you are a smoker with the chance of being a smoker if you have lung cancer.*

Use the rules of probability to compute probabilities of compound events.

CCSS.MATH.CONTENT.HSS.CP. B.6

Find the conditional probability of *A* given *B* as the fraction of *B*'s outcomes that also belong to *A*, and interpret the answer in terms of the model.

CCSS.MATH.CONTENT.HSS.CP. B.7

Apply the Addition Rule, P (A or B) = P(A) + P(B) - P (A and B), and interpret the answer in terms of the model.

CCSS.MATH.CONTENT.HSS.CP. B.8

(+) Apply the general Multiplication Rule in a uniform probability model, P (A and B) = P(A)P(B|A) = P(B)P(A|B), and interpret the answer in terms of the model.

CCSS.MATH.CONTENT.HSS.CP. B.9

(+) Use permutations and combinations to compute probabilities of compound events and solve problems.

Domain S-CP: STATISTICS & PROBABILITY-USING PROBABILITY TO MAKE DECISIONS

Use probability to evaluate outcomes of decisions

CCSS.MATH.CONTENT.HSS.MD. B.6

(+) Use probabilities to make fair decisions (e.g., drawing by lots, using a random number generator).

CCSS.MATH.CONTENT.HSS.MD. B.7

(+) Analyze decisions and strategies using probability concepts (e.g., product testing, medical testing, pulling a hockey goalie at the end of a game).

PRIMARY TEXTBOOK & OTHER RESOURCES:

Ron Larson and Laurie Boswell, GEOMETRY — Common Core (Big Ideas Learning, 2022)
Ron Larson and Laurie Boswell, Geometry – Resources by chapter
Ron Larson and Laurie Boswell, Geometry – Assessment Book
Ron Larson and Laurie Boswell, Geometry – Practice workbook and Test Preparation
www.bigideasmath.com

ASSESSMENT:

Tests and Quarterly Exams are announced in advance. Pop Quizzes are unannounced and can be given at any time during the class so the students must come to class prepared. ALL Tests, Exams and Quizzes are cumulative so students are responsible for staying current and prepared of the previous scopes and lessons learned.

Homeworks/Classworks/Seatworks are graded based on completion and completing by the due dates. Students are responsible for checking the assignments' due dates posted on Google Classroom. Students are expected to be prepared to turn-in any work by the due date class time even if the Teacher did not collect the work at the due date. Actual work turn-in may be after the original due date, in which any incomplete work is well late. Any Missing, Incomplete or Late works are counted with 10% or more penalty with due dates as posted on the Google Classroom. Students MUST submit "Mark as Done" in Google Classroom for each assignments posted. Not submitting "Done" count as Incomplete with 10% penalty. Additional 10% are penalized for each day for late turn-in work. Actual work turn-in may be after the original due date, in which any incomplete work is well late. No late work is accepted 3 days after the due dates posted. Students who are absent are responsible for keeping up with the class by doing the work as assigned on Google Classroom.

Students who miss the scheduled Test or Quarterly Exam must make-up the exam on return at the earliest. If the student does not make-up the exam at the earliest on return, then penalty may be deducted from the exam score. The make-up test/exam may be different and more challenging than the originally scheduled test/exam. The student grades are assigned as the following:

1. Tests and Pop Quizzes	30%
2. Homework/Classwork/Seatwork /Projects	30%
3. Quarterly Exam	30%
4. Deportment	10%
Total Grade	100%

ADDITIONAL INFORMATION:

Students are required to check the school's Gmail and Google Classroom site regularly for assignments and announcements. Regular correspondences are conducted with the school's Gmail.

Students are required to come to class prepared with at least the standard school supplies:

- Notebook/Paper/Folder (need to be able to separate the assigned papers to turn-in) Ruler
- Protractor
- Compass
- Blue/black pen or pencil (only pens are allowed during tests)
- Red pen for marking
- Home online access to the Google Classroom and other online tools

Ti-*n*spire CX (non-CAS) calculator (required in the Third and Fourth Quarter)

Other resources may be required only if instructed.

Please see Google Classroom for more information.

Schedule of Instruction may be changed due to timing, pacing or availability of the class.

Copying (plagiarism) is a serious offense and a form of theft. In certain cases, it is also a criminal offense. It is defined as taking words, phrasing, sentence structure, or any other element of the expression of another person's ideas, and using them as if they were your own. Plagiarism is a violation of another person's rights, whether the material stolen is great or small – it is not a matter of degree or intent. Plagiarism has serious consequences.

