



## Teaching in the Gardens and Growing the Future

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### Counting and Comparing Weeds Kindergarten

#### Lesson Summary

##### When to use this lesson

Use this activity when weeding is required in your garden.

##### Objective

Students collect weeds to compare data using "most" and "least".

##### Standard

MCCCK.CC.4. Understand the relationship between numbers and quantities; connect counting to cardinality.

MCC.CC.5. Count to answer "how many?" questions about as many as 20 things arranged in a straight line.

MCC.CC.6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.

##### Materials

- Examples of various weeds the students will collect
- Worksheet for each student
- A clipboard for each student
- A pencil for each student
- A bucket for each team of students
- Individual weed pictures from the barn

##### Estimated Duration

30 minutes

#### About Weeds

- Explain that the class will remove weeds from garden beds and the mulched paths.
- What is a weed? A weed is a plant that is growing where we do not want it and one that we have not planted.
- What does a weed need to grow? Weeds are plants so they need air, water, and the right temperature to grow. Some weeds only grow in the spring and summer. Others start to grow in fall and winter. Temperature changes signal the weeds to grow at the right time for their life cycle.
- Are weeds needed in nature? Many weeds are edible for people and contain vitamins we need. Some weeds are used for medicine. Plantain has antibacterial properties and is used to treat sore throats, colds, and the flu. Jewelweed is used to treat poison ivy. Some weeds

have been developed by man into a new more useful or acceptable plant – like a wild grass into the corn plant we know today.

- Why do we remove weeds? We want to prevent them from spreading, to remove them before seeds form, to give the plants we want the space, food, and water they need without weeds crowding them.
- Explain the activity to the students. Students act like scientists to gather, record, and communicate information. Students work in teams to locate and pull the weed type assigned to the team. Each team has its own bucket to collect the pulled weeds and a picture and sample of their weed. After the allotted weeding time, the students gather in their teams to count the number of weeds they collected.
- Students may only count the weed if the roots are attached, so students should pull weeds with their fingers as close to the soil as possible. Their fingers should touch the soil when they pull. Can they guess why? We want to get as much of the roots as possible so the weed can't regrow. Many weeds have long roots and spreading roots, which all need to be removed as completely as possible to help prevent them from growing again from the roots.

### Recording and Interpreting Data

- Any open garden area can be used for this activity. Check your garden beds to see if weeding is needed and use your beds and the area around them for the activity. Check the area that will be weeded to be sure the photos of weeds are represented. Decide which weeds the students will collect. Place a photo of the weed in the bucket for each team. Collect a sample of each weed and place it in the bucket.
- Divide the students into teams. Show the example of a weed, name it, and assign it to a team. Give the team the example, a picture of their weed, and a bucket to collect weeds. If you only have yourself and the teacher, divide the class into four teams and assign two teams to each of you and the teacher so you can keep the groups nearby to monitor their progress.
- Allow time to collect weeds, and then gather the teams to work on the worksheet. Pass out and review the worksheet. Each group counts the number of weeds they collected and writes the number on the worksheet.
- Each group shows a sample of the weed they collected and reports the total number of weeds collected. All groups record the count reported by the other groups.
- Answer the questions at the bottom of the worksheet as a group. One question asks students to find the difference between the number of the most weeds and the number of the least weeds. Can students describe a strategy to help them? Try counting up from the low number with students. Have a student stand next to you and use his or her fingers to count up from the low number by showing one finger for each number in the count. Stop when the number (and finger) match the high number of weeds. Add students if the first student runs out of fingers. Find the difference by adding the fingers, which will be grouped by 5.
- *If you have time:* Discuss the appearance of the weeds. Did any of the weeds have flowers? Seeds? Weeds like other garden plants flower at different times. Do the roots look the same? Show the difference between fibrous, tangled roots that stay close to the surface and long taproots. The purpose is the same, but their appearance is different.
- At the end of the session, weeds should be disposed of in the compost areas in the Hill Gardens that are along the forest edge. Do not compost weeds in the leaf compost.



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## Counting and Comparing Weeds – Grade One



Name: \_\_\_\_\_

In math, we learn to organize and interpret categories of data. Today we pulled weeds in our garden to gather data and answer questions about our results. Ask your child which kind of weed we found the most. Email [granny@grannysgardenschool.org](mailto:granny@grannysgardenschool.org) to join us for our next gardening experience!

