

Title of Book: Sir Cumference and the First Round Table
Author: Cindy Neuschwander
Publisher: Charlesbridge Publishing Co./ 1997
ISBN: 1-57091-152-5

Grade Levels for Recommended Use: 3rd – 8th

(3.8) Geometry and spatial reasoning. The student uses formal geometric vocabulary. The student is expected to identify, classify, and describe two- and three-dimensional geometric figures by their attributes.

Brief Summary: King Arthur has a problem. When his knights get together, they sit at such a long table that everyone has to shout to be heard. Sir Cumference, his wife Lady Di of Ameter, and their son Radius “measure up” to the challenge of building a better table.

Materials needed:

Materials: measuring tapes, 4-6 various sizes of lids in zip-lock bags

Suggested Activity:

Engage: Read the book orally as a good introduction to the vocabulary used in describing the perimeter of a circle by models of *diameter*, *radius*, and *circumference* of a circle. **Explore:**

Students work in groups of 2-4. Each group is given a zip-lock bag with 4-6 various sizes of lids, ranging from very small to very large. Also in the zip-lock bag there should be a tape measure to be used for measuring circumference, diameter, and radius.

Students measure the circumference of each lid using the tape measure. Diameter and radius are measured using the tape measure. Record each measurement. Stress the importance of measuring carefully and it is a good idea to ask students to measure twice for accuracy. Also, check computations twice.

As students are measuring lids, indicate that they should be looking for patterns and/or relationships in all measurements. If they think they have discovered the pattern, use it to check further measurements and be ready to share and defend the pattern found.

As students record their data, check for accuracy, etc. When each group has measured each lid twice and data is recorded, have them share their data with the class, one group at a time. This data will be recorded on the chalkboard, using the same chart they used to record individual data. This should give you several pieces of data to study for patterns and relationships.

If students still have not found relationships, ask them to look at the relationship between diameter and radius...study it closely. Then, look at the relationship between diameter and circumference; study it carefully.

Students will be amazed that no matter what size the lid, the diameter is always twice the radius and the circumference is always a little bit more than 3 times the diameter...or

pi!!!!

Note: Be sure to celebrate National Pi Day on March 14 (3.14).

Adapted by Dr. Faye Bruun, 2012