Any act of plagiarism will result in an automatic zero on the entire assignment

(NB: Depending on time and interest, the teacher may delete and/or add other selections.)

Week / Date	Topic / Projects / Assessments
Week 1 **Aug 10th to 12th** **3 Days of Class** *10~ First Day / Orientation Day*	1-1 Points, Lines, and Planes 1-2 Measuring and Constructing Segments Weekly Test
Week 2 **Aug 15th to 19th** *Opening Mass*	1-3 Using Midpoint and Distance Formulas 1-4 Perimeter and Area in the Coordinate Plane 1-5 Measuring and Constructing Angles Weekly Test
Week 3 **Aug 22nd to 26th**	1-6 Describing Pairs of Angles 2-1 Conditional Statements 2-2 Inductive and Deductive Reasoning Weekly Test
Week 4 **Aug 29th to Sep 2nd**	2-3 Postulates and Diagrams 2-4 Algebraic Reasoning 2-5 Proving Statement About Segment and Angles Weekly Test
Week 5 **Sep 5th to 9th** **4 Days of Class** *8~ Mass &Birthday Mother Mary* *9th – Moon Festival*	2-6 Proving Geometric Relationships 3-1 Pairs of Lines and Angles Weekly Test

Week 6 **Sep 12th to 16th** FYI – Pre-Exam Days	3-2 Parallel Lines and Transversals 3-3 Proofs with Parallel Lines Weekly Test
Week 7 **Sep 19th to 23rd**	3-4 Proof with Perpendicular Lines 3-5 Equations of Parallel and Perpendicular Lines Weekly Test
Week 8 **Sep 26th to 30th** **2 Days of Class** *28-30 ~Teacher's Conference*	Quarter 1 Exam Review
Week 9 **Oct 3rd to 7th** **3 Days of Class** *6-7 ~Q1 Exams*	Quarter 1 Exam

2nd QUARTER – TENTATIVE COURSE CONTENT

(NB: Depending on time and interest, the teacher may delete and/or add other selections.)

Week / Date	Topic / Projects / Assessments
Week 1 (10) **Oct 10th to 14th** **4 Days of Class** *10 – Double 10 Holiday*	4-1 Translations 4-2 Reflections Weekly Test
Week 2 (11) **Oct 17th to 21st**	4-3 Rotations 4-4 Congruence and Transformations Weekly Test
Week 3 (12) **Oct 24th to 28th** *25-27 – Book Fair* *28- Masquerade Night* *TBA-Holy Rosary Mass*	4-5 Dilations 4-6 Similarity and Transformation Weekly Test
Week 4 (13) **Oct 31st to Nov 4th** *1-All Saint's Day Mass*	5-1 Angles of Triangles 5-2 Congruent Polygons 5-3 Proving Triangles Congruent by SAS Weekly Test
Week 5 (14) **Nov 7th to 11th**	5-4 Equilateral and Isosceles Triangles 5-5 Proving Triangles Congruent by SSS Weekly Test
Week 6 (15) **Nov 14th to 18th**	5-6 Proving Triangles Congruent by ASA and AAS 5-7 Using Congruent Triangles 5-8 Coordinate Proofs Weekly Test
Week 7 (16) **Nov 21st to 25th** *25 - YSC Contest* *25-Gr.12 Q2 Exam*	6-1 Perpendicular and Angle Bisectors 6-2 Bisectors of Triangles 6-3 Medians and Altitudes of Triangles Weekly Test
Week 8 (17) **Nov 28th to Dec 2nd** FYI – Pre-Exam Days *28-Gr.12 Q2 Exam*	6-4 The Triangle Midsegement Theorem 6-5 Indirect Proof and Inequalities in One Triangle Weekly Test
Week 9 (18) **Dec 5th to 9th** 8 - Foundation Day Celebrations	6-6 Inequalities inn Two Triangles Review of Quarter 2 Exams
Week 10 (19) **Dec 12th to 16th**	Quarter 2 Exam

3 Days of Class *15-16 ~Q2 Exams*	
Dec 19th to Jan 2nd	**Christmas Break**

3rd QUARTER – TENTATIVE COURSE CONTENT

(NB: Depending on time and interest, the teacher may delete and/or add other selections.)

