

# Unit 6 - Circles:

## Learning Targets and Success Criteria:

- I can identify and define different segments in a circle.  
I know I can because:
  - I can identify and give a precise definition of:
    - Radius
    - Chord
    - Diameter
    - Secant
    - Tangent
- I can find missing lengths in a circle involving the radius and a tangent of a circle.  
I know I can because:
  - I can understand the radius of a circle is perpendicular ( $90^\circ$ ) to the tangent where the radius intersects the circle.
  - I can use the Pythagorean Theorem to find missing lengths that involve a radius and tangent intersection.
- I can find missing lengths in a circle involving 2 tangents that intersect at a point.  
I know I can because:
  - I can understand that 2 tangents that intersect at a point create 2 congruent segments.
  - I can create an equation to solve for x.
- I can identify and define different types of angles and arcs in a circle.  
I know I can because:
  - I can identify and give a precise definition of:
    - Central Angle
    - Inscribed Angle
    - Arc
    - Minor Arc
    - Major Arc
    - Semicircle
    - Intercepted Arc
- I can find measures of missing central angles or arcs in a circle.  
I know I can because:
  - I can identify that circles are  $360^\circ$
  - I can identify that semicircles are  $180^\circ$
  - I can identify that central angles and their intercepted arcs are congruent.
- I can find measures of missing inscribed angles and their intercepted arcs in a circle.  
I know I can because:
  - I can identify the intercepted arc for an inscribed angle.
    - I can multiply inscribed angles by 2 to find their intercepted arcs.
    - I can divide intercepted arcs by 2 to find the angle for that arc.
    - I can use the fact that circles are  $360^\circ$  and semicircles are  $180^\circ$  to find other missing arcs and angles involving inscribed angles.
- I can find missing angles and arcs involving tangents, chords, and secants of circles.  
I know I can because:
  - I can identify what types of segments are given. (chord, secants, tangents)
  - I can choose the appropriate formula based on the relationship between the types of segments given such as:
    - Tangent-Secant (angle on the circle)
    - Secant-Secant (angle outside of circle)
    - Chord-Chord (angle inside of circle)
  - I can use the appropriate formula to find the missing arc or angle.
- I can calculate arc length and area of a sector for circles.  
I know I can because:

- o I can identify the angle measure (degrees) for the sector or arc.
- o I can identify the radius of the circle.
- o I can choose the appropriate formula for either arc length or area of a sector based on the problem.
- o I can solve real-world problems involving arc length and area of sectors.

## **Day 1a & 1b:**

### **Learning Targets and Success Criteria:**

#1 (see above)

**Standard:** MGSE9-12.G.CO.1-5

### **Introduction/Connection:**

Daily 10 Lines and Segments in Circles Graphic Organizer (After Trig Test)

### **Direct Instruction/Guided Practice/Assessment Strategy/Assignment:**

Circles WS (guided) - After Trig Test

Circle Basics

Ticket out the door

Tangents of Circles Properties Notes (Guided)

Tangents of Circles Properties Practice WS

Vocab Practice WS

**Summarizers:** Discuss and correct questions they thought were difficult.

**Homework:** None :)

## **Day 2:**

### **Learning Targets and Success Criteria:**

#1 & 2 (see above)

**Standard:** MGSE9-12.G.CO.1-5

### **Introduction/Connection:**

Daily 10 & Geometry Circle Vocab (top section only)

### **Direct Instruction/Guided Practice/Assessment Strategy/Assignment:**

Tangent Lines Properties Notes

Practice

Finish Bottom Section of Geometry Circle Vocab WS

iXL: U:1 (90 SmartScore)

**Summarizers:** Discuss and correct questions they thought were difficult.

**Homework:** None :)

### **Day 3:**

**Learning Targets and Success Criteria:**

#1 & 2 & 3 (see above)

**Standard:** MGSE9-12.G.CO.1-5

**Introduction/Connection:**

Daily 10

**Direct Instruction/Guided Practice/Assessment Strategy/Assignment:**

Tangents of Circles Properties Quiz Review

Tangents & Circle Basics WS

Quiz

Fill out Arcs and Angles Graphic Organizer

**Summarizers:** Discuss and correct questions they thought were difficult.

**Homework:** None :)

### **Day 4:**

**Learning Targets and Success Criteria:**

#4 & 5 (see above)

**Standard:** MGSE9-12.G.CO.1-5

**Introduction/Connection:**

Daily 10

**Direct Instruction/Guided Practice/Assessment Strategy/Assignment:**

Go over Arcs and Angles Graphic Organizer

Graphic Organizer #2

Arcs and Central Angles Notes (wagon wheels)

Practice

iXL U:2 (SmartScore 60)

**Summarizers:** Discuss and correct questions they thought were difficult.

**Homework:** None :)

## **Day 5:**

**Learning Targets and Success Criteria:**

#4 & 5 & 6 (see above)

**Standard:** MGSE9-12.G.CO.1-5

**Introduction/Connection:**

Daily 10

**Direct Instruction/Guided Practice/Assessment Strategy/Assignment:**

Central & Inscribed Angles Graphic Organizer

Inscribed Angles Graphic Organizer

Inscribed Angles Notes

Practice

**Summarizers:** Discuss and correct questions they thought were difficult.

**Homework:** None :)

## **Day 6:**

**Learning Targets and Success Criteria:**

#4 & 5 & 6 (see above)

**Standard:** MGSE9-12.G.CO.1-5

**Introduction/Connection:**

Daily 10

**Direct Instruction/Guided Practice/Assessment Strategy/Assignment:**

Arc Review

iXLs U:11 (65 SmartScore) U:14 (60 SmartScore) U:14 (extra credit)

**Summarizers:** Discuss and correct questions they thought were difficult.

**Homework:** None :)

## **Day 7:**

**Learning Targets and Success Criteria:**

#4 & 5 & 6 (see above)

**Standard:** MGSE9-12.G.CO.1-5

**Introduction/Connection:**

Daily 10

**Direct Instruction/Guided Practice/Assessment Strategy/Assignment:**

Central and Inscribed Angles Quiz Review

Quiz

Segment Lengths in Circles Notes

Practice (evens)

**Summarizers:** Discuss and correct questions they thought were difficult.

**Homework:** None :)

## **Day 8:**

**Learning Targets and Success Criteria:**

#7 & 8 (see above)

**Standard:** MGSE9-12.G.CO.1-5

**Introduction/Connection:**

Daily 10 Secant-Secant & Tangent-Secant Graphic Organizer

**Direct Instruction/Guided Practice/Assessment Strategy/Assignment:**

Secant-Secant & Tangent-Secant Notes

Practice

10.4 WS

**Summarizers:** Discuss and correct questions they thought were difficult.

**Homework:** None :)

## **Day 9:**

**Learning Targets and Success Criteria:**

#7 & 8 (see above)

**Standard:** MGSE9-12.G.CO.1-5

**Introduction/Connection:**

Daily 10

**Direct Instruction/Guided Practice/Assessment Strategy/Assignment:**

Area of a Sector and Arc Length Notes

Practice

**Summarizers:** Discuss and correct questions they thought were difficult.

**Homework:** None :)

## **Day 10:**

**Learning Targets and Success Criteria:**

All Unit 6 Learning Targets (see above)

**Standard:** MGSE9-12.G.CO.1-5

**Introduction/Connection:**

Daily 10

**Direct Instruction/Guided Practice/Assessment Strategy/Assignment:**

Test Review 1

Test Review 2

**Summarizers:** Discuss and correct questions they thought were difficult.

**Homework:** None :)

## **Day 11:**

**Learning Targets and Success Criteria:**

All Unit 6 Learning Targets (see above)

**Standard:** MGSE9-12.G.CO.1-5

**Introduction/Connection:**

Daily 10

**Direct Instruction/Guided Practice/Assessment Strategy/Assignment:**

Circles Test

**Summarizers:** Discuss and correct questions they thought were difficult.

**Homework:** None :)