



ESTIMATING & GRAPHING OUTDOORS

Nutshell

In this lesson, students will estimate the number of objects inside a sample plot and then create a classroom graph of the data collected.

Objectives

Students will be able to....

- Group similar objects together
- Collect data found within a sample plot
- Estimate the number of items in their sample plot
- Create a graph of the items in their sample plot

WI State and Core Standards

Math Common Core: K.CC.1, K.CC.5, K.MD.3, 1.MD.4, 2.MD.10

Materials

- Clipboards
- Copies of the student worksheet
- Writing utensil
- 30" piece of string for each group of students (students work in pairs)

Teacher Preparation:

- notify the main office that you will be outside for a certain amount of time
- be sure students are appropriately dressed for the weather
- gather all needed materials so you don't have to go back inside
- classroom behavior guidelines are the same outdoors as they are in the classroom

Procedure

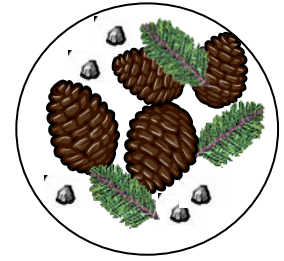
1. Students should find a partner or be assigned a partner to work with. Each partnership will get a piece of string and place it on the ground forming a circle shaped sample plot
2. Students will start to identify the different objects located on the ground in their circle and should draw the objects in the sample plot just as they see them in the circle on the worksheet.
3. Students should begin to organize the objects into groups based on similarities. For example: is there a group of leaves, or rocks, or pine cones?
4. Students should estimate how many items are in each group and record that information on the student worksheet. Then they should count the number of items they found in each group and record it on the student worksheet.
5. Using this data, students should graph the number of objects in each group found in their sample plot on the worksheet

Further Enrichment

- As a class, discuss the different groups of objects each student partnership found in their sample plot. Then create a classroom graph to show the data collected within each sample plot.

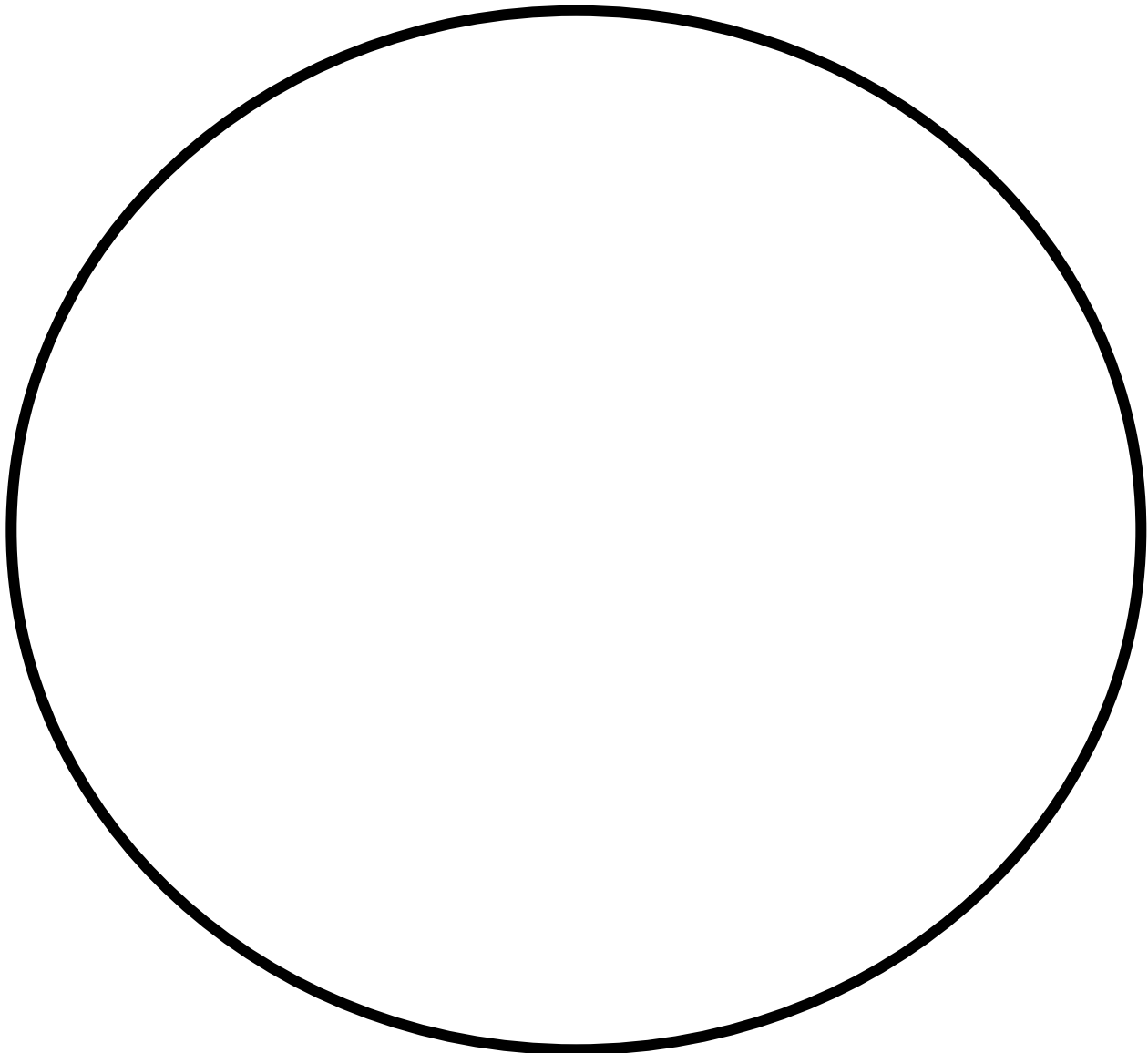


Name: _____



Estimating and Graphing Outdoors

1. Form a circle on the ground with your string
2. Look at all of the different objects on the ground in the circle.
3. Draw the objects in your circle below. Be sure to put them in the same spot you see them!
4. Can you make groups out of the different objects you see?
 - a. Is there a group of leaves?
 - b. Is there a group of pine cones?
 - c. What other groups do you see?
5. Make an estimate of how many items you think are in each group.
6. Count the number of items in each group you found. Write the name of the group below and the number of individuals in each group. ...there is space to write on the back of the paper.



Record your numbers here:

Group of objects	Estimated number of objects in this group	Number of objects we actually counted in the string for this group

Graph the number of objects you found in each group.

Title:

