Science Literacy

Pumpkin Chain

Grade Level
K-3

Length of Lesson
45 minutes

Objective
By the end of this lesson, students will know the life cycle of a pumpkin.

Materials Needed
- Two orange paper plates per student (or white plates to be colored)
- Crayons
- Glue
- Construction paper (yellow, pink, brown and green)
- Pumpkin Chain templates
- Stapler
- Tape
- Yarn
- Hole Punch
- Scissors

Standards
Common Core
CCSS.ELA-Literacy.RL.4.3; W.4.2

NGSS
K-LS1-1; 3-ESS2-1; 3-LS1-1; 3-LS3-1

Lesson Summary
This lesson is designed to help students in sequencing and building models as well as help them understand the life cycle of a pumpkin.

Suggested Sequence of Events:
1. Set Up: Print each template onto colored construction paper: seed (brown), small pumpkin (green), leaf (green), blossom (yellow), pumpkin (orange). Cut out the shapes and then punch a hole on opposite sides of each template, except the seed, which only needs one hole.
2. Read "Life Cycle of a Pumpkin" by Ron Fridell & Patricia Walsh to capture student interest and to show them how pumpkins grow.
3. Read through the AITC Pumpkin Ag Mag to learn about pumpkins. Interactive online versions can be found on our website.
4. Complete the activity following the procedures:
    - Have students draw a jack o' lantern face on one of their orange paper plates.
    - Have students place their two paper plates together, orange side out, and line up the edges together.
    - Then, have them staple their two orange plates together around 2/3 of the edge. Leave the other 1/3 open.
    - Have them tape one end of a piece of yarn to the inside of the stapled paper plates and extend the yarn out of the opening.
    - Add a stem to the orange paper plates to make them look like a pumpkin. Put this to the side.
    - Ask students what shape is the start of a plant (seed). Then ask them what a seed grows into (leaves, blossom, etc). Use the yarn to tie these two shapes together. Repeat this until you get the chain completed. The orange pumpkin will be tied to the yarn that is already attached to the orange paper plates.
    - Tuck the shapes into the jack o' lantern. Starting with the seed, slowly pull the shapes out of the pumpkin and tell the story of how the pumpkin grows.
5. Whole class discussion and reflection of activity. Pair students together and have them share their pumpkin with their partner, telling the story of the pumpkin life cycle!

TEACHER RESOURCES

Extension Ideas:

- Use white paper plates and have students color their own pumpkins. Show them different pumpkin varieties and have them choose their favorite to color.
- Have student use one orange plate and one white plate, and write a pumpkin poem on the white plate.
- Have students label each shape on their pumpkin chain.
- Have students write about or talk about what is happening at each stage. For higher level students, have them research each step and write a paragraph explaining what happens at each phase and how long each phase takes.
- Have students create a comic strip showing the pumpkin life cycle.
- Have students tell a story from the pumpkin's perspective.
- Show a labeled diagram of a pumpkin.
- Introduce or teach about photosynthesis.
- Watch a time lapse video of a pumpkin growing.
- Watch a video from a local farmer discussing pumpkin growth and harvest.
- Take a field trip to a patch and pick your own pumpkins.
- Invite a pumpkin farmer into the classroom.
- Measure and adjust the lengths of the yarn in between each shape to represent how long each phase takes.
- Make playing cards of the life cycle of a pumpkin and have students race to put it in order.
- Take a closer look at squash bees and other pollinators. What is pollination? Why is it important for pumpkins?
- Have students think more deeply about pumpkin varieties. Are different pumpkins used for different things?
- Go to agintheclassroom.org to contact your County Literacy Coordinator for free classroom sets of our Ag Mags!