	Weed Name	How many were found?
1	Crabgrass	
2	Clover	
3	Dandelion	
4	Nut grass	
5	Plantain	
6	Purslane	
7	Spurge	
8	Wood Sorrel	

Underline the weed name we found the least.

Circle the weed name we found the most. How many more are there of the most compared to the least?

# 1-Crabgrass



Arthur, Richard. Crabgrass.jpg. July 2006. Wikipedia. 23 Jul 2013 < <http://en.wikipedia.org/wiki/File:Crabgrass.JPG> >

# 2-Clover

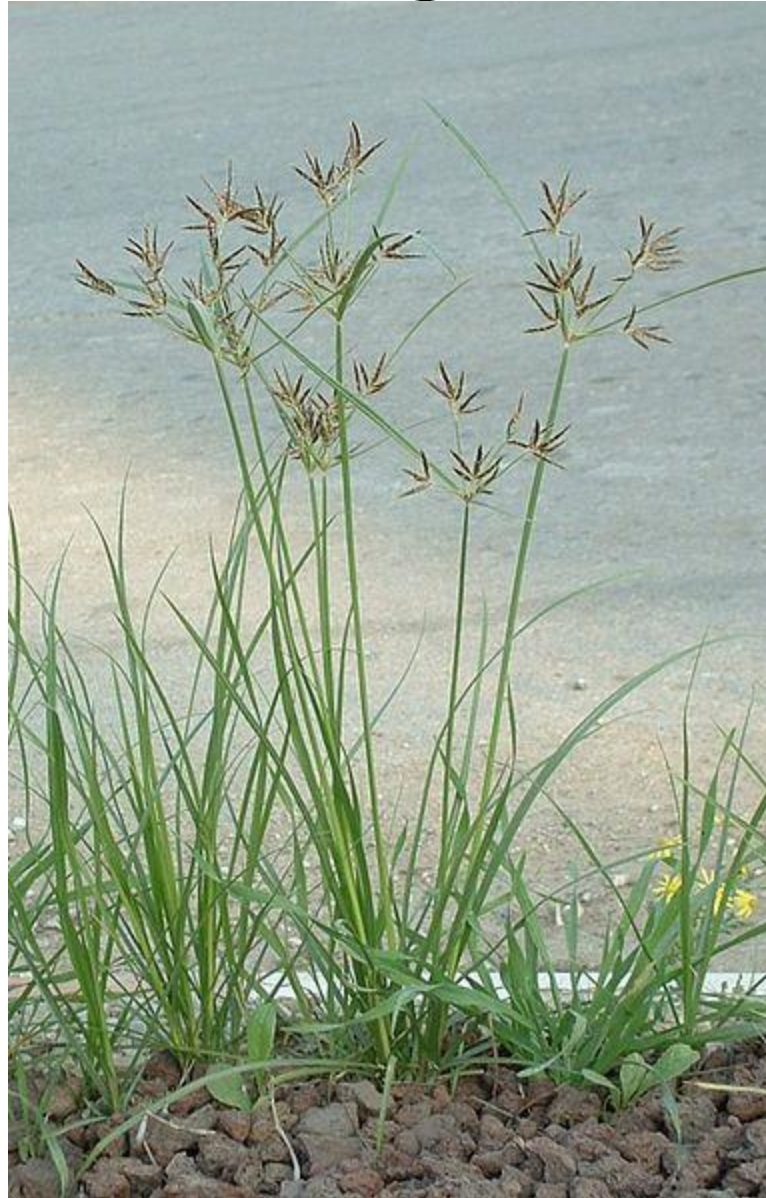


Cross, Lelia. [clover\\_in\\_bloom.jpg](#). April, 2012. Pics4Learning. 23 Jul 2013 <<http://pics.tech4learning.com>>

# 3-Dandelion



# 4-Nutgrass



Rickjpellg. Nutgrass Cyperus rotundus02.jpg. December 2005. Wikipedia. 23 Jul 2013  
<[http://en.wikipedia.org/wiki/File:Nutgrass\\_Cyperus\\_rotundus02.jpg](http://en.wikipedia.org/wiki/File:Nutgrass_Cyperus_rotundus02.jpg)>

