Title of Lesson: Pumpkins
Theme: Life Science
Unit Number: 7    Unit Title: All About Plants
Performance Standard(s) Covered (enter code):
   S1CS1
   S1CS2
   S1CS4
   S1L1

Enduring Standards (objectives of activity):
   Habits of Mind
      ☒ Asks questions
      ☒ Uses numbers to quantify
      ☒ Works in a group
      ☐ Uses tools to measure and view
      ☐ Looks at how parts of things are needed
      ☒ Describes and compares using physical attributes
      ☒ Observes using senses
      ☐ Draws and describes observations

Content (key terms and topics covered):
Life cycle of plants, plant parts, pumpkins

Learning Activity (Description in Steps)
Abstract(limit 100 characters): Students will understand the basic needs and characteristics of plants and their fruit.
Details: • Divide students into small groups; approximately 3-5 per group
• Give each student a paper towel as a place mat.
• With each group, show the students one of the pumpkins
   o Have them count the number of lines around the pumpkins (Write on Chart, below)
   o Have them describe the color of the pumpkins
   o Have them work together to determine the height of the pumpkin (using blocks) (Write on chart, below)
   o Ask them if they think there is one seed inside, two seeds inside, or several seeds inside.
• Ask the students to make an estimated guess about the number of seeds in the pumpkin
• Explain how when studying Science, if one does not know the answer to a question, one must investigate to find the answer.
• Cut open the pumpkin
• Show the students the inside of the pumpkin, have them feel inside the pumpkin. Have them describe how it feels, how it smells etc.
Review at this time: Why do plants make seeds? How are seeds spread? What did this pumpkin grow from? Did it come from a vine? What color was the flower that the pumpkin came from?

• Ask them again how many seeds they THINK are inside the pumpkin?
  o Ask each student to give an “estimate”

** Let the students write their data on the chart. It gave my students a sense of responsibility for their work and gave them experience in collecting and recording data.
  o Use and explain the word “hypothesis”
  o Explain again, how in Science on must TEST to find the answer to questions.
  o (Write guesses on the Chart)

• Grab handfuls of seeds and divide them among the students until the pumpkin is empty of seeds
• Have them count the seeds, pulling them apart and organizing them on the paper towel.
• Add up the total number of seeds. (Write on the Chart)
• Ask the students whose guess was closest.
• Ask them if there was a difference in the number of seeds, based on the size of the pumpkin, as compared to other groups.

Chart:

<table>
<thead>
<tr>
<th>Number of lines</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height of pumpkin (in blocks)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color of Pumpkin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guessed Number of seeds in the pumpkin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of seeds counted in the pumpkin</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Materials Needed (Type and Quantity):
• Three pumpkins, varying in size
• Paper towels
• Poster Board
• Markers
• Knife, for cutting open pumpkin

Notes and Tips (suggested changes, alternative methods, cautions):
• Do not cut open the pumpkins near the students. Explain to them the dangers of knives, and do not let them come near.
• Take care not to get the pumpkin in eyes.
• Open pumpkins before meeting with students

Sources/References:
1)
2)
3)