UNIT OF STUDY

Title: Unit 2	**Subject/Course**: Geometry	**Length: 8 days**
Topic: Reasoning and Proof	**Grade: 10**	**Designer: Boyd**

UNIT GOALS AND EXPECTATIONS

IMPORTANT CONCEPTS/UNDERSTANDINGS:	**ESSENTIAL QUESTIONS:**
• Write Conditional Statements • Make Conclusions from Conditional Statements • Interpret Venn Diagrams • Define and Perform Transformations including reflections, rotations, translations, dilations	• What are conditional statements? • What is converse? • What is contrapositive? • What is inverse? • How are Venn diagrams used? • What is a translation?
STUDENT LEARNING EXPECTATIONS: LG.1.G.1 Define, compare and contrast inductive and deductive reasoning for making predictions based on real world situations LG.1.G.6 Give justification for conclusions reached by deductive reasoning CGT.5.G.7 Draw and interpret the results of transformations and successive transformations on figures in the coordinate plane Translations Reflections Rotations Dilations	
SPECIFIC DECLARATIVE KNOWLEDGE – What I know Vocabulary words: conjecture, inductive reasoning, contrapositive, converse, inverse, if-then statements, Venn diagram, reflection, translation, rotation, dilation, origin, axis, deductive reasoning	**SPECIFIC PROCEDURAL KNOWLEDGE – What I need to do** • Write statements into If-Then form • Write the converse of a given statement • Write the inverse of a given statement • Write the contrapositive of a given statement • Use conditional statements to make conclusions • Draw and predict using Venn diagrams • Sketch reflections about the axis • Translate a point on a grid • Rotate an object about the origin • Dilate a figure

UNIT ASSESSMENTS
(Include tasks related to Dimensions 3 and 4 and Bloom's Taxonomy)

Open Response Unit 2 question 2 reflections (application)
Open Response Unit 2 question 1 distance formula (application)

Traditional Assessments:	**Other Evidence of Learning:**
Midpoint Quiz Unit 2 Quiz Converse, Inverse and contra positives Unit 2 Unit Test	Homework Worksheet on Conditional statements Worksheet on bi-conditional statements Class work Transformation Worksheets

ACTIVITIES AND LEARNING EXPERIENCES	**Resources**
• Use real world situations to introduce conditional statements • Define conjecture, inductive reasoning, contrapositive, converse, inverse, if-then statements • Student will create if-then statement and find converse, inverse, and contrapositive of it. Students will then trade if-then statements find conditional statements of other student's statements. • Organize real world data in Venn diagrams and make conclusions • Define reflections, dilations, translations, and rotations using examples from their own experiences • Model reflections, dilations, translations, and rotations • Use tiles on floor as a coordinate grid to model reflections, translations, and rotations • Given a figure on a coordinate plane students will sketch the reflection, dilations, translations, and rotations • Reflections and axis of symmetry Activity • Use graph paper to model translations and Reflections	• Textbook • Mastery math worksheets • Venn diagram worksheets • Tape

Career Connections
Advertising copywriters, coastal research, zoologist, auto racing, carpentry