

Lesson Title: Exploring π
Unit: Math Spreadsheets
Grade Level: 6 th Grade
Estimated time requirement: 1 class period
Summary (25-50 words): Students will measure the circumference and diameter of circular items. Students will create spreadsheets that will divide the circumference by the diameter to determine the value of Pi. We will evaluate how to be more precise in our measurements.
Objectives: <ul style="list-style-type: none"> • Measure the circumference and diameter of circular objects. • Use a spreadsheet to calculate the value of Pi.
Texas Essential Knowledge and Skills: 4B, 6C, 8B, 12A
Assessment: <ul style="list-style-type: none"> • Completion of spreadsheet and student hand-out.
Materials: <ul style="list-style-type: none"> • Student hand-out • Computer with spreadsheet program • String • Metric measuring tapes or sticks.
Resources: <ul style="list-style-type: none"> • <u>Glencoe Mathematics Applications and Connections</u>, McGraw-Hill Companies, Inc.
Prior Knowledge/Skills:
Procedures: Have students bring circular objects from home. (One variation might be that students must bring edible objects.) Each student must measure the circumference and diameter of at least 10 of the objects. Students will then set the formula on a spreadsheet to calculate the value of Pi (circumference divided by the diameter). Students will then input the circumference and diameter of each object and calculate the value of PI for each object. The student hand-out explains how to set up the spreadsheet for this activity.
Modifications: <ul style="list-style-type: none"> • Students can work with a partner if necessary to complete the activity.
Technology Infusion: <ul style="list-style-type: none"> • Use a spreadsheet program such as EXCEL to find the value of Pi.
Cultural Connections: You could investigate circular objects in architecture or art found in different areas of the world. Students can determine if the value of Pi is the same throughout the world.
Family Connection: Families can help students gather circular items.
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