

**CKSD Curriculum
Triangles & Angles
Transition Math 7th Grade
Suggested Length of Unit – 10 Days
Instructor: Stefanie W. Ritchey**

Unit title and short description

- Triangle and Angle Relationships – focuses on the properties of triangles and the relationships that exist between angles presented in different situations

Major Academic Standards Addressed

- M07CG11 Describe and apply properties of geometric figures
- M07CG112 Identify or describe the properties of all types of triangles based on angle and side measures
- M07CG113 Use and apply the triangle inequality theorem
- M07CG21 Identify, use, and describe properties of angles and their measures
- M07CG211 Identify and use properties of supplementary, complementary, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure
- M07CG212 Identify and use properties of angles formed when two parallel lines are cut by a transversal

Concepts – Content — **What students should know**

- Arithmetic Operations
- Solving 1-step equations
- Polygon Relationships

Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

- Use properties of angle types and properties of angles formed when two parallel lines are cut by a transversal line to solve problems
- Apply the properties of all types of triangles based on angle and side measure including the triangle inequality theorem

Essential Questions – meant to challenge study to ponder, question and query

- How can the application of the attributes of geometric shapes support mathematical reasoning and problem solving?

- How can geometric properties and theorems be used to describe, model, and analyze situations?

Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com Activities

Best Instructional Practice(s): Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.

- Pair/Share activities
- Guided Practice
- Individual and groupwork using white boards or sketches app on ipad
- Discovery/Investigative activities
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com Activities

**CKSD Curriculum
Circles
Transition Math 7th Grade
Suggested Length of Unit – 8 Days
Instructor: Stefanie W. Ritchey**

Unit title and short description

- Circle Relationships and Calculations – focuses on the properties of circles and circle calculations of Area and Circumference

Major Academic Standards Addressed

- M07CG22 Determine circumference, area, surface area and volume
 - M07CG221 Find the area and circumference of a circle
 - M07CG222 Solve real-world and mathematical problems involving area, volume, and surface area of two and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes and right prisms
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Concepts – Content — **What students should know**

- Arithmetic Operations
- Parts and Relationships within circles
- Use of Formulas

Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

- Solve problems involving area and circumference of a circle
- Solve mathematical problems involving area, volume and surface area of two and three- dimensional objects

Essential Questions – meant to challenge study to ponder, question and query

- How can the application of the attributes of geometric shapes support mathematical reasoning and problem solving?
- How can geometric properties and theorems be used to describe, model, and analyze situations?

Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com Activities

Best Instructional Practice(s): Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.

- Pair/Share activities
- Guided Practice
- Individual and groupwork using white boards or sketches app on ipad
- Discovery/Investigative activities
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com Activities

Suggested Length of Unit – 7 Days
Instructor: Stefanie W. Ritchey

Unit title and short description

- Cross-Sections of Three Dimensional Shapes – focuses on 3D solids and the cross-sections that are created from them

Major Academic Standards Addressed

- M07CG11 Describe and apply properties of geometric figures
- M07CG114 Describe the two-dimensional figures that result from slicing three-dimensional figures

Concepts – Content — **What students should know**

- 3D Solids and their names
- Polygon Relationships
- Parallel & Perpendicular Aspects

Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

- Describe the two-dimensional figures that result from slicing three-dimensional figures

Essential Questions – meant to challenge study to ponder, question and query

- How can patterns be used to describe relationships in mathematical situations?
- How are spatial relationships, including shape and dimension, used to draw, construct, model, and represent real situations or solve problems?

Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com Activities

Best Instructional Practice(s): Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.

- Pair/Share activities
- Guided Practice
- Individual and groupwork using white boards or sketches app on ipad
- Discovery/Investigative activities
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com Activities

**CKSD Curriculum
Area, Volume & Surface Area
Transition Math 7th Grade
Suggested Length of Unit – 13 Days
Instructor: Stefanie W. Ritchey**

Unit title and short description

- Compound Area, Volume and Surface Area – focuses on calculations of two-dimensional and three-dimensional geometric objects

Major Academic Standards Addressed

- M07CG22 Determine circumference, area, surface area, and volume
- M07CG221 Find the area and circumference of a circle.
- M07CG222 Solve real-world and mathematical problems involving area, volume, and surface area of two and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes and right prisms.

