



Sensory Squash Session

Suggested Grade Level: Pre-K

Time: 45 Minutes

Subject: Science

Overview: Students will explore some varieties of winter squash using their senses, creativity, and imagination. They will also practice communication and independence by sharing their thoughts and utilizing their fine motor skills with a squash craft.

Objectives:

1. Students will be able to describe different types of squash
2. Students will be able to engage their senses in exploring squash
3. Students will be able to share their opinions on the different types of squash
4. Students will be able to demonstrate fine motor skills by creating an image with a color/paint-outlined drawing sheet.

Background Information:

Winter squash is a broad category of fruits in the gourd or Cucurbitaceae family. Their history dates back over three million years, but we recognize them now as an autumn staple. Winter squash are named for their thick outer rind that protects them from harsh winter conditions. This outer rind allowed them to historically be safely stored in cellars without being canned (Underly). However, winter squash is actually a warm-weather crop, growing from May to September. There are many varieties of winter squash, each chock full of health benefits. They are low in sugar and relatively low in calories, but their high fiber content makes for a filling dinner. Additionally, winter squash is a great source of carotenoids (beta carotene, lutein, zeaxanthin) associated with a lower risk of obesity, diabetes, and some cancers. They are also high in vitamins C and B6, protein, magnesium, and potassium. Fun fact: 500 milligrams of potassium are in one cup of cooked butternut or acorn squash (Harvard). Furthermore, winter squash can be cooked in several ways. It can be roasted or made into soups, stews, sauces, and desserts (like pumpkin pie).

Kansas Connections:

Kansas is not a top producer of winter squash in the United States. Squash in Kansas is referred to as a specialty crop. Michigan produces the most, followed by California and Florida. However, winter squash is a warm-weather crop that thrives in Kansas' hot summers (Enroth). Our state boasts numerous pumpkin patches that are open to the public. Britt's Farm, located just outside of Manhattan, Ks is a prime example. They

grow big pumpkins, mini pumpkins, butternut, spaghetti, and acorn squash. You can also visit Little Munchkins Pumpkin Patch in Alma, Cedar Creek Farm and Pumpkin Patch in Maize, Kerby Farm Pumpkin Patch in Bonner Springs, or Hickory Hollow Pumpkin Patch outside of Dodge City, to name a few.

Materials Needed:

- Book “Sophie’s Squash” by Pat Zietlow Miller
- Different types of winter squash, including a pumpkin
- Squash seeds (dry and cooked)
- Squash drawing sheets (one per student)
- Art supplies, such as watercolor paints, markers, colored pencils, or crayons


Instructional Format:

1. Review background and Kansas connections information.
2. Conduct engagement exercises.
3. Review Vocabulary.
4. Follow the procedures to complete the activities.

Engagement:

Introduction: Ask students: “What do you know about winter squash? Do you think a pumpkin is a squash? Have you ever carved a pumpkin? Eaten pumpkin pie or roasted squash? Can you think of other kinds of squash?”

Play this short video describing how a pumpkin grows and review vocabulary.

 A Pumpkin 🍠 Grows | STEM for Kids https://youtu.be/AB-dfi_0TsQ

Then, Introduce the different varieties of winter squash. You can use physical examples or a slideshow from the National Foundation for Agriculture in the Classroom:

cdn.agclassroom.org/media/uploads/LP824/winter_squash_varieties.pdf.

Finally, Read “Sophie’s Squash” by Pat Zietlow Miller. Enchanted Storyboat: ["SOPHIE'S SQUASH" written by Pat Zietlow Miller & illustrated by Anne Wilsdorf - Read-Aloud](#).

Vocabulary:

- **Winter squash:** a type of gourd with a hard rind that can be stored for several months.
- **Pumpkin patch:** a field where winter squash are grown and often open to the public.
- **Pumpkin farmer:** someone who grows winter squash.
- **Rind/Skin:** the hard outer layer that protects the squash from the cold winter air.
- **Flesh:** the soft inner layer that we eat.
- **Seeds:** the seeds on the inside can grow into new squash.
- **Texture:** How something feels when you touch it.

Procedures:

Activity 1: Sensory Squash


Set up sensory stations beforehand or when students are busy. These stations should include four senses: touch, smell, sight, and taste. You can create your own or use the ones listed below.

- Touch Station: Provide a carved pumpkin (or other squash) and allow students to feel the inside and outside of the pumpkin.
 - Smell Station: Provide roasted pumpkin seeds, roasted butternut squash, or some other type of cooked squash for students to smell.
 - Sight Station: Have students look closely at squash seeds or the skins of different squash varieties. If available, you can use looking glasses.
 - Taste Station: Offer small samples of cooked squash or squash snacks.
1. Have students rotate through each station, spending a few minutes at each one. Encourage them to consider their thoughts and feelings about each activity.
 2. Invite students to discuss their experiences with the class.

