HS Geometry Curriculum

This curricula and accompanying instructional materials have been developed to align with the NJSLS and in accordance with the NJ Department of Education's guidelines to include: Curriculum designed to meet grade level expectations, integrated accommodations and modifications for students with IEPs, 504s, ELLs, and gifted and talented students, assessments including benchmarks, formative, summative, and alternative assessments, a list of core instructional and supplemental materials, pacing guide, interdisciplinary connections, integration of 21st century skills, integration of technology, and integration of 21st Century Life and Career standards.

About the Standards

In 1996, the New Jersey State Board of Education adopted the state's first set of academic standards called the Core Curriculum Content Standards. The standards described what students should know and be able to do upon completion of a thirteen-year public school education. Over the last twenty years, New Jersey's academic standards have laid the foundation for local district curricula that is used by teachers in their daily lesson plans.

Revised every five years, the standards provide local school districts with clear and specific benchmarks for student achievement in nine content areas. Developed and reviewed by panels of teachers, administrators, parents, students, and representatives from higher education, business, and the community, the standards are influenced by national standards, research-based practice, and student needs. The standards define a "Thorough and Efficient Education" as guaranteed in 1875 by the New Jersey Constitution. Currently the standards are designed to prepare our students for college and careers by emphasizing high-level skills needed for tomorrow's world.

The New Jersey Student Learning Standards include Preschool Teaching and Learning Standards, as well as nine K-12 standards for the following content areas: **21st Century Life and Careers, Comprehensive Health and Physical Education, English Language Arts, Mathematics, Science, Social Studies, Technology, Visual and Performing Arts, World Languages**

The most recent review and revision of the standards occurred in 2014. However, the standards in language arts and math underwent an additional review in 2015 with adoption by the New Jersey State Board of Education in May 2016.

Content Area: Mathematics	
Course Title: HS Geometry	**Grade level: 9-12**
Unit 1: Basics, Proofs, and Parallel and Perpendicular Lines	**September - November**
Unit 2: Transformations and Triangles	**November - January**
Unit 3: Polygons, Trig Ratios, and Circles	**January - April**
Unit 4: Similarity, Circumference, Area, and Volume	**April - June**
Date Created:	**Board Approved On:**

Lower Cape May Regional School District (Insert Subject/Content Area) Curriculum Unit 1 Overview
Content Area: Mathematics

Unit Title: Basics, Proofs, and Parallel and Perpendicular Lines

Target Course/Grade Level: 9-12

Unit Summary:

In Unit 1:

- Prove geometric theorems

Interdisciplinary Connections:

- Sciences, especially Physics and Biology
- Language Arts

21st Century Themes, Skills, and Standards:

P2 - Apply appropriate academic and technical skills.

P4 - Communicate clearly and effectively and with reason.

P8- Utilize critical thinking to make sense of problems and persevere in solving them.

P11- Use technology to enhance productivity.

Learning Targets

CPI #	Cumulative Progress Indicators (CPI) for Unit
#1 G.CO.C.9	Prove theorems about lines and angles.
#2 G.GPE.B.5	Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems.
#3 G.CO.A.1	Know precise definitions of angle, perpendicular line, parallel line,and line segment, based on the undefined notions of point, line, and distance along a line.

Unit Enduring Questions:	**Unit Enduring Understandings:**
● How do I define angles, circles, parallel lines, perpendicular lines and line segments using the undefined notion of a point, line, distance along a line and distance around a circular arc? ● How can I prove theorems involving lines, angles, triangles, and parallelograms? ● How can I use the slopes of parallel and perpendicular lines to solve geometric problems?	● Use the undefined notion of a point, line, distance along a line and distance around a circular arc to develop definitions for angles, circles, parallel lines, perpendicular lines and line segments. ● Construct and explain formal proofs of theorems involving lines, angles, triangles, and parallelograms. ● Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems.

