

MATH COMPETENCY CURRICULUM GUIDE

Exit Competency B: Students will demonstrate competency in measurement including:

- 1. Proper use of various instruments of measure**

Objectives:

Assessment:

Possible Resources:

Possible Strategies:

By the end of 3rd grade, students will:

1. Demonstrate use of a ruler and a yardstick by measuring length to the nearest inch.

Time:

- 1st 2-5 hours
2nd 1-2 weeks
3rd 36 hours. Mastery.

B-1 Assessment Examples
**EXAMPLES OF THE TYPES OF
 ALT ASSESSMENT ACTIVITIES
 THAT CAN BE USED TO ASSESS
 THE LEARNING OBJECTIVES**

1. Provided Instructional Resources:
 S Clocks
 S Houghton Mifflin Mathematics©2005, Houghton Mifflin Co., 2005
 S Rulers
 S Yardsticks
 Supplementary Resources:
 S Clock bingo
 S Clock flashcards
 S Classroom calendar
 S Holt Mathematics, Holt, Rinehart & Winston, 1981
 S How Big Is a Foot? (literature)
 S Judy clock - classroom and student size
 S Manipulatives - inch worms
 S Rulers with only 1" markings and a zero to help with starting point from Nasco
 S The Biggest Snowman
 S 50 Problem Solving Lessons, M. Burns, Math Solutions pub, 1996
 S Investigations in Numbers, Data and Space, Pearson Scott Foresman

1. Instructional Strategies could include:
 S Centers
 S Direct instruction with guided and independent practice
 S Menus

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<p>2. Demonstrate use of a calendar by:</p> <ul style="list-style-type: none"> -knowing the names of the days of the week and the months in a year -identifying the date, including the year -know the number of days in a week, month and year <p>Time:</p> <p>K: Daily, 5-15 mins.</p> <p><u>1st</u>: Daily, 5-15 mins.</p> <p><u>2nd</u>: Ongoing</p> <p><u>3rd</u>: Mastery</p>	<p><u>B-1 Assessment Examples</u></p> <p>EXAMPLES OF THE TYPES OF ALT ASSESSMENT ACTIVITIES THAT CAN BE USED TO ASSESS THE LEARNING OBJECTIVES</p>	<p>2. Provided Instructional Resources:</p> <p>S Blank overhead calendar transparency and matching blank calendars for students</p> <p>S <u>Houghton Mifflin Mathematics©2005</u></p> <p>Supplementary Resources:</p> <p>S Calendar activity (monthly assignment)</p> <ul style="list-style-type: none"> . Bulletin board . Daily calendar sponge . Make a monthly calendar <p style="padding-left: 40px;">Resource available at D.O. Curriculum Office</p> <p>S <u>Family Math</u>, University of California, Berkeley, Lawrence Hall of Science</p> <p>S Greg and Steve tape - volume 1</p> <p>S <u>Math Their Way</u></p> <p>S Math Their Way pocket chart calendar and pocket chart days of week calendar with yesterday, today and tomorrow cards</p> <p>S Math Their Way Summary Newsletter, 1988</p> <p>S Sequencing cards, Monday-Friday</p> <p>S Sequencing cards, January-December</p> <p>S Songs, e. g., "There are 7 Days"</p> <p>S Spanish Instruction</p> <p>S <u>Why Do Seasons Change,?</u> D. K.</p>	<p>2. Instructional Strategies could include:</p> <p>-Calendar Activities</p>

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Objectives:	Assessment:	Possible Resources:	Possible Strategies:
<p>3. Demonstrate use of a clock by reading an analog clock to the nearest five minutes after the hour.</p> <p>Time:</p> <p><u>1st</u> Daily instruction for 10 minutes x month. Mastery of telling time to ½ hour and hour.</p> <p><u>2nd</u>: Ongoing; introduction to the nearest 5 minutes.</p> <p><u>3rd</u>: Ongoing; mastery</p> <p>4. Given two or three similar containers (same shape, different</p>	<p><u>B-1 Assessment Examples</u></p> <p>EXAMPLES OF THE TYPES OF ALT ASSESSMENT ACTIVITIES THAT CAN BE USED TO ASSESS THE LEARNING OBJECTIVES</p>	<p>Family Learning</p> <p>S <u>Investigations in Numbers, Data and Space</u></p> <p>3. Provided Instructional Resources:</p> <p>S <u>Houghton Mifflin Mathematics©2005</u>, Houghton Mifflin Co., 2005</p> <p>Supplementary Resources:</p> <p>S Class schedule</p> <p>S Clocks</p> <ul style="list-style-type: none"> . Large classroom-Judy Instructo . Small individual clocks . Overhead clock . Clock stamps . Making paper plate clocks . Student made, provided in back of student book <p>S Computer program - Clock Shop</p> <p>S Daily Oral Math</p> <p>S Measure for Treasure Time, K-4</p> <p>S MECC computer program - Clock Works</p> <p>S Teacher created charts and worksheets</p> <p>S Time bingo/+ centers</p> <p>S Time flashcards</p> <p>S Time Quizmo (game)</p> <p>S Treasure Math Storm</p> <p>S TV viewing guide</p> <p>S <u>Investigations in Numbers, Data and Space</u></p>	<p>3. Instructional Strategies could include:</p> <p>S Teach students to count by 5 before introducing telling time to the nearest 5 minutes.</p>