Concepts – Content —What students should know

- Calculations of Circles
- Calculating Perimeter of Polygons
- Calculating Area of Polygons
- Use of Formulas
- Arithmetic Operations
- 3D Solids and their relationships

Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

- Solve problems involving area and circumference of a circle
- Solve mathematical problems involving area, volume and surface area of two and three-dimensional objects

Essential Questions – meant to challenge study to ponder, question and query

- How can patterns be used to describe relationships in mathematical situations?
- How can recognizing repetition or regularity assist in solving problems more efficiently?
- How are spatial relationships, including shape and dimension, used to draw, construct, model, and represent real situations or solve problems?
- How can the application of the attributes of geometric shapes support mathematical reasoning and problem solving?

Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com Activities

Best Instructional Practice(s): Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.

- Pair/Share activities
- Guided Practice
- Individual and groupwork using white boards or sketches app on ipad
- Discovery/Investigative activities
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com Activities

**CKSD Curriculum
Overall Review
Transition Math 7th Grade
Suggested Length of Unit – 6 Days
Instructor: Stefanie W. Ritchey**

Unit title and short description

- Review of Geometric Concepts – focuses on all the standards and strategies that were discussed throughout the marking period

Major Academic Standards Addressed

- M07CG11 Describe and apply properties of geometric figures
- M07CG112 Identify or describe the properties of all types of triangles based on angle and side measures
- M07CG113 Use and apply the triangle inequality theorem
- M07CG114 Describe the two-dimensional figures that result from slicing three-dimensional figures
- M07CG21 Identify, use and describe properties of angles and their measures
- M07CG211 Identify and use properties of supplementary, complementary, and adjacent angles in multi-step problem to write and solve simple equations for an unknown angle in a figure
- M07CG212 Identify and use properties of angles formed when two parallel lines are cut by a transversal
- M07CG22 Determine circumference, area, surface area, and volume
- M07CG221 Find the area and circumference of a circle.
- M07CG222 Solve real-world and mathematical problems involving area, volume, and surface area of two and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes and right prisms.

Concepts – Content — **What students should know**

- Triangle Relationships
- Angle Relationships
- Arithmetic Operations
- Solving 1-step equations
- Polygon Relationships
- 2 & 3 Dimensional figures
- Use of formulas
- Circle Calculations
- Cross-sections
- Area, Volume and Surface Area Calculations

Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

- Use properties of angle types and properties of angles formed when two parallel lines are cut by a transversal line to solve problems
- Solve problems involving area and circumference of a circle
- Solve mathematical problems involving area, volume and surface area of two and three-dimensional objects
- Apply the properties of all types of triangles based on angle and side measure including the triangle inequality theorem
- Describe the two-dimensional figures that result from slicing three-dimensional figures

Essential Questions – meant to challenge study to ponder, question and query

- How can patterns be used to describe relationships in mathematical situations?
- How can recognizing repetition or regularity assist in solving problems more efficiently?
- How are spatial relationships, including shape and dimension, used to draw, construct, model, and represent real situations or solve problems?
- How can the application of the attributes of geometric shapes support mathematical reasoning and problem solving?
- How can geometric properties and theorems be used to describe, model and analyze situations?

Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com Activities

Best Instructional Practice(s): Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.