Unit Objectives: ***Students will know….*** ● Point, line, plane, distance along a line, and distance around a circular arc as indefinable notions. ● A formal proof may be represented with a paragraph proof or a two-column proof.	**Unit Objectives:** ***Students will be able to…...*** ● use point, line, and distance along a line to give a precise definition of - angle; - perpendicular line (two lines are perpendicular if an angle formed by the two lines at the point of intersection is a right angle); - parallel lines (distinct lines that have no point in common); - and line segment. ● construct and explain proofs of theorems about lines and angles including: - vertical angles are congruent; - congruence of alternate interior angles; - congruence of corresponding angles; and points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints. ● prove the slope criteria for parallel lines (parallel lines have equivalent slopes) ● prove the slope criteria for perpendicular lines (the product of the slopes of perpendicular lines equals -1). ● solve problems using the slope criteria for parallel and perpendicular lines.

Lower Cape May Regional School District (Insert Subject/Content Area) Curriculum
Unit 2 Overview

Content Area: Mathematics

Unit Title: Transformations and Triangles

Target Course/Grade Level: 9-12

Unit Summary:
In Unit 2:

- **Experiment with transformations in the plane.**
- **Understand congruence in terms of rigid motions.**

Interdisciplinary Connections:

- Art
- Sciences, especially Physics
- History and Social Studies

21st Century Themes, Skills, and Standards:
P2 - Apply appropriate academic and technical skills.
P4 - Communicate clearly and effectively and with reason.
P8- Utilize critical thinking to make sense of problems and persevere in solving them.
P11- Use technology to enhance productivity.

Learning Targets

CPI #	Cumulative Progress Indicators (CPI) for Unit
#1 G.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.
#2 G.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.

#3 G.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.
#4 G.SRT.A.1.	Verify experimentally the properties of dilations given by a center and a scale factor.
#5 G.CO.C.10.	Prove theorems about triangles.
#6 G.SRT.B.4.	Prove theorems about triangles.

Unit Enduring Questions:	**Unit Enduring Understandings:**
● How are rigid transformations different from dilations, horizontal stretches and vertical stretches? ● What rotations and reflections carry a rectangle, parallelogram, trapezoid, or regular polygon onto itself? ● What sequence of transformations is required in order to map one figure onto another? ● How can I use corresponding pairs of sides and corresponding pairs of angles to show that two triangles are congruent? ● What are the properties of dilations using a center and a scale factor?	● Represent transformations in the plane using transparencies, describe and explain transformations as functions, and compare rigid transformations to dilations, horizontal stretches and vertical stretches. ● Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself, and identify lines of symmetry. ● Develop formal definitions of rotations, reflections, and translations. ● Draw transformed figures using graph paper, tracing paper, and/or geometry software and identify a sequence of transformations required in order to map one figure onto another. ● Use rigid transformations to determine and explain congruence of geometric figures. ● Show and explain that two triangles are congruent by using corresponding pairs of sides and corresponding pairs of angles, and by using rigid motions (transformations). ● Show and explain how the criteria for triangle congruence extend from the definition of congruence in terms of rigid motion. ● Verify the properties of dilations given by a center and a scale factor. ● Construct and explain formal proofs of theorems involving triangles. ● Prove theorems about triangles.

Unit Objectives: ***Students will know….*** ● Congruence in terms of rigid motion. ● Triangle congruence in terms of rigid motion. ● Criteria for triangle congruence. ● Dilation of a line that passes through the center of dilation results in the same line. ● Dilation of a line that does not pass through the center of dilation results in a line that is parallel to the original line. ● Dilation of a line segment results in a longer line segment when, for scale factor k, |k| is greater than 1. ● Dilation of a line segment results in a shorter line segment when, for scale factor k, |k| is less than 1.	**Unit Objectives:** ***Students will be able to…...*** ● predict the outcome of a transformation on a figure. ● given a description of the rigid motions, transform figures. ● given two figures, decide if they are congruent by applying rigid motions. ● given that two triangles are congruent based on rigid motion, show that corresponding pairs of sides and angles are congruent. ● given that corresponding pairs of sides and angles of two triangles are congruent, show, using rigid motion (transformations) that they are congruent. ● show and explain the criteria for Angle-Side-Angle triangle congruence. ● show and explain the criteria for Side-Angle-Side triangle congruence. ● show and explain the criteria for Side-Side-Side triangle congruence. ● explain the relation of the criteria for triangle congruence to congruence in terms of rigid motion. ● perform dilations in order to verify the impact of dilations on lines and line segments. ● construct and explain proofs of theorems about triangles including: - sum of interior angles of a triangle; - congruence of base angles of an isosceles triangle; - 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. ● construct and explain proofs of theorems about triangles including: - a line parallel to one side of a triangle divides the other two sides proportionally; - the Pythagorean Theorem (using triangle

		similarity).