Week / Date	Topic / Projects / Assessments
Week 1 (20) **Jan 5 to 6th** **2 Days of Class**	7-1 Angles of Polygons 7-2 Properties of Parallelogram 7-3 Proving That a Quadrilateral is a Parallelogram Weekly Test
Week 2 (21) **Jan 9th to 13th**	7-4 Properties of special Parallelogram 7-5 Properties of Trapezoids 8-1 Similar Polygons Weekly test
Week 3 (22) **Jan 16th to 20th**	8-2 Proving Triangle Similarity by AA 8-3 Proving Triangle Similarity by SSS and SAS 8-4 Proportionality Theorems Weekly Test
Jan 23rd to 27th	**Chinese New Year**
Week 4 (23) **Jan 30th to Feb 3rd**	9-1 The Pythagorean Theorem 9-2 Special Right Triangles 9-3 Similar Right Triangles Weekly Test
Week 5 (24) **Feb 6th to 10th**	9-4 The Tangent Ratio 9-5 The Sine and Cosine Ratios 9-6 Solving Right Triangles Weekly Test
Week 6 (25) **Feb 13th to 17th**	9-7 Law of Sines and Laws of Cosines 10-1 Lines and Segments That Intersect Circles 10-2 Finding Arc Measures Weekly Test
Week 7 (26) **Feb 20th to 24th** *20-24 ~IOWA* *22 ~ Ash Wednesday Mass* *21-23 ~ Pre-Exam Days*	10-3 Using Chords 10-4 Inscribed Angles and Polygons 10-5 Angle Relationships in Circles Weekly Test
Week 8 (27) **Feb 27th to March3rd** **3 Days of Class** 27-28 ~ 228 Memorial Day Holiday	10-6 Segment Relationships in Circles 10-7 Circles in Coordinate Planes 10-8 Focus of a Parabola Review of Quarter 3 Exam
Week 9 (28) **March 6th to 10th** **4 Days of Class** *11 – Q3 Exams*	Quarter 3 Exam

4th QUARTER – TENTATIVE COURSE CONTENT

(NB: Depending on time and interest, the teacher may delete and/or add other selections.)

Week / Date	Topic / Projects / Assessments
Week 1 (29) **March 13th to 17th** **4 Days of Class** *13 – Q3 Exams* *14~ Q4 Begins*	11-1 Circumference and Arc Length 11-2 Areas of Circles and Sectors 11-3 Areas of Polygons Weekly Test
Week 2 (30) **March 20th to 24th** *20 ~ Fire Drill*	11-4 Modeling with Area 12-1 Cross Section of Solids 12-2 Volumes of Prism and Cylinders Weekly Test
Week 3 (31) **March 27th to 31st**	12-3 Volume of Pyramids 12-4 Surface Areas and Volumes of Cones 12-5 Surface Areas and Volumes of Spheres Weekly Test
Apr 3rd to 14th	**Easter Break**
Week 4 (33) **Apr 17th to 21st**	12-6 Modeling with Surface Area and Volume 12-7 Solids of Revolution 13-1 Sample Spaces and Probability Weekly Test
Week 5 (34) **Apr 24th to 28th** 24-28 ~ AP Mock Exams	13-2 Two-Way Tables and Probability 13-3 Conditional Probability 13-4 Independent and dependent Events Weekly Review
Week 6 (35) **May 1st to 5th** *2-4~ Pre-Exam* *1-5~ Final Exams (K, 5, 8, 12 only)* *1-5 ~ AP Exams*	13-5 Probability of Disjoint and Overlapping Events 13-6 Permutations and Combinations 13-7 Binomial Distributions Weekly Review
Week 7 (36) **May 8th to 12th** *8-12~ Final Exams(K, 5, 8, 12 only)* *1-5 ~ AP Exams*	Review of Quarter 4 Exam
Week 8 (37) **May 15th to 19th** **3 Days of Class** *18-19~ Q4 Exams*	Quarter 4 Exam
Week 9 (38) **May 22nd to 26th** **4 Days of Class** *22~ Record Day* *23-26 ~ Student Clearance*	Record day for Teachers, Deliberation, Recognition, and Promotion for Grade 9 WIDA Testing Students Clearance Day
Week 10 (39) **May 29th to June 2nd** **4 Days of Class** *1 ~ Students Last Day* *2~ Teachers/Staff Meeting*	Sports Day House Culminating Activity May Crowning and Mother's Day Celebration