Activity 2: Squash Craft

1. Distribute the Squash Drawing Sheet found at the end of this lesson labeled or unlabeled and art supplies to each student.
2. Encourage the students to come to the front of the room to look closely at the squash before beginning to color, or plan to pass the squashes around the room so they can see them up close.
3. Give the students time to color the squash varieties, encouraging them to add as much detail and color as possible.

Career Information: Pumpkin Farmer/Pumpkin Patch Owner

 [What's it like to be a pumpkin farmer?](#)

A pumpkin farmer grows winter squash. They often own commercial (for-profit) pumpkin patches and offer fall-themed activities to the public.

Kansas Academic Standards:

Kansas Pre-Kindergarten Guide

Approaches to Learning

-Gathering information through listening. Remember what was said in the brief group discussion

-Remembering and following one- or two-step directions.

Communication and Literacy Skill Development

-Participates in conversations in increasing group sizes.

-Begins to describe objects and actions depicted in pictures.

Science

-Demonstrating an understanding of living things that exist in different habitats (e.g., fish can live in the ocean because they can breathe underwater).

National Agricultural Literacy Standards:

Plants and Animals for Food, Fiber, and Energy

T2 K-2 c. Identify examples of feed/food products eaten by animals and people

T3 K-2 a. Identify healthy food options

Culture, Society, Economy, and Geography



T5 K-2 d. Identify plants and animals grown or raised locally that are used for food, clothing, shelter, and landscapes


Supporting Resources:

Michigan Farm Bureau: [Michigan farmer George Hemmeter's pumpkin farm](#)

Prairie Yard & Garden on Pioneer PB: [Growing Pumpkins, Squash and Gourds | The Fall Harvest | Prairie Yard & Garden - YouTube](#)

Pumpkins..Not Just For Halloween. National Agriculture in the Classroom.

<https://agclassroom.org/matrix/lesson/545/>

 [Preschool Pumpkin Poem | Pumpkin Chant | Pumpkin Rhyme for Kids with Motions](#)

Author: Marissa Cook, Secondary Art Education Major at KSU, KFAC intern. Adapted from Storing Winter Squash by Bonnie Lohman to include common squash drawing sheets and sensory squash stations.

