

## Curriculum Share

DRDP Measure: COG 9: Inquiry Through Observation and Investigation

Age Group: Toddler & Preschool

## Math With Pumpkins

Developmental information:

Inquiry Through Observation and Investigation

Child observes, explores, and investigates objects (living and nonliving things) and events in the environment and becomes increasingly sophisticated in pursuing knowledge about them



Whether you are making a jack-o-lantern for Halloween, a pumpkin pie for the holidays, or pumpkin soup for a cold, rainy day, here is a fun way to engage your child in estimation, measurement, and simple graphing activities.

Image of pumpkin math

Materials

1 or more different-sized pumpkins

Sharp knife

Tape measure, yardstick, or ruler

String

Scissors

Markers



## Directions

1 Before you tackle the task of cooking or carving, invite your child to help you decide if this particular pumpkin is going to meet your needs. Decide together: Is the pumpkin going to be enough? How could you figure this out? (Hint: Weigh it! A 3-lb pumpkin usually gives you 4 to 5 cups of pulp). If you are making a jack-o-lantern, talk about any problems the pumpkin's shape might create as you make the face. What could you do to overcome these problems?

2 Compare heights using a bar graph! If you are using more than one pumpkin, talk about the ways they are the same and different (height, circumference, color, overall shape).



Cut a length of string for each pumpkin to show how tall it is. Use a colored marker to mark both the pumpkin and the string to keep track or which string goes with each pumpkin.

Lay the strings parallel to one another on a table, with the bottom ends lined up to compare.

Cut a length of string that goes around each pumpkin's circumference (the distance of the widest part around the middle). Keep track by marking with a colored marker. Start comparing!

Ask your child: Is the circumference greater than the height? How can we find out?



3 If you like to bake the seeds for snacks: Before scooping them out, invite your child to estimate how many seeds are inside the pumpkin.

Use a sharp knife to open up the pumpkin and look inside. What strategies could you use to estimate how many seeds you see? (Hint: one way is to mentally divide the inside of the pumpkin into equal sections and count how many seeds are in that section. Using repeated addition, add that number to itself for all the sections).

Using your estimate, do you think you'll have enough seeds to give snacks to 10 friends?



4 If you are making a jack-o-lantern:

Invite your child to suggest geometric shapes for the eyes, nose, and mouth, and then draw the shapes where they should go. You can either cut out the shapes or have your child color them in.

Finish off the pumpkin by adding fun and wacky details, like string for hair and costume jewelry.

5 If you are cooking with your pumpkin, invite your child to help measure the pulp and other ingredients for your recipe.

