Graphic Organizer

- You may wish to provide the diagrams for each key word. Alternatively, write the definitions and have students draw the diagrams.

Math Link: Wrap It Up!

Planning Notes

- Review and discuss the expectations for a logo versus a piece of art. You may wish to bring in some logos to show the class.
- Provide students with **BLM 10–4 Circles Template**.

Common Errors

- Students may miss one of the required properties.

R$_x$ Provide a checklist for students to use once they have added each property to their design.

The chart below shows the Rubric for the Math Link: Wrap It Up! and provides notes that specify how to identify the level of specific answers for this project.

Score/Level	Holistic Descriptor	Specific Question Notes
5 **(Standard of Excellence)**	❑ Applies/develops **thorough** strategies and mathematical processes for making **significant** comparisons/connections that demonstrate a **comprehensive** understanding of how to develop a complete solution ❑ Uses **efficient** and **effective** procedures that may contain a **minor mathematical error** that does not affect understanding ❑ Uses **significant** mathematical language to explain understanding and provides **in-depth** support for the conclusion	• provides a complete and correct solution **Note:** Properties include – central angles – inscribed angles and their relationship to arcs and central angles – chord properties, including perpendicular bisectors – tangent properties, including the Pythagorean relationship
4 **(Above Acceptable)**	❑ Applies/develops **thorough** strategies and mathematical processes for making **reasonable** comparisons/connections that demonstrate a **clear** understanding ❑ Uses **reasonable** procedures that may contain a **minor mathematical error** that may hinder the understanding in one part of a complete solution ❑ Uses **appropriate** mathematical language to explain understanding and provides **clear** support for the conclusion	• provides a complete response with one missing or incorrectly identified circle property *or* • provides a complete and correct response using one circle only; all properties are clearly identified and correct
3 **(Meets Acceptable)**	❑ Applies/develops **relevant** strategies and mathematical processes for making **some** comparisons/connections that demonstrate a **basic** understanding ❑ Uses **basic** procedures that may contain a **major mathematical error** or **omission** ❑ Uses **common** language to explain understanding and provides **minimal** support for the conclusion	• correctly completes a circle design, demonstrating an understanding of central and inscribed angles and chord properties *or* • correctly completes a circle design with tangent properties that use inscribed and central angles and chord properties, but the properties are not explicitly stated
2 **(Below Acceptable)**	❑ Applies/develops **some relevant** mathematical process for making minimal comparisons/ connections that lead to a **partial solution** ❑ Uses **basic** procedures that may contain several major mathematical errors ❑ Communication is **weak**	• correctly completes a circle diagram and demonstrates an understanding of – central and inscribed angles *or* – chord properties and how measures are calculated *or* – the links between tangent properties and angles or chords, but they may not be completely developed
1 **(Beginning)**	❑ Applies/develops an **initial start** that may be **partially correct** or could have led to a correct solution ❑ Communication is **weak** or **absent**	• provides a correct start to a circle diagram indicating some elements of the circle, but makes few links to the properties using these elements *or* • correctly completes a circle design and indicates the measure of a central angle or a basic chord property