AGRICULTURE

PUMPKIN ACTIVITY WORKBOOK



KINDERGARTEN CLASS

Pumpkin Exploration Day

ASTEEAMS HANDS-ON LESSON PLAN

LEARNING OBJECTIVES

- Explore pumpkins using their senses
- Understand that Pumpkins grow above ground on vines and can get very big
- Practice counting, grouping, and comparing
- Develop fine motor skills through tracing, drawing, and coloring
- Learn healthy eating and plant growth basics

MATERIALS

- Pumpkins and pumpkin pieces
- Paper plates or napkins
- Plastic knives (child-safe or teacher use)
- Paper towels; Small cups or bags for seeds
- Crayons, pencils, and worksheets

LESSON FLOW

1. Warm-Up (5–10 min): Introduce pumpkins and ask students what they know.

2. Classroom Activities (60 min):

- Touch and describe texture
- Cut open and observe seeds
- Save seeds for planting
- Seed counting
- Smell and taste
- Count and compare sizes

3. Worksheet Activities (60 min):

- Trace the word “pumpkin”
- Review facts & guide
- Size comparison
- Color pumpkins
- Draw a pumpkin patch
- Count and group

4. Discussion (10–15 min): Discuss origin and how to grow. Use YouTube videos for the discussion aspect.

5. Closing (10 min): Students share what they learned.

EXTENSION IDEAS

Roast seeds and bring in for a snack. Talk about the nutrition foundin the seeds

Use YouTube videos to reinforce concepts with visual content.

A Pumpkin grows
https://www.youtube.com/watch?v=AB-dfi_0TsQ

Are Pumpkins a Fruit?
https://www.youtube.com/watch?v=vLFtV4RI4Lg

From Seed to Pumpkin-Book Reading
https://www.youtube.com/watch?v=hoaFrxW2cFQ

ASSESSMENT

Observe participation, counting, and growth of understanding.

Pumpkin Adventures

Fun Facts



Pumpkins are actually a fruit, not a vegetable!



Pumpkins grow very big even over 1,000 pounds!



Usually orange, but can be white, green, or yellow

Growing Guide



Plant seeds directly in soil.



Sun: They love the bright sun!



Watering: Keep the soil moist. Don't water the leaves.



Uses: soup, pie, or snack on oven roasted seeds!

Draw an X on the smaller pumpkin





Draw a pumpkin patch

Count the Pumpkins?





Pumpkin Exploration Day!

Touch • Taste • Count • Grow

Class Activity

Teacher Prep

What to Bring:

- Pumpkins (small whole)
  - Ask students to bring in pumpkin pieces
- Paper plates / napkins
- Paper towels
- Bag or cups for seeds
- Crayons & paper
- Teacher knife

🖐️ 1. TOUCH & DESCRIBE

Ask:

- Is the pumpkin smooth or bumpy?
- Is it hard or soft?
- What color do you see?

👃 2. SMELL & TASTE

- Let children smell first
- Then taste a small piece

Ask:

Does it taste sweet, bland, or soft?

🔢 3. COUNT & COMPARE

- Count how many pumpkin pieces are in the class
- Compare big vs small

👉 Student Task:

- "We have ___ pumpkin pieces"
- Point to the biggest one

🔍 4. INSIDE DISCOVERY

Cut open a pumpkin

Ask:

- What do you see inside?
- What shape are the seeds?

👉 Student Task:

- Draw the inside

🌱 5. SEED SAVING

- Scoop out seeds
- Rinse and dry them

Explain:

"These seeds can grow NEW pumpkins!"

👉 Student Tasks:

Take out seeds, wash, dry and stick seeds on paper towels to dry completely

🎃 6. PULP & TEXTURE TEST

Explain:

"Pumpkins have stringy pulp inside!"

Kids:

- Touch the inside of the pumpkin
- Feel the pulp and seeds

Ask:

Is it slimy, stringy, or sticky?

🎃 7. PUMPKIN CLEANING CHALLENGE

- Let kids help remove seeds from the pulp

Ask:

- Was it easy or messy?

👉Student Task:

- Share with a classmate what it felt like

🧮 8. SEED COUNTING

- Count seeds in a small groups

Compare:

Who has more? Less?

👉 Student Task:

- State how many seeds they have
- Determine who has the most

🎨 9. Pumpkin PRINT ART

- Dip pumpkin pieces in paint
- Make shapes with the pieces

👉 Teaches:

Patterns + shapes +counting

Pumpkin Exploration Day

ASTEEAMS HANDS-ON LESSON PLAN

🎯 LEARNING OBJECTIVES

🌱 Agriculture Objectives
• Identify pumpkins as fruits that grow on vines.
• Describe plant needs such as water, sunlight and soil.
• Observe and discuss how pumpkins develop from flowers.

🔬 Science Objectives
• Use senses to investigate pumpkins through sight, touch, smell and taste.
• Compare pumpkin skin, pulp and seeds.
• Make predictions and record observations.
• Explore floating and sinking through STEM activities.

🎨 Art Objectives
• Create pumpkin-inspired artwork.
• Use colour creatively during pumpkin investigations.
• Express ideas through storytelling.

