LEARNING AS ONE NATION
Expanded Project

JHS LEARNING ACTIVITY

Name: _____ **Grade/Score:** _____
Grade and Section: _____ **Date:** _____

Subject *(Check or choose from below.)*

- ☐ Religion/Values Education
- ☐ Natural Sciences
- ☐ Araling Panlipunan
- ☐ Filipino
- ☐ English
- ☐ Math
- ☐ TLE / ICT
- ☐ MAPEH
- ☐ HGP _____

Type of Activity *(Check or choose from below.)*_____

- ☐ Concept Notes
- ☐ Skills: Exercise / Drill
- ☐ Performance Task
- ☐ Illustration
- ☐ Formal Theme
- ☐ Informal Theme
- ☐ Others: _____

Activity Title: The Circle: Chords, Secants, Tangents and Inscribed Angles

Learning Target: To define important terms used in studying circles.

References: *(Author, Title, Pages)*
1) F.B. Orines, et al., Next Century Mathematics, p.221
2) V.J.A. Dublin, M. V. Bernido, CVIF Learning Activities

A **chord** of a circle is a line **segment** formed by connecting two points on the circle. In other words, the endpoints of the line segment should be points on the circle.

Example: The segment $\overline{VS}$ is a chord of the given circle.

A **secant** of a circle is the line formed by extending a chord. In other words, a secant is a **line** that intersects a circle at exactly two points.

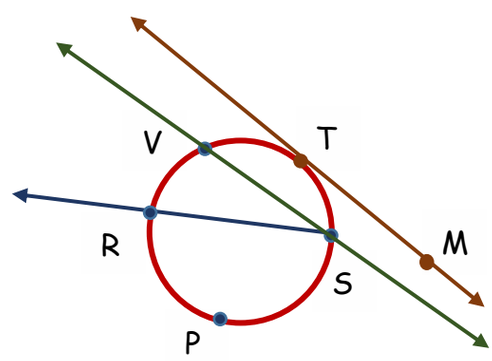
Example: The line $\overleftrightarrow{VS}$ is a secant of the given circle.

A **tangent** of a circle is a **line** that touches the circle at only one point. This point is called the point of tangency.

Example: The line $\overleftrightarrow{TM}$ is a tangent of the given circle.

An **inscribed angle** of a circle is an angle which is formed inside the circle whose **vertex** lies on the circle. The sides of an inscribed angle contain chords of the circle.

Example: The angle $\angle RSV$ is an inscribed angle.



Exercises: Refer to the figure and give what is asked.

1. Draw the inscribed angle $\angle VPS$ with vertex at point P. (Use a different color.)
   Identify and write the chords that form the sides of this inscribed angle.
2. Draw a tangent line that touches the circle at point P.
3. Find the center of the circle. Draw a line from the center of the circle to the point of tangency. Measure the angle between this line and the tangent. What is the measure of the angle?