



# The Mini Olympics

## About the plan

<b>EDUCATOR'S NAME</b>	Sandra Jo Murphy
<b>SCHOOL</b>	Caledonia Elementary
<b>DISTRICT</b>	Lowndes County
<b>GRADE LEVELS</b>	4-5
<b>SUBJECT</b>	Science
<b>UNIT/THEME</b>	Developing the Process of Measurement
<b>COMPETENCY NUMBER</b>	#10 Develop a process of measurement and the concepts related to units of measurements.
<b>OBJECTIVES</b>	<ol style="list-style-type: none"><li>1. Identify the attributes of length, weight, capacity/volume, mass, time, and temperature.</li><li>2. Computer research to discover the history, motto, and the revival of the Olympic Games.</li></ol>
<b>INSTRUCTIONAL FORMAT</b>	4-5 member teams
<b>PRIOR PREPARATION</b>	Have students discover--What do the five Olympic rings represent? When did the games begin? How long ago was that? What is the motto? How is the flame kept burning? The flame is a symbol of what? Trace the beginning of the games to present times. Have students go to MAGNOLIA. Once there, students can do a word search by typing in "Olympics" and "Olympic Games." There are numerous relevant links, such as "Important Dates in the History of the Modern Olympic Games (Facts at a Glance)," "Olympic Game Profiles," "Ancient Greece," and "The Winter Olympics." Students can answer the worksheet questions listed under "Lesson Plans."
<b>MATERIALS NEEDED</b>	<ul style="list-style-type: none"><li>• Paper plates</li><li>• Cotton Balls</li><li>• Drinking straws</li><li>• M &amp; M candies or marbles</li><li>• Sponges</li><li>• Containers of water</li><li>• Tape Measures</li><li>• Meter sticks</li><li>• Balances</li></ul>

	<ul style="list-style-type: none"> <li>• Graduated cylinders</li> <li>• Ice cubes</li> <li>• Popsicle sticks</li> <li>• Thermometers</li> <li>• Chart paper for recording the guess, actual measure, and score for each team</li> <li>• Mini Metric Olympics Worksheets</li> </ul>
<b>DURATION OF ACTIVITY</b>	Several days
<b>FORMAL ASSESSMENT</b>	Students will soon determine that the weight of the objects will affect the distance in which it will travel.

## Activity

Big Foot Contest, Paper Plate Discus, Cotton Ball Shot Put, Drinking Straw Javelin, Right-Handed M&M Grab, Left-Handed Sponge Squeeze, How Hot is Hot, and Ice Cube Curling

### Task Cards:

*Big Foot Contest* -- Estimate the length of your "big foot" from heel to big toe in millimeters and record the answer. Now measure the actual length of your foot using the official meter tape and record the answer. Determine the score and the record.

*Paper Plate Discus* -- Estimate the distance you can throw a "paper plate discus" and record the answer in meters. Now throw the plate from the starting line as far as you can. Measure the actual distance in meters using the official meter stick or trundle wheel and record the answer. Determine the score and record.

*Cotton Ball Shot Put* -- Estimate the distance you can throw a "cotton ball shot put" and record the answer in centimeters. Now throw the cotton ball from the starting line and record the distance using the official meter tape. Determine the score and record.

*Paper Straw Javelin* -- Estimate the distance you can throw a "paper straw javelin" and record the answer in centimeters. Now throw the cotton ball from the starting line and record the distance using official meter tape. Determine the score and record.

*Right-Handed M&M Grab* -- Estimate the number of M&Ms you can pick up with your right hand and record the total number. Now pick up one handful of M&Ms with your right hand and count the exact number and record. Determine the score and record. Alternatively, you might estimate and find the actual mass of the M&Ms with a gram balance.

*Left-Handed Sponge Squeeze* -- Estimate the volume of water in milliliters you can squeeze with your left hand from a wet sponge and record. Place a small sponge in a bucket of water. Squeeze it to make sure that it is completely wet. Quickly pick up the sponge with your left-hand and squeeze it dry over an empty bucket with a funnel and graduated cylinder and record. Determine the score and record.

*How Hot is Hot* -- Estimate the temperature of a glass of water by putting one finger in the water. Write your estimated guess on the worksheet, then use the thermometer to measure the temperature in Fahrenheit/Celsius.

*Ice Cube Curling* -- Estimate the distance you can slide an ice cube using only a popsicle stick and record your answer in centimeters. Now slide the ice cube from the starting line and record the distance using the official meter tape/stick. Determine the score and record.

## Procedures

Each team will have 4-5 members. Students will choose one person from their team to perform one of the events. Before the activity begins, the students say the Olympic pledge. The representative from each team will compete with others to one of the events to determine the winner of that event. The participants will record an estimate and actual measure. The measures should be accurate and have unit labels. The difference between the estimate and the actual measure will be the score. The lowest score wins since it shows more accuracy in estimation. Several days before hand, students do research and build excitement of the big event.

Give each team task cards and time to decide which events they will participate in.

Give out the Participation Awards with the event listed on them.

The games will begin with running the flame around the area and the group saying the athlete and Olympic pledge.

The group is responsible for measuring, estimating, and calculating scores. The group needs to see how closely they can match their estimate and actual measurement in metric units. The teacher will supervise the totaling scores for the teams, measuring to the nearest whole unit. The teacher needs to announce when teams will rotate to the next station.

It is fun to have an Award Ceremony with Participation Awards!

## Explore activity

Gather information from the AIMS Education Foundation related to Olympics. The web-site is:

<http://www.aims.edu.org/Activities/middle.html>

Students can accurately answer these questions:

- How many liters of water will fill your bathtub? Draw a cartoon and record your data.
- Select five (5) or more containers of assorted sizes and shapes. Can you arrange them in order from least to greatest and predict their volume accurately? Make a diagram and a table of your results.

### Mini Metric Olympics

Team \_\_\_\_\_ Competitor \_\_\_\_\_

Event	Guess	Actual Measure	Score (Difference)
Big Foot Contest	_____ mm	_____ mm	_____ mm
Paper Plate Discus	_____ m	_____ m	_____ m
Cotton Ball Shot Put	_____ cm	_____ cm	_____ cm
Drinking Straw	_____ m	_____ m	_____ m
Javelin			
Right-Handed M&M Grab	_____	_____	_____

<b>Left-Handed Sponge Squeeze</b>	_____ mL	_____ mL	_____ mL
<b>How Hot is Hot?</b>	_____ F/C	_____ F/C	_____ F/C
<b>Ice Cube Curling</b>	_____ cm	_____ cm	_____ cm