

Pumpkin Pioneers: Exploring Pumpkin Production in Illinois

Grade Level:	Grades 6-8, 9
Estimated Time:	Two, 50 minute classes (approximately 100 minutes)
Overview	
Students will research and present on different aspects of pumpkin production in Illinois.	
Purpose	
By the end of the lesson, students will have engaged in collaborative research and effectively presented their findings on pumpkin production in Illinois, demonstrating their ability to apply agricultural concepts and communicate information clearly.	
Student Learning Objectives	
<ol style="list-style-type: none"> 1. Understand the key aspects of pumpkin production in Illinois. 2. Develop investigative skills through research and data collection. 3. Collaborate in groups to present findings about pumpkin farming practices. 	
Materials Needed	
<ul style="list-style-type: none"> • IL Pumpkin Production PowerPoint • Team Packets: 5 groups topics with 4 team member roles available, edit as needed based on class size (1 packet per student) • Internet-connected devices for student research and presentation creation • Poster paper and markers for group presentations (optional) 	
Vocabulary	
<ul style="list-style-type: none"> • Students will generate their own vocabulary lists as part of their projects 	
Preparation	
Prior to the lesson:	
<ul style="list-style-type: none"> • Print the Team Packets: Depending on class size and student groupings, print 3-4 	

copies of each packet (Varieties of Pumpkins, Growing Conditions, Farming Practices, Economic Impact, and Pumpkin Processing)

- Team Member Job Titles - these can be removed from the lesson or jobs can be combined, as needed. Download copies of the documents to make any necessary edits.
- Optional: Assign students to groups and / or topics ahead of time. The topic assignments can be differentiated by ability with some topics being more challenging than others.

Engage (Interest Approach)

Set the Stage (5 minutes)

- **Open** the PowerPoint to the title slide
- **Ask** students which state in the US they think produces the most pumpkins. Tally the answers on the board.
- **Show** PowerPoint Slide #3
- **Share** with the class, “Did you know that Illinois produces more pumpkins than any other state? Why do you think that is?” and invite answers.
- **Encourage** students to share their thoughts on what factors might contribute to pumpkin production (climate, soil, farming practices).
- **Show** PowerPoint Slide #4 and read through the slide to preview the activity with the class.

Grow (Activity)

DAY 1

Group Students (5 minutes)

- Share the pre-assigned groups with students and have them sit with their group members, or allow students to select their own groups (recommended 3-4 students per group, as class size allows)
- **Distribute the Team Packets** (each student should have a copy of their assigned group packet).
 - *Optional: Show the video on slide #5 while distributing the packets.*

Review the Activity (10 minutes)

- **Show slide #6**
- **Say** “Each group will research and prepare a presentation about one aspect of pumpkin production in Illinois. Presentations can be made on the poster board or by using PowerPoint / Google Slides.”
 - *Note: Edit PPT slide #6 if you would like to modify the presentation format options*

- **Show slide #7**
- **Say** “To tackle these questions, we are each going to take on a job within our group. Follow in your packets while we go over the options.”
- **Read** and review slides #7-8 with the class. Invite questions.
- **Show** slide #9
- **Say** “Next, we need to review how you will be evaluated.” Provide a general overview of the rubric and give examples as needed; invite questions.
- **Show** slide #10
- **Explain** that they are not limited to the sources listed but that they are good places to look first (each group has a different set of potential sources).
- **Say** “Take a look at your packets. Notice that there are steps 1, 2, 3, and so on. Be sure to begin at step one and follow the steps before diving right into putting together your presentation.”
- **Remind** students how much time they have left in the class period to work on the projects.

Research and Preparation (20-25 minutes)

- Remind students when they have 5 minutes remaining to work on the project for the day.

DAY 2

Research and Preparation (10-15 minutes)

- If needed, give students 10-15 minutes at the beginning of class to finish their research and presentations. Begin the class period by reminding them to review the steps in their packets.

Audience Expectations (3 minutes)

- **Say** Each group has 5 minutes to share their findings with the class.
- **Remind** students what it means to be a good audience member (making eye contact, asking questions, being kind, etc.)
- **Explain** that there will be an activity after all of the presentations so it is important that they actively listen during all of the presentations.

Group Presentations (25 minutes)

- Each group has 5 minutes to share their findings with the class. *(Assume that you will need an extra 5 minutes for set-up / transition times)*

Debrief (with remaining time in the class period)

- **Invite** students to get with their counterparts in other groups to debrief; for example, designate a corner of the room for all of the Project Managers to discuss their experience as a project manager, the same with Artistic Directors, etc.

References & Resources:

Additional Resources and References:

- [Illinois Ag in the Classroom Pumpkin Ag Mag](#)
- [Illinois Ag in the Classroom All Things Pumpkins](#)

Standards and Connections

AFNR

1. Content Standard 1: Agricultural Foundations

- 1.1: Demonstrate knowledge of the history, culture, and contributions of agriculture to society.
- 1.2: Explain the role of agriculture in society and the economy.

2. Content Standard 2: Plant Systems

- 2.1: Analyze the growth and development of plants, including factors that affect plant growth and production.
- 2.2: Explore the importance of plant systems in agriculture, focusing on crop production practices.

3. Content Standard 3: Environmental Services

- 3.3: Investigate the interactions between agricultural practices and the environment, including sustainable practices.

4. Content Standard 5: Leadership and Career Skills

- 5.1: Develop skills for effective communication and teamwork in group settings.
- 5.2: Demonstrate decision-making and problem-solving skills in agricultural contexts.

ELA

1. Writing Standards:

- W.6-8.2: Write informative/explanatory texts to examine a topic and convey ideas clearly.
- W.6-8.7: Conduct short research projects to answer a question, drawing on

several sources.

- c. W.9-10.7: Conduct short as well as more sustained research projects to answer a question or solve a problem.

2. Speaking and Listening Standards:

- a. SL.6-8.1: Engage effectively in a range of collaborative discussions.
- b. SL.6-8.4: Present claims and findings, emphasizing relevant evidence.

Mathematics

1. Mathematical Practices:

- a. MP.4: Model with mathematics. (*applicable to analyzing data related to pumpkin production*)
- b. MP.5: Use appropriate tools strategically, such as technology for presentations.

NGSS

1. Crosscutting Concepts:

- a. CC 3: Scale, Proportion, and Quantity (*Students analyze aspects of pumpkin production at various scales, such as individual, farm, community*)
- b. CC 7: Stability and Change (*Explore how environmental factors impact pumpkin farming*)

2. Disciplinary Core Areas:

- a. ESS3.A: Natural Resources (*Investigate the role of natural resources in pumpkin production*)
- b. LS2.C: Ecosystem Dynamics, Functioning, and Resilience (*Discuss ecological impacts of farming practices*)

3. Science and Engineering Practices:

- a. SEP 3: Planning and Carrying Out Investigations - Students engage in group research.
- b. SEP 8: Obtaining, Evaluating, and Communicating Information - Emphasize effective presentation of research findings.

Social Science

1. Civics Standards:

- a. Civics 14.6: Participate in discussions and debates, promoting collaboration and critical thinking.