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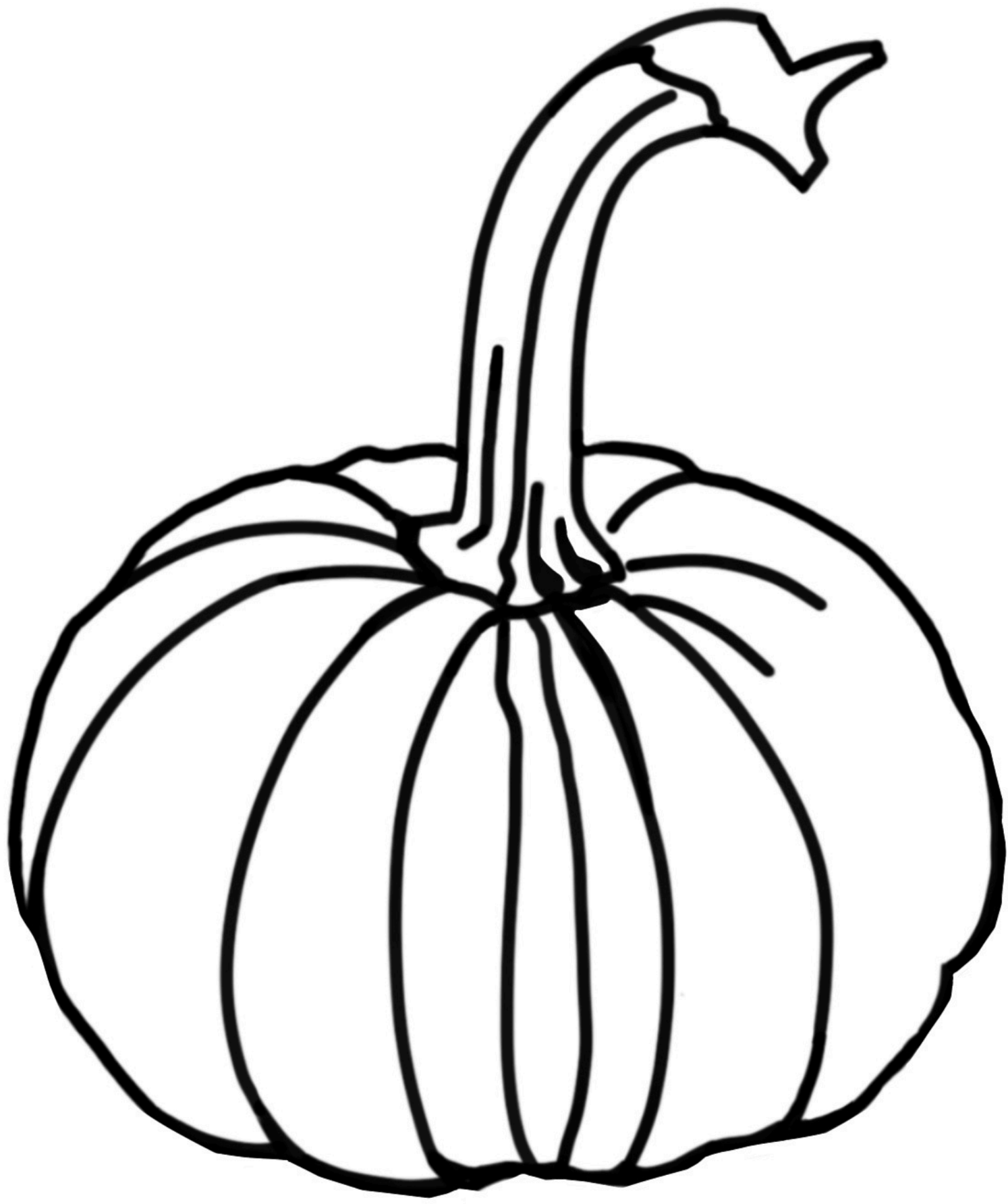
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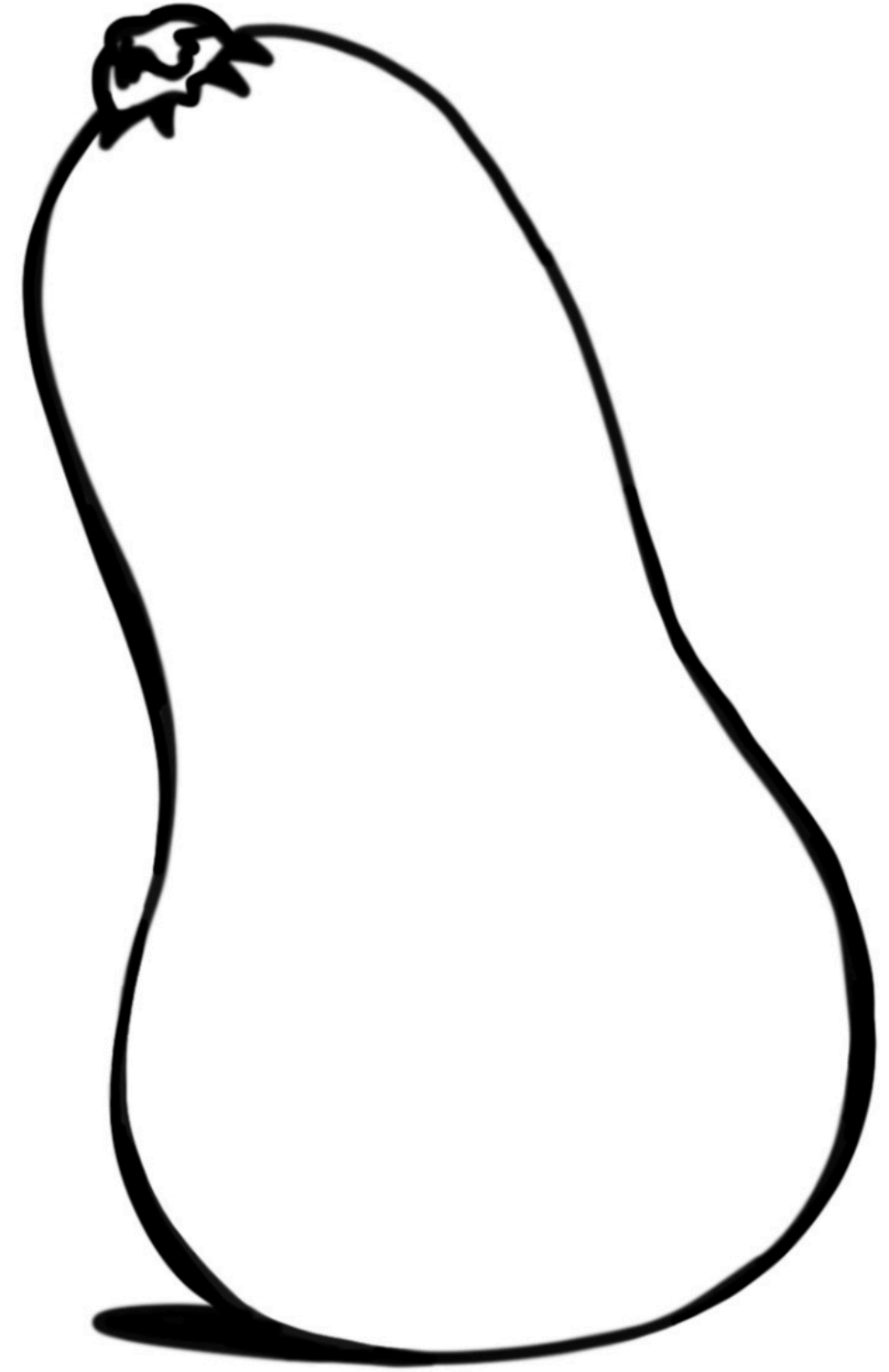
