Challenge

Planning Notes

- If possible, have students bring a dream catcher to school or show designs of dream catchers on an interactive whiteboard or overhead projector.
- Provide students with **BLM 10–9 Challenge Dream Catcher**.
- Have students mark 5 cm from the centre once they have drawn the diameter.
- You may wish to demonstrate each step with students on an overhead projector or interactive whiteboard.
- Students may benefit from drawing each row of webbing in a different colour.
- Have students find a central angle and colour it on their design. Students may work in pairs to find different inscribed angles and colour them on their designs. Remind students that the inscribed angle shares the same arc as the central angle.

Common Errors

- Students with poor dexterity may have trouble creating their dream catchers.

R$_x$ Encourage students to work with a partner to help hold the ruler or protractor in place. Draw the first eight markings on the circle to get them started. Have students attach their worksheet to a clipboard to keep it from sliding when they are measuring.

The chart below shows the Rubric for the Challenge 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 ❑ Procedures are **efficient** and **effective** and 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:** If #5 or #6 is not correct or attempted but the remainder of the question is correct, a score of 5 is still warranted.
4 **(Above Acceptable)**	❑ Applies/develops **thorough** strategies and mathematical processes for making **reasonable** comparisons/connections that demonstrate a **clear** understanding ❑ Procedures are **reasonable** and 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 to all parts of the question with weak communication or justification in one part *or* • provides a complete and correct response based on a minor calculation error in #4 that does not hinder understanding
3 **(Meets Acceptable)**	❑ Applies/develops **relevant** strategies and mathematical processes for making **some** comparisons/connections that demonstrate a **basic** understanding ❑ Procedures are **basic** and may contain a **major mathematical error** or **omission** ❑ Uses **common** language to explain understanding and provides **minimal** support for the conclusion	• correctly completes #1, #2, and the drawings for #3 and/or #5 **Note:** Complete drawings for both #3 and #5 do not improve the score. *or* • provides a correct and complete response to #1 to #3 *or* • provides a complete and correct response to #2 and #3 *or* • provides correct partial solutions to all parts of the problem
2 **(Below Acceptable)**	❑ Applies/develops **some relevant** mathematical processes for making minimal comparisons/ connections that lead to a **partial solution** ❑ Procedures are **basic** and may contain **several major mathematical errors** ❑ Communication is **weak**	• correctly completes #1 and makes a significant start to either part in #2 *or* • provides a correct response to #4 *or* • correctly completes #2 based on an incorrect #1; makes a significant start to #3
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 #1 *or* • provides a correct response to #2 based on an incorrect #1 *or* • provides a correct start to #4