Understand and apply theorems about circles (Standards G.C.1-4)		
Standard II.G.C.1: Prove that all circles are similar.		
Concepts and Skills to Master		
Recognize that any two circles are related by a dilation, possibly along with a translation.		
Write up a formal argument explaining their reasoning for why two circles must be similar.		
Related Standards: Current Course	Related Standards: Future Courses	
<u>II.G.C.2; II.G.C.5; II.G.SRT.1; II.G.SRT.2; II.G.SRT.5; II.G.GPE.1;</u>	III.F.TF.1; III.G.MG.1; III.G.MG.3;	
II.G.GPE.4		

## **Support for Teachers**

# Critical Background Knowledge

- Correctly name shapes (K.G.2)
- Know the area and circumference of a circle (7.G.4)
- Know precise definition of circle (I.G.CO.1)

## Academic Vocabulary

### Resources

<u>Curriculum Resources</u>: https://www.uen.org/core/core.do?courseNum=5620#71552

Circles Core Guide Secondary Math II

#### Understand and apply theorems about circles (Standards G.C.1-4)

**Standard II.G.C.2:** Identify and describe relationships among inscribed angles, radii, and chords. *Relationships include the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.* 

#### Concepts and Skills to Master

- Explore various properties related to circles (include measures of central, inscribed and circumscribed angles)
- Form conjectures about the relationships they find.
- Develop justifications for why their conjectures work.

Related Standards: Current Course	Related Standards: Future Courses
II.G.C.1; II.G.C.3; II.G.C.4; II.G.C.5; II.G.GPE.1; II.G.GPE.4, II.G.C0.9,	III.G.MG.1; III.G.MG.3
II.G.C0.10, II.G.C0.11	

### **Support for Teachers**

#### Critical Background Knowledge

- Correctly name shapes (K.G.2)
- Draw points, lines, lines segments, ray, angles, and parallel and perpendicular lines. Identify these in two-dimensional figures. (4.G.1)
- Know the area and circumference of a circle (7.G.4)
- Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment (I.G.CO.1)

## Academic Vocabulary

inscribed angle, central angle, circumscribed angle, chord, tangent line

#### Resources

<u>Curriculum Resources</u>: https://www.uen.org/core/core.do?courseNum=5620#71552