



## 2-3 Math The Guthrie Green Races

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### **Overall Goal for the Lesson:**

Students will participate in games on the green, estimate and then measure the distance of several different races (2<sup>nd</sup> grade) and then order their times using knowledge of time (3<sup>rd</sup>).

### **Description of Setting, Grade Level, and Students:**

This activity can be used for 2<sup>nd</sup> and 3<sup>rd</sup> graders, any class size. It will be done whole group.

### **Student Objectives for the Lesson:**

Students will use their knowledge of graphing skills and decimals to either a.) Create a graph showing the times of the various runners or b.) Order the decimals times according to speed.

### **Length of Lesson:**

These lessons will take anywhere from 30 - 90 minutes.

### **Schedule of Activities:**

1. Preparation: Teachers should prepare by front-loading students with information about time and measurement, including the length vocabulary “yard, feet, inches”. Third grade students need to be familiar with the concept of time as 60 minutes to an hour and 60 seconds to a minute. This lesson can be used as an assessment of skills acquired.
2. Teacher will organize the students into groups for a series of races (length of the park, length of the park and back, relay, etc).
3. Second grade students will estimate the distance of the races using feet, inches, and yards as measurement standards.
4. Third grade students will run the races, using timers and recording time per race per student.
5. After estimations, 2<sup>nd</sup> grade students will run the races and then use appropriate materials (yard sticks, rulers, measuring tapes) to determine the actual distance of the races.
6. Following the race, 3<sup>rd</sup> grade students will compile the times into a group recording sheet. At teacher’s discretion, groups may graph their group times onto a group bar graph, order the numbers on a number line, or represent the data in some other way. The group recording tables can also be cut up into horizontal strips (showing each student’s name and time) and then ordered numerically, then transferred onto said graph or chart.
7. As a class, groups can collaborate to make a whole class graph showing all times ordered from least to greatest or organized on a graph.

### **Common Core Standards Addressed:**

CSS.Math.Content.3.MD.A.1 Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

CCSS.Math.Content.2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

CCSS.Math.Content.2.MD.A.2 Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.

CCSS.Math.Content.2.MD.A.3 Estimate lengths using units of inches, feet, centimeters, and meters.

**Assessment:**

Third grade students will be assessed based on their completion of some sort of data representation (bar graph, line graph). Second grade students will be assessed on their group measurement of the various race lengths.

**Accommodations:**

Students with physical disabilities will need accommodations for race. Students may need additional support or time to measure the distances, depending on the length of the races and the familiarity of the students.

**Materials Needed:**

Timers

Individual Recording Sheets (2 per page)

Group Recording Sheets (Groups can record two different races per page)

Measuring materials (yard sticks, measuring sticks)

Name \_\_\_\_\_

Individual Recording Sheet

	Distance	Time
Race 1:		
Race 2:		
Race 3:		
Race 4:		

Name \_\_\_\_\_

Individual Recording Sheet

	Distance	Time
Race 1:		
Race 2:		
Race 3:		
Race 4:		

Name of Group Member	Time

Name of Group Member	Time