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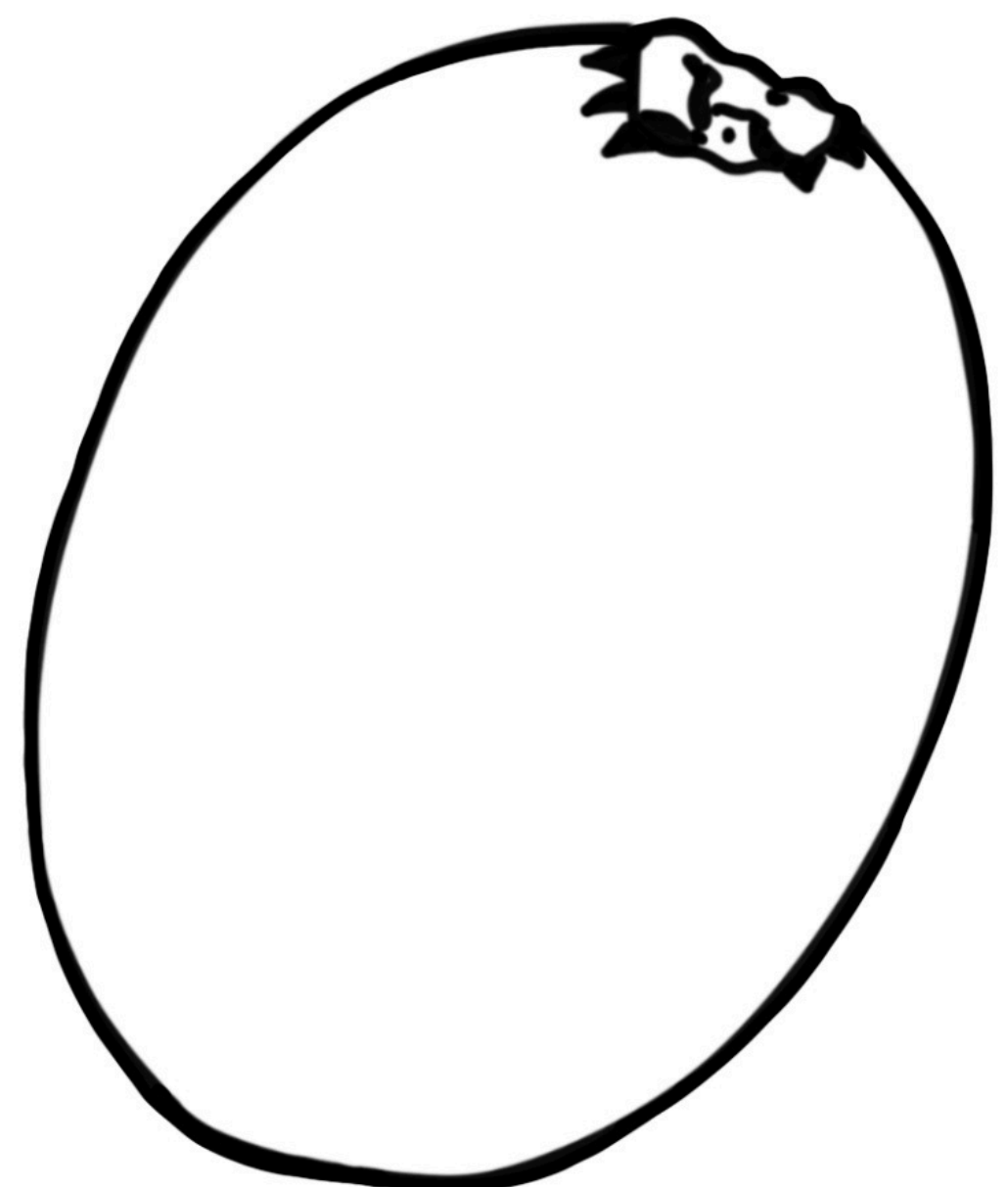
SUGAR
PUMPKIN



BUTTERNUT



ACORN



SPAGHETTI

SQUASH

