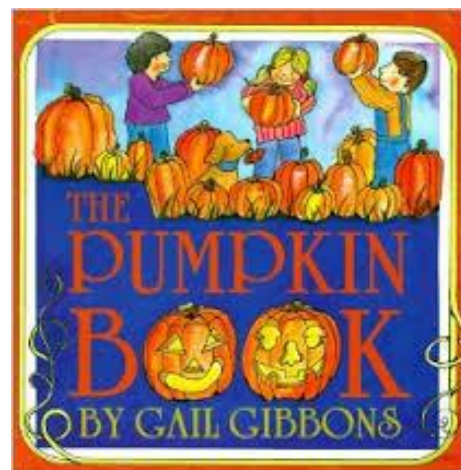


October 2015 Book of the Month The Pumpkin Book By: Gail Gibbons

Big, small, round, tall—pumpkins come in all shapes and sizes. Here one learns the marvels of the growth cycle of these incredible plants—from flat seeds, to thick vines covered in golden flowers, to brilliant orange pumpkins! Gail Gibbons relates the special role pumpkins played in the first Thanksgiving. Simple and clear directions for drying seeds, planting and tending pumpkin patches, and carving funny or scary faces are included in the book along with a fascinating section on pumpkin facts and lore.



Vocabulary and Fun Facts

- Pumpkins are usually orange but can sometimes be yellow, white, green or red.
- The name pumpkin comes from the Greek word 'pepon', meaning 'large melon'.
- Pumpkins have thick shells, which contain pulp and seeds.
- Scientifically speaking, pumpkins are a fruit (they contain seeds) but when it comes to cooking, they are often referred to as vegetables.
- Pumpkins are usually shaped like a sphere (ball).
- They vary in weight but an average sized pumpkin might weigh around 13 pounds (6 kilograms).
- Giant pumpkins can be grown for competitions, with some weighing over 1000 pounds! (450 kilograms). In 2010, the world record was 1810 pounds! That's huge!!
- Pumpkin plants feature both male and female flowers, with bees typically being involved in pollination (the transfer of pollen).
- Over 1 billion pounds (450 million kgs) of pumpkin are produced in the US every year.
- As a food, pumpkin can be baked, roasted, steamed or boiled.
- Pumpkin soup is popular, as are roasted pumpkin seeds.
- Pumpkin pie is a sweet dessert that originated in North America and is traditionally eaten during harvest time and holidays such as Thanksgiving and Christmas.
- Pumpkins are popular decorations during Halloween. A carved pumpkin illuminated by candles is known as a 'jack-o-lantern'.

Pumpkin Varieties: different kinds of pumpkins such as Jack Be Little, Red October, Big Max, Baby Bear, and Small Sugar Pie

Pumpkin Patch: a place where pumpkins are grown.

Seed Leaves: two leaves that appear above the soil where each pumpkin seed was planted; they produce more food for the pumpkin plant.

Pumpkin Vine Leaves: prickly and rough around the edges, these leaves grow from the seed leaves and begin to grow long twisting stems.

Vine: stems become vines as they grow thicker and longer from the vine leaves of the pumpkin plant.

Tendrils: vines that grow curly structures and wrap themselves around other parts of the pumpkin plant to help spread the vines.

Flower: golden-color blossom on the pumpkin plant that contains either the stamen or the stigma used for pollination.

Pollination: this occurs when a grain of pollen from the stamen (male flower) lands on the stigma (female flower) by the wind, bees, or insects.

Nectar: the sweet juice flowers make.

Activities

STEM Challenge: Building with Candy Pumpkins

Give each student a bowl of candy pumpkins and toothpicks. For this experiment, let the students choose how they want to build and explore.

1. Build the tallest tower you can with a set number of toothpicks and candy pumpkins. **OR**
2. Build a structure with candy pumpkins and toothpicks (not a preset number of materials).

The students' will be counting and measuring and using math skills without even realizing it. Have them discuss with others how and why they built the structures.

Through trial and error the students will figure out how to build their structures to make them taller and stronger.

Pumpkins: Force and Motion

Explain force and motion to your students. Make an anchor chart showing the following:

Force and **Motion** happen around us all the time. **Force** means using energy to do work. Pushing and pulling are types of work. **Motion** is the change in position of an object because of force.

Take students to a large room (open classroom, outside, gym) and divide the students into groups. Each group will need a small pumpkin and a ball about the same size. Question: *How will the different objects move?* Have students explore rolling and moving the ball and pumpkin around. Ask the following questions and have students discuss in groups and record their answers. 1. *How will the ball and pumpkin move? What will be alike? Different?* 2. *Do you think they will roll the same distance? Why or why not?* 3. *What can you change or add to make them go a longer distance?*

Estimate Weight

Bring a pumpkin to class. Hold a class discussion about weight, asking various students to share their weight. Allow students to lift the pumpkin, giving them a point of reference in relation to their own weight. Ask students if they think they weigh as much as the pumpkin. Have each student take a guess as to the exact weight of the pumpkin. Weigh it to see who was closest.

Experiment: Dissolving Candy Pumpkins

Have students predict what will happen if they put candy pumpkins in different types of liquids. Will they sink? Float? Dissolve? Change colors? Give the students a piece of paper divided into 4 sections labeled 1) milk 2) water 3) oil 4) vinegar. Have students test their predictions by placing one candy pumpkin in each jar filled with the same amount of liquids above. Have students observe what happens in each liquid. Remove the pumpkins and place them on the paper next to the liquid. Have students discuss what happened to each pumpkin and why.

Sources:

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