



# Gold Seal Lesson

<b>Author(s):</b> <i>Judith P. Wood</i>			<b>Lesson Title</b> <i>Pi Day Activity</i>			
<b>Grade Span</b>			<b>ICLE Application Model</b>			
<i>K-4</i> <i>X</i>	<i>5-8</i>	<i>9-12</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i> <i>X</i>

### Instructional Focus:

#### Measurement

Students use a variety of tools and techniques of measurement in a problem-solving situation. Students communicate the reasoning used in solving these problems.

#### Problem-Solving and Mathematical Reasoning

Students apply a variety of problem-solving strategies to investigate and solve problems from across the curriculum as well as from practical applications.

#### Tools and Technology

Students use appropriate tools and technologies to model, measure, and apply the results in a problem-solving situation. Students communicate the reasoning used in solving these problems.

### Performance Task

Discuss Pi, its relationship, equivalent decimal value, and irrational numbers. Student groups may also research Pi on the net. Have them estimate the number of place values that will be used in this project. They write a report on Pi, its history & other basic information.

Have the students, using number stencils, put the decimal value for Pi on the walls of the school. Start at a focal point with the whole number 3. Make a decimal point that is obvious and then put up the values for the decimal equivalent—continuing on the walls in a logical progression until you return to the whole value 3. This may be done on the top of the wall similar to a stencil.

The students will then write an essay telling what they have learned from this project about Pi.  
Do this on March 14 =====  $3/14 = 3.14$

### ICLE Essential Skills

Understand the definitions and properties of rational and irrational numbers. (m 19)

Apply arithmetic methods for obtaining a rational approximation of an irrational number (e.g., radical). (m 68)

Gather information from a variety of sources, including electronic sources, and summarize, analyze, and evaluate its use for a report. (ela 3)

Draft a report that engages an audience and is concise, clear, well-organized, accurate, and informative. (ela 12)

**Scoring Guide:**

**4 Points =** The student stays on the task, demonstrating an understanding of the problem-solving process. The written activities show a good understanding of the topic. All writing uses proper English conventions and relays the student's ideas.

**3 Points =** The student stays on the task most of the time. The student demonstrates an understanding of the problem-solving process. The written activities show a good understanding of the topic. Most of the writing uses proper English conventions and relays most of the student's ideas.

**2 Points =** The student has difficulty staying on task. He/she demonstrates some understanding of the problem-solving process but has difficulty expressing him/herself in the written part of the task. Some of the writing uses proper English conventions.

**1 Point =** The student has much difficulty staying on task. There is little understanding of the problem-solving process. The student has difficulty expressing him/herself and does not use proper English conventions.

**Keywords**

<b>English Language Arts</b>	<b>Mathematics</b>	<b>Science</b>
<b>Reading</b>	<b>Algebra Estimation Irrational Numbers</b>	<b>Earth Science</b>
<b>Writing Composition Conventions Elements of Writing Organization</b>	<b>Geometry</b>	<b>Life Science</b>
<b>Communications</b>	<b>Statistics Prediction</b>	<b>Chemistry</b>
<b>Literature</b>	<b>Calculus</b>	<b>Physics</b>
<b>Other</b>	<b>Trigonometry</b>	<b>Other</b>
	<b>Other</b>	