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<p>-using a centimeter ruler or meter stick to measure to the nearest centimeter</p> <p>-using a metric measuring tape to measure to the nearest centimeter or meter</p> <p>Time:</p> <p><u>4th</u> : Introduce to 1/4 inch with rulers, sticks, tapes</p> <p><u>5th</u> : Ongoing</p> <p><u>6th</u> : Mastery</p> <p>2. Demonstrate the use of a balance or scale by:</p> <p>-weighing to within a gram</p> <p>-weighing to within an ounce or pound</p> <p>Time:</p> <p><u>4th</u> : Introduce to grams and ounce</p> <p><u>5th</u> : Ongoing</p> <p><u>6th</u> : Mastery</p>	<p><u>B-1 Assessment Examples</u></p> <p>EXAMPLES OF THE TYPES OF ALT ASSESSMENT ACTIVITIES THAT CAN BE USED TO ASSESS THE LEARNING OBJECTIVES</p>	<p>2. Provided Instructional Resources:</p> <p>S <u>Houghton Mifflin Mathematics©2005</u></p> <p>S Balance scales that weigh both grams and ounces/pounds</p> <p>Supplementary Resources:</p> <p>S A penny = 2 grams</p> <p>S AIMS activities</p> <p style="padding-left: 20px;">. books and materials</p> <p style="padding-left: 20px;">. metric worksheets</p> <p style="padding-left: 20px;">. Banana Lesson</p> <p>S Common classroom objects</p> <p>S GEMS activities</p> <p>S <u>Grams</u>, book #3, Educational Pioneers, Inc. 1976</p> <p>S <u>Holt Mathematics Work Book</u>, Holt, 1981</p> <p>S Marilyn Burns books and</p>	<p>2. Instructional Strategies could include:</p> <p>S Centers</p> <p>S Menus</p>

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<p>3. Demonstrate the use of a measuring cup by measuring: -within the nearest milliliter -within the nearest ounce</p> <p>Time: <u>4th</u>: Introduce to millimeter and ounce <u>5th</u>: Ongoing <u>6th</u>: Mastery</p> <p>4. Demonstrate the use of a non-digital thermometer by reading temperature in Celsius or Fahrenheit to the nearest degree.</p> <p>Time: <u>4th - 5th</u>: Ongoing <u>6th</u>: Mastery</p> <p>5. Demonstrate the use of a clock by: -reading an analog clock to the minute, before and</p>	<p><u>B-1 Assessment Examples</u> EXAMPLES OF THE TYPES OF ALT ASSESSMENT ACTIVITIES THAT CAN BE USED TO ASSESS THE LEARNING OBJECTIVES</p> <p>Temperature Table</p> <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Degrees Fahrenheit</th> <th>Degrees Celsius</th> </tr> </thead> <tbody> <tr><td>100</td><td>38</td></tr> <tr><td>90</td><td>32</td></tr> <tr><td>80</td><td>27</td></tr> <tr><td>70</td><td>21</td></tr> <tr><td>60</td><td>16</td></tr> <tr><td>50</td><td>10</td></tr> <tr><td>40</td><td>4</td></tr> </tbody> </table> <p>Use the table above. The temperature dropped from 80oF to 60oF. How many degrees Celsius did it drop?</p> <p>A. 6 B. 10 <input checked="" type="checkbox"/> C. 11 D. 20 E. none of these</p>	Degrees Fahrenheit	Degrees Celsius	100	38	90	32	80	27	70	21	60	16	50	10	40	4	<p>materials</p> <p>S <u>Metric and Measurement</u> by Instructional Fair</p> <p>S <u>Investigations in Numbers, Data and Space</u></p> <p>3. Provided Instructional Resources:</p> <p>S Measuring cups (meter & standard)</p> <p>S <u>Problem Solver, 4/5/6</u>, Creative Publications</p> <p>Supplementary Resources:</p> <p>S <u>Book of Lists</u></p> <p>S Cooking cart</p> <p>S Math cart</p> <p>S Recipes</p> <p>S <u>Investigations in Numbers, Data and Space</u></p> <p>4. Provided Instructional Resources:</p> <p>S <u>Houghton Mifflin Mathematics©2005</u></p> <p>S Thermometers</p> <p style="margin-left: 20px;">. large classroom size, marked by the degree</p> <p style="margin-left: 20px;">. student size</p> <p>Supplementary Resources</p> <p>S Paper thermometers</p> <p>5. Provided Instructional Resources:</p> <p>S <u>Houghton Mifflin Mathematics©2005</u></p>	<p>3. Instructional Strategies could include:</p> <p>S Be able to read a printed scale similar to one on an actual cup</p> <p>S Centers</p> <p>S Instruction in measuring at eye level</p> <p>S Menus</p> <p>4. Instructional Strategies could include:</p> <p>S <u>Weather</u>, DCSD science kit, grade 3</p>
Degrees Fahrenheit	Degrees Celsius																		
100	38																		
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- S Calendar
- S Containers
- S Measurement tools
- S Menus
- S Science books
- S Reading Teacher's Book of Lists
- S Investigations in Numbers, Data and Space