

## Project Pumpkin Activity

An optional piece to this activity is to take photos of students as they work through the project. Remember to have your camera out and ready during student work time!

1. Visit your local supermarket or farmer's market and purchase three (3) pumpkins that range in weight from 1 to 3 pounds. If possible, get pumpkins of different shapes to add variety to your circumference measurements which you will complete a little later.
2. Using a permanent marker, or some other type of marking system, designate the pumpkins as A - B - C.
3. Explain to students that they will be taking various measurements of these three pumpkins. (Depending on the age of your students you may ask them guess what these measurements will be.) Have a discussion surrounding the methods you will use to obtain these measurements.
4. Distribute the Data Collection sheet to your students and review for understanding.
5. Prior to any measuring, have students estimate the following: weight of each pumpkin, circumference of each pumpkin, and the number of seeds in each pumpkin. (This information will not be shared with other classes, but it will be a good teaching point for you and your students.) While students are estimating the weight, encourage them to pick up the pumpkins and compare them to other objects they may be familiar with handling.
6. Once the estimating is complete, use a scale (a standard bathroom scale will work great) to weigh each pumpkin.
7. After students have used the Data Collection Sheet to record their pumpkin weights, they are ready to measure the circumference of each pumpkin. (Prior to this step, make sure you have a ball of string or yarn available for students if you are not using a cloth measuring tape.) As students are measuring, remind them to record their data on their paper.
8. Prior to beginning this step, you will want to have your pumpkins on a covered surface. It will also be a good idea to have the pumpkins spread out in three different areas of the room to give students plenty of work space. Assign groups of students to each pumpkin. It is now time to cut into the pumpkins. You, or a parent volunteer, will want to handle the knife and do the cutting. Provide students with spoons or some type of scrapers to remove the seeds from the pumpkins. Be sure to have a separate bowl for each pumpkin. (You may even want to have two bowls per pumpkin: one for the seeds and one for the meat.) Have students remove all of the seeds and "guts" prior to doing any counting. As they are cleaning out the pumpkin, ask students to separate the meat from the seeds. This should help make counting easier and faster.
9. After the pumpkin has been completely emptied, students can begin counting the seeds. Prior to counting, discuss with the class several different strategies that could be helpful for this process. You will also want them to count the seeds at least two times, checking for accuracy. (Students may want to use scratch paper and tally marks for this portion of the activity.) Once they have an accurate count of seeds in the pumpkin, they can record their number on the Data Collection Sheet. They will also need to get the seed totals from other groups for the two pumpkins they did not work with.

10. Once all of the measuring and counting is complete, take some time with your students to discuss and compare/contrast their estimates with the actual measurements. Estimating can be a difficult skill for both kids and adults, so taking time for this step is important.

11. You and your class are now ready to share your data with the world! You will enter the following information online: the weight, circumference and seed count for each, individual pumpkin. You may want to do this as a whole class, so they can see the process, or you may do this on your own away from students. Visit this URL to enter your data:

<http://www.theteacherscorner.net/collaboration-projects/project-pumpkin/data.php>

12. As project participants begin to share their data, visit the "Showcase" page to view the data in a spreadsheet and have your students make comparisons to what other classes post.

13. Remember, an optional part of this activity is to post photos of your students working on Project Pumpkin, so don't forget to email us the link to your photos!

14. As a class, you may want to finish carving the pumpkins. Consider having a contest for students to design the best face for each pumpkin. And don't forget to upload those photos as well!