

Jasper City Schools Curriculum Map

Geometry B

Course Name: Geometry B			
Unit Name: Unit 7 Ratios and Proportions			
Time Frame:	Weeks 1-3		
Unit Standards	<p>E.1.c: Identify similar figures and use ratios and proportions to solve mathematical and real-world problems (e.g., finding the height of a tree using the shadow of the tree and the height and shadow of a person)</p> <p>E.1.d: Use the definition of similarity to establish the congruence of angles, proportionality of sides, and scale factor of two similar polygons</p> <p>E.1.h: Identify and give properties of congruent or similar solids</p>		
Unit Essential Questions	<ol style="list-style-type: none"> How can two objects be similar? Two objects could have similar designs, patterns, shapes, sizes, or color. How does similarity in mathematics compare to similarity in everyday life? In mathematics, similarity has a more specific definition: objects or figures can be similar if they have the same shape. 		
Unit Essential Vocabulary	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ol style="list-style-type: none"> ratio proportion cross products similar polygons similar ratio scale factor midsegment of a triangle dilation </td> <td style="width: 50%; vertical-align: top;"> <ol style="list-style-type: none"> similarity transformations Scale factor of a dilation Scale model Scale drawing scale </td> </tr> </table>	<ol style="list-style-type: none"> ratio proportion cross products similar polygons similar ratio scale factor midsegment of a triangle dilation 	<ol style="list-style-type: none"> similarity transformations Scale factor of a dilation Scale model Scale drawing scale
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Resources	Textbook Kuta Worksheet Builder Examview AMSTI		
Assessment(s)	Chapter 7 Test		
Assessment Data:	<p>Chapter Test</p> <p>A –</p> <p>B –</p> <p>C –</p> <p>D –</p> <p>F –</p>		

Jasper City Schools Curriculum Map

Geometry B

Course Name: Geometry B

Unit Name: Unit 8 Right Triangles and Trigonometry

Time Frame: Weeks 4-8

Unit Standards

D.2.d: Solve problems involving the relationships formed when the altitude to the hypotenuse of a right triangle is drawn

D.2.e: Apply the Pythagorean Theorem and its converse to triangles to solve mathematical and real-world problems (e.g., shadows and poles, ladders)

D.2.f: Identify and use Pythagorean triples in right triangles to find lengths of the unknown side

E.1.g: Determine the geometric mean between two numbers and use it to solve problems (e.g., find the lengths of segments in right triangles)

H.1.a: Apply properties of 45° - 45° - 90° and 30° - 60° - 90° triangles to determine lengths of sides of triangles

H.1.b: Find the sine, cosine, and tangent ratios of acute angles given the side lengths of right triangles

H.1.c: Use trigonometric ratios to find the sides or angles of right triangles and to solve real-world problems (e.g., use angles of elevation and depression to find missing measures)

Unit Essential Questions

1. Why do we use mathematics to model real-world situations? To solve problems, understand phenomena, look for trends.

Unit Essential Vocabulary

1. geometric mean	9. Inverse sine
2. Pythagorean triples	10. Inverse cosine
3. ordered triple	11. Inverse tangent
4. trigonometry	12. Angle of elevation
5. trigonometric ratio	13. Angle of depression
6. sine	14. Law of sines
7. cosine	15. Law of cosines
8. tangent	

Resources

Textbook
Kuta Worksheet Builder
Examview

Assessment(s) Chapter 8 Test

Assessment Data:

Chapter Test

A –

B –

C –

D –

F –

Jasper City Schools Curriculum Map

Geometry B

Course Name: Geometry B																									
Unit Name: Unit 10 Circles																									
Time Frame:	Weeks 12-15																								
Unit Standards	<p>D.3.a: Identify and define line segments associated with circles (e.g., radii, diameters, chords, secants, tangents)</p> <p>D.3.b: Determine the measure of central and inscribed angles and their intercepted arcs</p> <p>D.3.c: Find segment lengths, angle measures, and intercepted arc measures formed by chords, secants, and tangents intersecting inside and outside circles</p> <p>D.3.d: Solve problems using inscribed and circumscribed polygons</p> <p>F.1.d: Find arc lengths and circumferences of circles from given information (e.g., radius, diameter, coordinates)</p> <p>G.1.d: Write equations for circles in standard form and solve problems using equations and graphs</p>																								
Unit Essential Questions	1. How can circles be used? Circles can be used for their shape, to model a circular object, or for their properties, or to model an equal distance around a certain point.																								
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Assessment(s)	Chapter 10 Test																								
Assessment Data:	<p><u>Chapter Test</u></p> <p>A –</p> <p>B –</p> <p>C –</p> <p>D –</p> <p>F –</p>																								

Jasper City Schools Curriculum Map

Walker High School

Geometry B

Course Name: Geometry B

Unit Name: Unit 11 Areas of Polygons and Circles

Time Frame: Weeks 10-11

Unit Standards

E.1.f: Apply relationships between perimeters of similar figures, areas of similar figures, and volumes of similar figures, in terms of scale factor, to solve mathematical and real-world problems

F.1.a: Find the perimeter and area of common plane figures, including triangles, quadrilaterals, regular polygons, and irregular figures, from given information using appropriate units of measurement

F.1.b: Manipulate perimeter and area formulas to solve problems (e.g., finding missing lengths)

F.1.c: Use area to solve problems involving geometric probability

F.1.d: Find arc lengths and circumferences of circles from given information (e.g., radius, diameter, coordinates)

F.1.e: Find the area of a circle and the area of a sector of a circle from given information (e.g., radius, diameter, coordinates)

Unit Essential Questions

1. How can decomposing and recomposing shapes help us build our understanding of mathematics? By doing so, you can visualize how different formulas are developed; you can solve problems involving composite figures.

Unit Essential Vocabulary

1. base 2. height 3. perimeter 4. area 5. parallelogram 6. triangle 7. sector of a circle 8. apothem	9. Center of a regular polygon 10. Radius of a regular polygon 11. Composite figure
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Resources

Textbook
 Kuta Worksheet Builder
 Examview
 AMSTI

Assessment(s) Chapter 11 Test

Assessment Data:

Chapter Test

A –
 B –
 C –
 D –
 F –

Jasper City Schools Curriculum Map

Geometry B

Course Name: Geometry B

Unit Name: Unit 12 Surface Area and Volume

Time Frame: Weeks 16-17

Unit Standards

D.4.a: Identify and classify prisms, pyramids, cylinders, cones, and spheres and use their properties to solve problems

D.4.b: Describe and draw cross sections of prisms, cylinders, pyramids, and cones

E.1.h: Identify and give properties of congruent or similar solids

F.2.a: Find the lateral area, surface area, and volume of prisms, cylinders, cones, and pyramids in mathematical and real-world settings

F.2.b: Use cross sections of prisms, cylinders, pyramids, and cones to solve volume problems

F.2.c: Find the surface area and volume of a sphere in mathematical and real-world settings

Unit Essential Questions

1. How are two-dimensional figures and three dimensional figures related? The faces and bases of three-dimensional figures are two-dimensional figures. For example, a pyramid has faces that are triangles and a base that is a polygon.

Unit Essential Vocabulary

1. right solid	9. height	17. prisms
2. oblique solid	10. Lateral area	18. pyramid
3. isometric view	11. axis	19. cylinders
4. cross section	12. Composite solid	20. hemisphere
5. lateral face	13. Regular pyramid	21. Similar solids
6. lateral edge	14. Slant height	22. Congruent solids
7. base edge	15. Right cone	
8. altitude	16. Oblique cone	

Resources

Textbook
Kuta Worksheet Builder
Examview

Assessment(s) Chapter 12 Test

Assessment Data:

Chapter Test

A –

B –

C –

D –

F –