**Challenger High School**

**Geometry Syllabus 2023-2024**

**MTH 151/152**

**Instructors: Sarah McKinley Phone: (253)800-6807 Email:** **smckinley@bethelsd.org**

**Grade Level:** 9, 10, 11, 12 **Credit:** Mathematics 1.0 **NCAA Approved**

**Course Description:** This course emphasizes the concepts of Geometry at the high school level. Topics include: reasoning in geometry, using tools in geometry, discovering and proving triangle properties, polygon properties, circle properties, angle/line relationships, transformations, area, volume, similarity, Pythagorean Theorem, and an introduction to trigonometry. In addition to these topics, students will interpret and make decisions based on geometric information and find ways to solve problems that arise in real life while working independently and in groups. Over the course of the year the student will earn a 1.0 credit (or 0.25 credit over the course of each quarter.)

 **MTH152**

Quarter 1: 8/30 – 11/3 Quarter 2: 11/6 – 1/30

Using Inductive Reasoning and Lines and Transversals

Conjectures Properties of a Triangle

Rigid Transformations Special Lines and Points in Triangles

Deductive Reasoning, Logic, and Proof Congruent Triangle Postulates

Conditional Statements and Converses Using Congruent Triangles

**MTH 152**

Quarter 3: 1/31 – 4/12 Quarter 4: 4/15 – 6/14

Dilations and Similarity Algebraic Representations of Circles

Applications of Similarity Modeling with Area

Pythagorean Theorem and the Distance Prisms and Cylinders

Formula Pyramids and Cones

Right Triangles and Trig Relationships Spheres

**This course meets Common Cores State Standards – Mathematics as defined by the state and the school district. This course meets the state and school district graduation requirements.**

Refer to: *Common Cores State Standards for Mathematics (*which can be found online at <https://www.thecorestandards.org/Math/>) for more detail and to identify specific standards. The CCSS-M priority standards for Bethel are:

* **G.CO.B.6** Transformations and Congruence
* **G.CO.C.10** Prove Theorems about Triangles
* **G.MG.A.1** Modeling with Geometric Shapes
* **G.MG.A.3** Solve Design Problems using Geometric Methods
* **G.GMD.A.3** Use Volume Formulas to Solve Problems
* **G.SRT.B.4** Prove Theorems about Similar Triangles
* **G.SRT.B.5** Use Congruence and Similarity in Geometric Figures
* **G.SRT.C.6** Definitions of Trigonometric Ratios
* **G.SRT.C.8** Trigonometric Ratios and Pythagorean Theorem

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**Materials:**

* District approved curriculum: Agile Mind: Geometry
* All other supplementary materials will be provided by the instructor or accessed on the iPad

**Grading Scale: (Progress reports will be done monthly)**

* **A** (92-100%)
* **A-** (90 – 91.9%)
* **B+** (87-89.9%)
* **B** (82 – 86.6%)
* **B-** (80-81.9%)
* **C+** (77-79.9%)
* **C** (72-76.9%)
* **C** (70-71.9%)
* **D+** (67 – 69.9%)
* **D** (60 – 66.9%)
* **NC** (59.9% or below) Student unable to demonstrate mastery of expected skills.

**Grading:**

* 20% Formative – exit slips and assignments that show students understanding as we progress through a topic and are used to inform instruction
* 80% Summative – topic assessments and performance tasks

**Class Expectations:**

 Each student is responsible for their own behavior and should act in a manner that will not detract from the learning environment for other students. Refer to the student handbook for further detail on behavioral expectations. Failure to abide by these expectations may result in a warning, removal from the class for a specified time period, parent phone call and/or conference, or additional discipline as spelled out in the student handbook.

* + On the Canvas Home page for this course students and parents are able to access the “lesson plan” for each day and a description of any graded assignments that need to be completed. If a student needs access to an assignment or quiz after it has closed they should let me know and I will reopen it for them.
	+ Grades are kept up to date on Synergy (Student and Parent Vue) at least weekly if not more often. If there are any questions as to a grade or an assignment I can be contacted at smckinley@bethelsd.org.

 Attendance is crucial in this class. Please be in class, on time, regularly. Many experiences in the classroom cannot be re-created on an individual basis. Research shows that students who miss even a few days of school each month are at a greater risk of academic failure and dropout. It is the student’s responsibility to get assignments and activities that have been missed due to absence from the course Canvas page. Students will spend 4 – 5 hours in class each week and can expect to have 2.5 hours of homework outside of class time.