

Pumpkin Mania: Math & Science

Early Childhood
Education

Information
Brief

OKLAHOMA STATE UNIVERSITY

Fall is an exciting time of the year for young children and they have lots of energy. What we can do as facilitators of children's learning that will capture the excitement and at the same time continue the learning process? For inspiration take a trip to your local pumpkin patch. With an open mind and a bit of creativity you can discover many hands on math activities that explore the concepts of measurement, counting, sorting, operations, shapes, graphing and much more. Enjoy some of the resources that are provided for you here. These activities can be adapted to meet the needs of any level of learners and guess what? You can ditch the worksheets and cover the same concepts.



Pre-Assessment

In a group you can ask the children, "What do you know about pumpkins?" Be prepared to write on chart paper really fast because children know lots about pumpkins. Leave the chart displayed in the room and you can either add to this chart or start another one, "What did you learn about pumpkins?"

How Big Around Is Your Pumpkin?

This activity can be done with each child having their own pumpkin (donated by a nice farmer) or in pairs or small groups.

Measure the circumference of your pumpkin. The circumference is the distance around your pumpkin.

- ✓ Take a piece of yarn and wrap it one time around your pumpkin like a belt. Do not stretch the yarn too tight.
- ✓ Cut the yarn where the end meets the beginning.
- ✓ Put your name on a piece of masking tape and tape your yarn to the chart. Be sure you put your yarn real close to the one before yours so everyone can fit on the chart.

From your group find out which pumpkin has the largest circumference and which has the smallest circumference.

Floating Pumpkins (This activity is a great outdoor activity to participate in on a very warm October day)

- ✓ Make a prediction. Do you think that your pumpkin can float? Why or why not?
- ✓ Take your pumpkin and gently place it into the container of water. Does it float?
- ✓ Do all the pumpkins float?
- ✓ Does the size of the pumpkin make a difference in the way it floats?
- ✓ Does the shape of the pumpkin make a difference in the way it floats?

Rolling Pumpkins - Activities

- ✓ Standing at the tape starting line, roll your pumpkin *one* time.
- ✓ Mark where your pumpkin stopped with a pumpkin marker.
- ✓ Use some form of informal measurement to tell how far your pumpkin rolled. (Non-standardized unit of measure examples include, pencils, paper clips, shoe size, notebooks).
- ✓ Write the measurement on a chart.
 - Measure the same distance using feet and inches; you may use a ruler, yardstick or measuring tape.
- ✓ If you rolled your pumpkin down a ramp do you think it would roll farther? Write your prediction here. _____
- ✓ Now, roll your pumpkin down the ramp. Did it roll farther? Explain why or why not.

Books that can be used during pumpkin season

- *Pumpkin Pumpkin* by Jeanne Titherington
- *It's Pumpkin Time* by Zoe Hall & Shari Halpern (Illustrator)
- *The Biggest Pumpkin Ever* by Steven Kroll & Jeni Bassett (Illustrator)
- *The Great Pumpkin Switch* by Megan McDonald & Ted Lewin (Illustrator)
- *Pumpkin Patch* by Elizabeth King
- *Pumpkin Circle: The Story of a Garden* by George Levenson & Ahmuel Thaler (Photographer)



Songs that can be used during pumpkin season

- [Five Little Pumpkins](#)
- [Orange Pumpkin Fall Song](#)
- [The Pumpkin Patch](#)
- [Pumpkin Patch Boogie](#)

Videos that can be used during pumpkin season

- *Life Cycle Of A Pumpkin!*
<https://www.youtube.com/watch?v=iXLnCd4JMH4>
- *Pumpkin Pumpkin*
<https://www.youtube.com/watch?v=l1qs4yFfRyQ>
- *Great Big Pumpkin*
https://docs.google.com/file/d/0BzW5317QcZ6_WXVsRm5kY2duNFE/edit
- *A Pumpkin Grows*
https://www.youtube.com/watch?v=AB-dfi_OTsQ

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