- Pair/Share activities
- Guided Practice
- Individual and groupwork using white boards or sketches app on ipad
- Discovery/Investigative activities
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com Activities

**CKSD Curriculum
Topic 1**

Transition Math 7th Grade
Suggested Length of Unit – _____ Days
Instructor: Stefanie W. Ritchey

Unit title and short description

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Major Academic Standards Addressed

Concepts – Content — **What students should know**

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Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

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Essential Questions – meant to challenge study to ponder, question and query

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Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com Activities

Best Instructional Practice(s): *Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.*

- Pair/Share activities

- Guided Practice
- Individual and groupwork using white boards or sketches app on ipad
- Discovery/Investigative activities
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com Activities

CKSD Curriculum
Topic 1
Transition Math 7th Grade
Suggested Length of Unit – _____ Days
Instructor: Stefanie W. Ritchey

Unit title and short description

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Major Academic Standards Addressed

Concepts – Content — **What students should know**

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Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

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Essential Questions – meant to challenge study to ponder, question and query

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Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com Activities

Best Instructional Practice(s): Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.

- Pair/Share activities
- Guided Practice
- Individual and groupwork using white boards or sketches app on ipad
- Discovery/Investigative activities
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com Activities

**CKSD Curriculum
Topic 1
Transition Math 7th Grade
Suggested Length of Unit – _____ Days
Instructor: Stefanie W. Ritchey**

Unit title and short description

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Major Academic Standards Addressed

Concepts – Content — **What students should know**

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Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

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Essential Questions – meant to challenge study to ponder, question and query

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Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com Activities

Best Instructional Practice(s): Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.

- Pair/Share activities
- Guided Practice
- Individual and groupwork using white boards or sketches app on ipad
- Discovery/Investigative activities
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com Activities

**CKSD Curriculum
Topic 1
Transition Math/7th Grade
Suggested Length of Unit – _____ Days
Instructor: Stefanie W. Ritchey**

Unit title and short description

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Major Academic Standards Addressed

Concepts – Content —What students should know

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Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

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Essential Questions – meant to challenge study to ponder, question and query

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Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com Activities

Best Instructional Practice(s): Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.

- Pair/Share activities
- Guided Practice
- Individual and groupwork using white boards or sketches app on ipad
- Discovery/Investigative activities
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com Activities

**CKSD Curriculum
Unit Template
Course/Subject/Grade Level?
Suggested Length of Unit – _____ Days
Instructor:**

Unit title and short description

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Major Academic Standards Addressed

Concepts – Content — **What students should know**

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Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

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Essential Questions – meant to challenge study to ponder, question and query

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Assessments- Assessments should be directly related to the objectives identified for students in this unit.

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Best Instructional Practice(s): Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.

**CKSD Curriculum
Unit Template
Course/Subject/Grade Level?
Suggested Length of Unit – _____ Days
Instructor:**

Unit title and short description

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Major Academic Standards Addressed

Concepts – Content — **What students should know**

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Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

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Essential Questions – meant to challenge study to ponder, question and query

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Assessments- Assessments should be directly related to the objectives identified for students in this unit.

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Best Instructional Practice(s): Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.

**CKSD Curriculum
Unit Template
Course/Subject/Grade Level?
Suggested Length of Unit – _____ Days
Instructor:**

Unit title and short description

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Major Academic Standards Addressed

Concepts – Content — **What students should know**

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Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

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Essential Questions – meant to challenge study to ponder, question and query

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Assessments- Assessments should be directly related to the objectives identified for students in this unit.

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Best Instructional Practice(s): Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.

**CKSD Curriculum
Unit Template
Course/Subject/Grade Level?
Suggested Length of Unit – _____ Days
Instructor:**

Unit title and short description

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Major Academic Standards Addressed

Concepts – Content — **What students should know**

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Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

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Essential Questions – meant to challenge study to ponder, question and query

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Assessments- Assessments should be directly related to the objectives identified for students in this unit.

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Best Instructional Practice(s): Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.

**CKSD Curriculum
Unit Template
Course/Subject/Grade Level?
Suggested Length of Unit – _____ Days
Instructor:**

Unit title and short description

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Major Academic Standards Addressed

Concepts – Content — **What students should know**

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Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

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Essential Questions – meant to challenge study to ponder, question and query

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Assessments- Assessments should be directly related to the objectives identified for students in this unit.

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Best Instructional Practice(s): Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.