➕ Mathematics Objectives
• Compare pumpkins using bigger, smaller, heavier and lighter.
• Count pumpkin seeds and create simple charts.

📚 Literacy Objectives
• Use descriptive vocabulary.
• Dictate or write simple imaginative stories related to pumpkins.

💻 Technology Objectives
• Use magnifying glasses and simple tools to investigate pumpkins.
• Watch videos showing how pumpkins grow and are harvested.

🏗️ Engineering Objectives•
• Participate in prediction and problem-solving activities.
• Use measuring tools to compare pumpkin sizes and weights.

💡 Entrepreneurship Objectives
• Explore how pumpkins can be used in foods and products.
• Participate in market and farm role play.

🌍 Sustainability Objectives
• Understand that plants and people need care to grow.
• Develop appreciation for where food comes from.
• Explore healthy eating habits.

🧑‍🔬 Social and Emotional Learning Objectives
• Build curiosity and confidence.
• Work collaboratively during investigations.
• Develop communication and observation skills.
• Reflect on healthy habits and personal growth.

Kindergarten Vocabulary

ASTEEAMS Pillars *ALL*

pumpkin, seed, vine, leaf, flower, stem, grow, plant, harvest, orange, round, big, small, heavy, light, smooth, bumpy, count, measure, compare

Pumpkin Explorations

ASTEEAMS Pillars and Activities

🧡 Colour Investigation Activity

ASTEEAMS Pillars *Science • Art • Sustainability*

Materials

- Orange, Green, White Pumpkins
- Pumpkin pictures
- Paper, Crayons, Trays

Activity

- Compare different pumpkin colours.
- Explore shades of orange, yellow, green, and white.
- Discuss how pumpkins change colour as they grow.
- Create pumpkin colour rubbings and artwork.

✋ Texture Science Lab

ASTEEAMS Pillars *Science • Mathematics*

Materials

- Whole pumpkin, Pumpkin flesh, Pumpkin skin
- Pumpkin seeds, Trays

Activity

- Compare rough, smooth, bumpy, soft, and slimy textures.
- Investigate pumpkin skin, flesh, and seeds.
- Describe how each part of the pumpkin feels.
- Compare dry and wet pumpkin seeds.

🔬 Pumpkin Detectives

ASTEEAMS Pillars *Science • Technology*

Materials

- Magnifying glasses, Pumpkin pieces, Science journals, Pencils

Activity

- Investigate pumpkin skin, seeds, fibres, and flesh.
- Complete “I noticed…” and “I wondered…” prompts.
- Draw observations like little scientists.
- Count and compare pumpkin seeds.

Seed Saving Investigation

ASTEEAMS Pillars *Science • Technology• Sustainability*

Materials

- Pumpkin seeds, Water bowls
- Paper towels, Science journals

Activity

- ·Remove seeds from a pumpkin.
- Wash and dry pumpkin seeds.
- Observe changes over several days.
- Discuss how seeds can be planted to grow new pumpkins.

📏 Pumpkin Maths Fun

ASTEEAMS Pillars *Mathematics • Engineering*

Materials

- Small pumpkins, Rulers
- Measuring tape, Balance scales

Activity

- Compare pumpkins from smallest to largest.
- Explore heavier and lighter.
- Measure circumference and height.
- Count pumpkin seeds and create simple graphs.

Pumpkin Explorations

ASTEEAMS Pillars and Activities

STEM Float or Sink Challenge

ASTEEAMS Pillars *Science • Engineering • Mathematics*

Materials

- Water tubs, Whole pumpkins
- Pumpkin pieces, Recording sheets

Activity

- Predict whether pumpkins will float or sink.
- Test whole pumpkins and pumpkin pieces.
- Record and discuss results.
- Compare pumpkin weight and buoyancy.

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Creative Writing and Art

ASTEEAMS Pillars *Art • Entrepreneurship*

Materials

- Drawing paper, Crayons, Pumpkin samples

Activity

- Write a story that starts “If I Were a Pumpkin.”
- Draw a pumpkin patch.
- Design a pumpkin product label.
- Create imaginative pumpkin stories.

Pumpkin Food Explorers

ASTEEAMS Pillars *Science • Entrepreneurship*

Materials

- Pumpkin soup, Pumpkin bread
- Roasted pumpkin seeds, Pictures of pumpkin products

Activity

- Explore foods made from pumpkins.
- Discuss how pumpkins are sold and used.
- Compare different pumpkin products.
- Role-play a pumpkin market stand.

Growing Strong

ASTEEAMS Pillars *Science • Sustainability*

Materials

- Drawing paper, Crayons

Activity

- Discuss how plants and people both need care to grow.
- Talk about healthy foods and nutrition.
- Draw themselves growing strong from healthy foods.
- Explore how pumpkins support healthy eating.

Pumpkin Growing Investigation

ASTEEAMS Pillars *Science • Technology• Sustainability*

Materials

- Pumpkin seeds
- Soil
- Pots or garden space
- Watering cans

Activity

- Plant pumpkin seeds.
- Discuss sunlight, water, and soil needs.
- Observe seed germination and vine growth.
- Record observations over time.





pumpkin

