Geometry 2016-2017

Yap Seventh-Day Adventist School

Yearly Lesson Outline with NAD Standards

Holt McDougal Larson Geometry, Common Core Edition

Quarter 1

Chapter 1 – Essentials of Geometry
GM.4.1 – Demonstrate understanding of undefined terms (point, line, plane, and space).
GM.4.3 – Understand how basic mathematical systems are built (observation, hypotheses, theorems, laws, etc.).
GM.4.4 – Characterize and classify objects (angles, polygons, polyhedral, circles, and spheres).
GM.5.1 – Specify spatial relationships using coordinate geometry.
GM.6.1 – Apply coordinate geometry and algebraic formulas to verify characteristics of geometric figures.

Chapter 2 – Reasoning and Proof
GM.4.2 – Interpret properties and relationships among figures using inductive and deductive reasoning.
GM.4.3 – Understand how basic mathematical systems are built (observation, hypotheses, theorems, laws, etc.).
GM.7.1 – Investigate, apply and prove properties and theorems.
GM.7.3 – Predict patterns and generalize trends.

Chapter 3 – Parallel and Perpendicular Lines
GM.6.1 – Apply coordinate geometry and algebraic formulas to verify characteristics of geometric figures.
GM.7.1 – Investigate, apply and prove properties and theorems.

Quarter 2

Chapter 4 – Congruent Triangles
GM.4.4 – Characterize and classify objects (angles, polygons, polyhedral, circles, and spheres).
GM.5.3 – Verify similarity and congruence of geometric figures.
GM.7.1 – Investigate, apply and prove properties and theorems.

Chapter 5 – Relationships within Triangles
GM.4.4 – Characterize and classify objects (angles, polygons, polyhedral, circles, and spheres).
GM.6.1 – Apply coordinate geometry and algebraic formulas to verify characteristics of geometric figures.
GM.7.1 – Investigate, apply and prove properties and theorems.

Chapter 6 – Similarity
GM.4.4 – Characterize and classify objects (angles, polygons, polyhedral, circles, and spheres).
GM.5.3 – Verify similarity and congruence of geometric figures.
GM.6.2 – Select and use an appropriate direct or indirect method of measurement.
GM.7.1 – Investigate, apply and prove properties and theorems.

Quarter 3

Chapter 7 – Right Triangles and Trigonometry
GM.4.4 – Characterize and classify objects (angles, polygons, polyhedral, circles, and spheres).
GM.6.4 – Use trigonometric equations to solve triangles and find areas.
GM.7.1 – Investigate, apply and prove properties and theorems.

Chapter 8 – Quadrilaterals
GM.4.4 – Characterize and classify objects (angles, polygons, polyhedral, circles, and spheres).
GM.6.1 – Apply coordinate geometry and algebraic formulas to verify characteristics of geometric figures.
GM.7.1 – Investigate, apply and prove properties and theorems.

Chapter 9 – Properties of Transformations
GM.4.5 – Recognize various types of symmetry and transformations.
GM.5.1 – Specify spatial relationships using coordinate geometry.
GM.7.1 – Investigate, apply and prove properties and theorems.

Quarter 4

Chapter 10 – Properties of Circles
GM.4.4 – Characterize and classify objects (angles, polygons, polyhedral, circles, and spheres).
GM.5.2 – Identify measurable attributes of figures and objects.
GM.6.2 – Select and use an appropriate direct or indirect method of measurement.
GM.7.1 – Investigate, apply and prove properties and theorems.

Chapter 11 – Measurements of Figures and Solids
GM.4.4 – Characterize and classify objects (angles, polygons, polyhedral, circles, and spheres).
GM.5.2 – Identify measurable attributes of figures and objects.
GM.6.1 – Apply coordinate geometry and algebraic formulas to verify characteristics of geometric figures.
GM.6.2 – Select and use an appropriate direct or indirect method of measurement.
GM.6.3 – Construct geometric figures and objects.
GM.7.1 – Investigate, apply and prove properties and theorems.

Based on the selection of problems throughout:

Word problems: GM.6.5 – Apply geometric methods to solve real-life problems.
Problems with data, graphs, ...: GM.7.2 – Find and interpret information from graphs, charts, and numerical data.
GM.7.4 – Make conjectures regarding meaning, utility, and reasonableness of findings in a variety of situations, including those carried out by technology.