



Three Rivers School District

# PLANNED COURSE STATEMENT

<b>Course Title: Geometry</b>	<b>Grade Level(s): 9-12</b>
<b>Length of Course: 2 trimesters</b>	<b>Credit Area: Math</b>
<b>Prerequisite: Algebra I or 8th Grade Math</b>	<b>Amount of Credit: 1.0 (0.5/semester)</b>
<b>Adopted/Supplemental Materials: Houghton Mifflin Harcourt, Big Ideas Math, Geometry, 2014</b>	
<b>Dual Credit Articulation:</b>	

## **COURSE DESCRIPTION:**

This course is designed to emphasize the study of the properties and applications of common geometric figures in 2 and 3 dimensions. It includes the study of transformations and right triangle trigonometry. Inductive and deductive thinking skills are used in problem-solving situations, and applications to the real world are stressed. It also emphasizes writing proofs to solve (prove) properties of geometric figures. It also features an introduction to statistical reasoning. Emphasis is on concepts rather than in-depth coverage of traditional statistical methods. Topics include sampling and experimentation, descriptive statistics, conditional probability and compound events, and estimation.

## **COURSE GOALS:**

Students will:

1. Transform 2D figures on a plane.
2. Use trigonometry to solve for missing sides and angles of right triangles.
3. Use theorems and properties to solve real world problems.
4. Use inductive and deductive reasoning to prove mathematical relationships.
5. Construct various two- and three-dimensional shapes.
6. Students will conduct and interpret a statistical experiment.
7. Describe the shape of a data set given descriptive statistics and state descriptive statistics given the shape of a data set.
8. Calculate and analyze conditional probability of mutually exclusive compound events.
9. Estimate likely outcomes of events based on probability.

## **ASSESSMENT STRATEGIES:**

Daily work, starter and exit activities, participation, written exams, performance tasks, oral and written student presentations on specific concepts and processes, and a notebook including daily notes.

## **ACCOMMODATIONS AND MODIFICATIONS:**

Any student who feels the course is moving too slowly and demonstrates mastery of the subject matter by consistently exceeding expectations for regular assignments is encouraged to meet with the teacher for more rigorous assignments and projects. More rigorous work will include alternate assignments and projects, not additional assignments. Work will be graded using the same standards for work completed by other students in the class. Conversely, a student with an IEP who needs more time to complete the work may have assignments modified to meet his/her needs.

**CAREER RELATED LEARNING STANDARDS:**

Students will demonstrate appropriate workplace behaviors (e.g. maintain regular attendance and be on time), apply decision-making and problem-solving techniques, demonstrate effective teamwork, apply the principles of effective communication to give and receive information, acquire, use, and transfer information, assess the relationship of educational achievement to career goals, research and analyze career options, assess characteristics related to personal, educational, and career goals, and demonstrate academic knowledge and technical skills required for successful employment.