# 5-Plantain

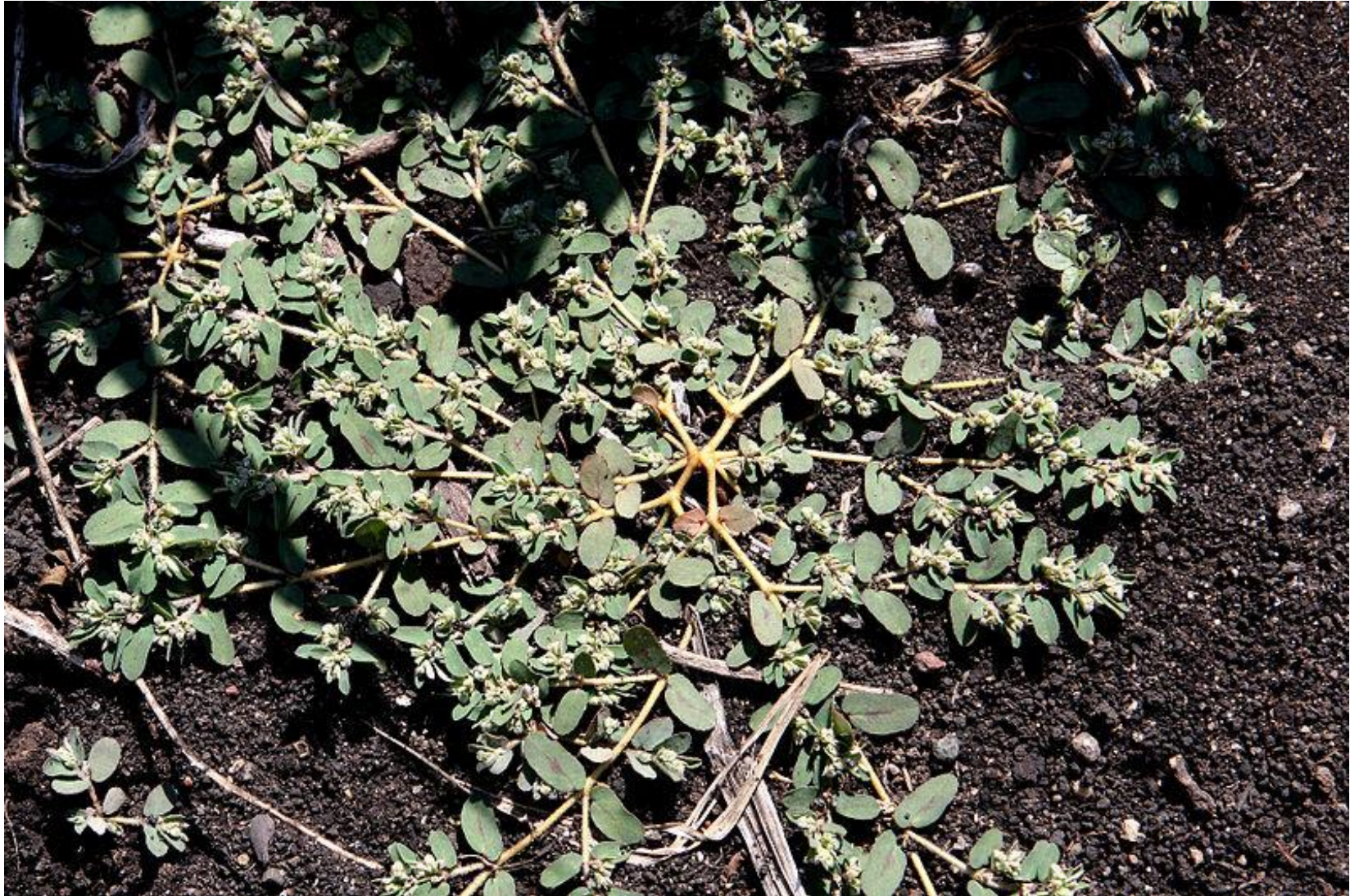




# 6-Purshlane



# 7-Spurge



Hardyplants. Chamaesyce.jpg. February 2009. 23Jul 2013 < <http://en.wikipedia.org/wiki/File:Chamaesyce.jpg>>

# 8-Wood Sorrel



Hazen, Bob. [wood\\_sorrel6626.jpg](http://pics.tech4learning.com). July 2009. Pics4Learning. 23 Jul 2013 <<http://pics.tech4learning.com>>