Lower Cape May Regional School District (Insert Subject/Content Area) Curriculum **Unit 3 Overview**
Content Area: Mathematics
Unit Title: Polygons, Trig Ratios, and Circles

Target Course/Grade Level: 9-12

Unit Summary:

In Unit 3:

- **Understand similarity in terms of similarity transformations .**
- **Define trigonometric ratios and solve problems involving right triangles.**
- **Understand and apply theorems about circles.**

Interdisciplinary Connections:

- Sciences, especially Physics
- Art
- History and Social Studies

21st Century Themes, Skills, and Standards:

P2 - Apply appropriate academic and technical skills.

P4 - Communicate clearly and effectively and with reason.

P8- Utilize critical thinking to make sense of problems and persevere in solving them.

P11- Use technology to enhance productivity.

Learning Targets

CPI #	**Cumulative Progress Indicators (CPI) for Unit**
#1 G.CO.C.11.	Prove theorems about parallelograms.
#2 G.GPE.B.4.	Use coordinates to prove simple geometric theorems algebraically.
#3 G.GPE.B.6.	Find the point on a directed line segment between two given points that partitions the segment in a given ratio.

#4 G.GPE.B.7.	Use coordinates to compute perimeters of polygons and areas of triangles and rectangles.
#5 G.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.
#6 G.SRT.C.7.	Explain and use the relationship between the sine and cosine of complementary angles.
#7 G.SRT.C.8.	Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.

Unit Enduring Questions:	**Unit Enduring Understandings:**
● How do I find the point on a directed line segment between two given points that partitions the segment in a given ratio? ● How do I use coordinates to prove simple geometric theorems algebraically? ● What is the relationship between the sine and cosine of complementary angles? ● How can I use trigonometric ratios and the Pythagorean Theorem to compute all angle measures and side lengths of triangles in applied problems? ● What is the equation of a circle of given the center and radius? ● Are all circles similar? ● What are the relationships among inscribed angles, radii, and chords	● Construct and explain formal proofs of theorems involving parallelograms. ● Find the point on a directed line segment between two given points that partitions the segment in a given ratio and use coordinates to compute perimeters of polygons and areas of triangles and rectangles. ● Use coordinates to prove simple geometric theorems algebraically. ● Show and explain that definitions for trigonometric ratios derive from similarity of right triangles. ● Explain and use the relationship between the sine and cosine of complementary angles; use trigonometric ratios and the Pythagorean Theorem to compute all angle measures and side lengths of triangles in applied problems. ● Derive the equation of a circle of given the center and radius using the Pythagorean Theorem. Given an equation, complete the square to find the center and radius of the circle. ● Prove that all circles are similar. ● Identify and describe relationships among inscribed angles, radii, and chords; use these relationships to solve problems. ● Prove the properties of angles for a quadrilateral inscribed in a circle and construct inscribed and circumscribed circles of a triangle using geometric tools and geometric software.

Unit Objectives: ***Students will know….*** ● Side ratios in right triangles are properties of the angles in the triangle. ● Relationship between sine and cosine of complementary angles.		**Unit Objectives:** ***Students will be able to…...*** ● construct and explain proofs of theorems about parallelograms including: - opposite sides are congruent; - opposite angles are congruent; - the diagonals of a parallelogram bisect each other; - rectangles are parallelograms with congruent diagonals. ● use coordinates to prove geometric theorems including: - prove or disprove that a figure defined by four given points in the coordinate plane is a rectangle (or other quadrilateral); - prove or disprove that a given point lies on a circle of a given center and radius or point on the circle. ● locate the point on a directed line segment that creates two segments of a given ratio. ● find perimeters of polygons using coordinates, the Pythagorean theorem and the distance formula. ● find areas of triangle and rectangles using coordinates. ● show and explain that definitions for trigonometric ratios derive from similarity of right triangles. ● determine and compare sine and cosine ratios of complementary angles in a right triangle. ● solve right triangles (determine all angle measures and all side lengths) using trigonometric ratios and the Pythagorean Theorem.

Lower Cape May Regional School District (Insert Subject/Content Area) Curriculum
Unit 4 Overview

Content Area: Mathematics

Unit Title: Similarity, Circumference, Area, and Volume

Target Course/Grade Level: 9-12

Unit Summary:
In Unit 4:

- Understand similarity in terms of similarity transformations.
- Prove theorems involving similarity.
- Translate between the geometric description and the equation for a conic section.
- Find arc lengths and areas of sectors of circles.
- Explain volume formulas and use them to solve problems.
- Visualize relationships between two dimensional and three-dimensional objects.
- Apply geometric concepts in modeling situations.

Interdisciplinary Connections:

- Art
- Sciences, especially Chemistry
- History and Social Studies

21st Century Themes, Skills, and Standards:

P2 - Apply appropriate academic and technical skills.

P4 - Communicate clearly and effectively and with reason.

P8- Utilize critical thinking to make sense of problems and persevere in solving them.

P11- Use technology to enhance productivity.

Learning Targets

CPI #	Cumulative Progress Indicators (CPI) for Unit
#1 G.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.
#2 G.SRT.A.3.	Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar.
#3 G.SRT.B.5.	Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.
#4 G.MG.A.1.	Use geometric shapes, their measures, and their properties to describe objects.
#5 G.MG.A.2.	Apply concepts of density based on area and volume in modeling situations.
#6 G.MG.A.3.	Apply geometric methods to solve design problems.

Unit Enduring Questions:	**Unit Enduring Understandings:**
● How are two given figures similar in terms of similarity transformations? ● How can I use congruence and similarity criteria for triangles to solve problems? ● How do I show that the length of the arc intercepted by an angle is proportional to the radius? ● What three-dimensional objects are created by the rotation of two-dimensional objects?	● Use the definition of similarity in terms of similarity transformations to decide if two given figures are similar and explain, using similarity transformations, the meaning of triangle similarity. ● Use the properties of similarity transformations to establish the Angle-Angle criterion for two triangles to be similar. ● Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures. ● Find arc lengths and areas of sectors of circles; use similarity to show that the length of the arc intercepted by an angle is proportional to the radius. Derive the formula for the area of a sector. ● Model real-world objects with geometric shapes based upon their measures and properties, and solve problems using volume formulas for cylinders, pyramids, cones, and spheres. Identify cross-sections, three-dimensional figures, and identify three-dimensional objects created by the rotation of two-dimensional objects. ● Apply concepts of density based on area and volume in modeling situations. ● Solve design problems using geometric methods. ● Using dissection arguments, Cavalieri's principle, and informal limit arguments, develop informal arguments for formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone.

Unit Objectives: ***Students will know….*** ● Similarity transformations are used to determine the similarity of two figures. ● Angle-Angle criterion for similarity. ● Corresponding parts of congruent triangles are congruent (CPCTC). ● Real-world objects can be described, approximately, using geometric shapes, their measures, and their properties.		**Unit Objectives:** ***Students will be able to…...*** ● given two figures, determine, using transformations, if they are similar. ● explain, using similarity transformations, the meaning of similarity for triangles. ● explain Angle-Angle criterion and its relationship to similarity transformations and properties of triangles. ● prove geometric relationships in figures using criteria for triangle congruence. ● solve problems using triangle congruence criteria (SSS, ASA, SAS, HL). ● solve problems using triangle similarity criteria (AA). ● identify cross-sections of three dimensional objects. ● identify three-dimensional objects generated by rotation of two-dimensional objects. ● solve problems using volume formulas for cylinders, pyramids, cones, and spheres. ● model real-world objects with geometric shapes. ● describe the measures and properties of geometric shapes that best represent a real-world object. ● model real-world situations, applying density concepts based on area. ● model real-world situations, applying density concepts based on volume. ● design objects or structures satisfying physical constraint. ● design objects or structures to minimize cost. ● solve design problems.

Lower Cape May Regional School District (Insert Subject/Content Area) Curriculum
Evidence of Learning

Specific Formative Assessments Utilized in Daily Lessons:

- Warm ups
- Independent practice
- Oral questioning

Summative Assessment Utilized throughout Units:

- QBA's
- Benchmark 1 - Basics of Geometry
- Benchmark 2 - Bisectors, Medians, and Altitudes
- Benchmark 3 - Circles
- Benchmark 4 - Similarity
- Quizzes and Tests

Modifications for ELL's, Special Education, 504, and Gifted and Talented Students:

Teacher tutoring
Peer tutoring
Cooperative Learning Groups
Modified Assignments
Differentiated Instruction
Response to Intervention (www.help4teachers.com)
Follow all IEP and 504 modifications

Teacher Notes:

- As required by the NJ Department of Education, teachers in all content areas will integrate the 21st Century Life and Careers Standards. As the NJDOE indicates, "Providing New Jersey students with the life and career skills needed to function optimally within this dynamic context is a critical focus and organizing principle of K-12 public education. New Jersey has both an obligation to prepare its young people to thrive in this environment, and a vested economic interest in grooming an engaged citizenry made up of productive members of a global workforce that rewards innovation, creativity, and adaptation to change." The links below indicate the CPIs for grade ranges and need to be addressed throughout the units of study:

  Life and Career Standards

- As indicated in the NJSLS, standards and interdisciplinary connections will be integrated throughout content area curriculum. Links to relevant content standards can be found below:

  http://www.corestandards.org/Math/

Project-based Learning Tasks:

- Several will be utilized throughout the curriculum - provided by Big Ideas curriculum, as well as original tasks created by the teacher

Vocabulary:

- In-text vocabulary should be incorporated into every unit. Word journals, vocabulary walls, and/or various other activities should be utilized by the instructor to teach vocabulary.

The Research Process:

- The research process must be integrated within each course curriculum. Student will be provided with opportunities to investigate issues from thematic units of study. As the NJSLS indicate, students will develop proficiency with MLA or APA format as applicable.
- Internet
- Textbook
- Media Center

Technology:

- Students must engage in technology applications integrated throughout the curriculum.

Applicable technology utilized in this curricula are included below:

- Chromebooks
- Calculators

Resources:

- Ancillary resources and materials used to deliver instruction are included below:
  - Practice worksheets

Differentiation Strategies

Differentiation strategies can require varied amounts of preparation time. High-prep strategies often require a teacher to both create multiple pathways to process information/demonstrate learning and to assign students to those pathways. Hence, more ongoing monitoring and assessment is often required. In contrast, low-prep strategies might require a teacher to strategically create process and product choices for students, but students are allowed to choose which option to pursue given their learning profile or readiness level. Also, a low-prep strategy might be focused on a discrete skill (such as vocabulary words), so there are fewer details to consider. Most teachers find that integration of one to two new low-prep strategies and one high-prep strategy each quarter is a reasonable goal.

Low Prep Strategies (add to list as needed)	
Varied journal prompts, spelling or vocabulary lists	Students are given a choice of different journal prompts, spelling lists or vocabulary lists depending on level of proficiency/assessment results.

Anchor activities	Anchor activities provide meaningful options for students when they are not actively engaged in classroom activities (e.g., when they finish early, are waiting for further directions, are stumped, first enter class, or when the teacher is working with other students). Anchors should be directly related to the current learning goals.
Choices of books	Different textbooks or novels (often at different levels) that students are allowed to choose from for content study or for literature circles.
Choices of review activities	Different review or extension activities are made available to students during a specific section of the class (such as at the beginning or end of the period).
Homework options	Students are provided with choices about the assignments they complete as homework. Or, students are directed to specific homework based on student needs.
Student-teacher goal setting	The teacher and student work together to develop individual learning goals for the student.
Flexible grouping	Students might be instructed as a whole group, in small groups of various permutations (homogeneous or heterogeneous by skill or interest), in pairs or individual. Any small groups or pairs change over time based on assessment data.
Varied computer programs	The computer is used as an additional center in the classroom, and students are directed to specific websites or software that allows them to work on skills at their level.
Multiple Intelligence or Learning Style options	Students select activities or are assigned an activity that is designed for learning a specific area of content through their strong intelligence (verbal-linguistic, interpersonal, musical, etc.)

Varying scaffolding of same organizer	Provide graphic organizers that require students to complete various amounts of information. Some will be more filled out (by the teacher) than others.
Think-Pair-Share by readiness, interest, and/or learning profile	Students are placed in predetermined pairs, asked to think about a question for a specific amount of time, then are asked to share their answers first with their partner and then with the whole group.
Mini workshops to re-teach or extend skills	A short, specific lesson with a student or group of students that focuses on one area of interest or reinforcement of a specific skill.
Orbitals	Students conduct independent investigations generally lasting 3-6 weeks. The investigations "orbit" or revolve around some facet of the curriculum.
Games to practice mastery of information and skill	Use games as a way to review and reinforce concepts. Include questions and tasks that are on a variety of cognitive levels.
Multiple levels of questions	Teachers vary the sorts of questions posed to different students based on their ability to handle them. Varying questions is an excellent way to build the confidence (and motivation) of students who are reluctant to contribute to class discourse. Note: Most teachers would probably admit that without even thinking about it they tend to address particular types of questions to particular students. In some cases, such tendencies may need to be corrected. (For example, a teacher may be unknowingly addressing all of the more challenging questions to one student, thereby inhibiting other students' learning and fostering class resentment of that student.)
High Prep Strategies (add to list as needed)	

Cubing	Designed to help students think about a topic or idea from many different angles or perspectives. The tasks are placed on the six sides of a cube and use commands that help support thinking (justify, describe, evaluate, connect, etc.). The students complete the task on the side that ends face up, either independently or in homogenous groups.
Tiered assignment/ product	The content and objective are the same, but the process and/or the products that students must create to demonstrate mastery are varied according to the students' readiness level.
Independent studies	Students choose a topic of interest that they are curious about and wants to discover new information on. Research is done from questions developed by the student and/or teacher. The researcher produces a product to share learning with classmates.
4MAT	Teachers plan instruction for each of four learning preferences over the course of several days on a given topic. Some lessons focus on mastery, some on understanding, some on personal involvement, and some on synthesis. Each learner has a chance to approach the topic through preferred modes and to strengthen weaker areas
Jigsaw	Students are grouped based on their reading proficiency and each group is given an appropriate text on a specific aspect of a topic (the economic, political and social impact of the Civil War, for example). Students later get into heterogeneous groups to share their findings with their peers, who have read about different areas of study from source texts on their own reading levels. The jigsaw technique allows you to tackle the same subject with all of your students while discreetly providing them the different tools they need to get there.
Multiple texts	The teacher obtains or creates a variety of texts at different reading levels to assign strategically to students.

Alternative assessments	After completing a learning experience via the same content or process, the student may have a choice of products to show what has been learned. This differentiation creates possibilities for students who excel in different modalities over others (verbal versus visual).
Modified Assessments	Assessments can be modified in a variety of ways – for example by formatting the document differently (e.g. more space between questions) or by using different types of questions (matching vs. open ended) or by asking only the truly essential questions.
Learning contracts or Personal Agendas	A contract is a negotiated agreement between teacher and student that may have a mix of requirements and choice based on skills and understandings considered important by the teacher. A personal agenda could be quite similar, as it would list the tasks the teacher wants each student to accomplish in a given day/lesson/unit. Both Learning contracts and personal agendas will likely vary between students within a classroom.
Compacting	This strategy begins with a student assessment to determine level of knowledge or skill already attained (i.e. pretest). Students who demonstrate proficiency before the unit even begins are given the opportunity to work at a higher level (either independently or in a group).
Literature circles	Flexible grouping of students who engage in different studies of a piece of literature. Groups can be heterogeneous and homogeneous.
Learning Centers	A station (or simply a collection of materials) that students might use independently to explore topics or practice skills. Centers allow individual or groups of students to work at their own pace. Students are constantly reassessed to determine which centers are appropriate for students at a particular time, and to plan activities at those centers to build the most pressing skills.

Tic-Tac-Toe Choice Board (sometimes called "Think-Tac-Toe"	The tic-tac-toe choice board is a strategy that enables students to choose multiple tasks to practice a skill, or demonstrate and extend understanding of a process or concept. From the board, students choose (or teacher assigns) three adjacent or diagonal. To design a tic-tac-toe board: - Identify the outcomes and instructional focus - Design 9 different tasks - Use assessment data to determine student levels - Arrange the tasks on a tic-tac-toe board either randomly, in rows according to level of difficulty, or you may want to select one critical task to place in the center of the board for all students to complete.

Curriculum development Resources/Instructional Materials:

List or Link Ancillary Resources and Curriculum Materials Here:

- Textbook
- Practice worksheets
- Quizzes
- Tests

Board of Education Approved Text(s)

- Big Ideas Math - Geometry