Subject: Science Grade Level: Third

Topic: Plants

Student Objectives:

1. Students will explore and observe patterns in plant characteristics and use relief art to deepen their understanding of plant trait variety. Through collecting evidence, going on a scavenger hunt, creating relief art and completing a worksheet, students will create a piece of art that displays their knowledge of variety in plant traits as well as their understanding of the elements of art.

California Content Standard (Science): https://www2.cde.ca.gov/cacs/id/web/29008

" 3-LS3-2 Use evidence to support the explanation that traits can be influenced by the environment"

California Content Standards (Arts):

1. https://www2.cde.ca.gov/cacs/id/web/31075 - " 3.VA:Cr2.1 Create personally satisfying artwork using a variety of artistic processes and materials"
2. https://www2.cde.ca.gov/cacs/id/web/31088 - " 3.VA:Cr2.2 Demonstrate an understanding of the safe and proficient use of materials, tools, and equipment for a variety of artistic processes"
3. https://www2.cde.ca.gov/cacs/id/web/31218 - " 3.VA:Cn10 Develop a work of art based on observations of surroundings"

Teaching Performance Expectation: TPE 3.3: 3. Plan, design, implement, and monitor instruction consistent with current subject-specific pedagogy in the content area(s) of

instruction, and design and implement disciplinary and cross-disciplinary learning sequences, including integrating the visual and performing arts as applicable to the discipline.1

Student Performance Expectation: Students will create a visual representation (such as relief art or printmaking) that illustrates their understanding of variety in plant characteristics and their ability to use evidence to support the explanation that traits can be influenced by the environment.

Objectives:

By the end of the lesson, students will be able to:

1. Understand how different environments affect plant growth by **collecting evidence** and **making observations** through a scavenger hunt.
2. Identify the basic needs of plants by **recognizing** that plant life requires water, sunshine, and a healthy environment to thrive.
3. Explain how plants adapt to their environment by **describing** how plants found in a variety of environments will exhibit different traits and characteristics from one another.
4. Understand artistic elements including line, shape, texture, and pattern and how they are represented in nature by **creating** relief and printmaking art pieces.

Introduction (5-10 mins)

Begin with a Brief Discussion

Open Slide Show:

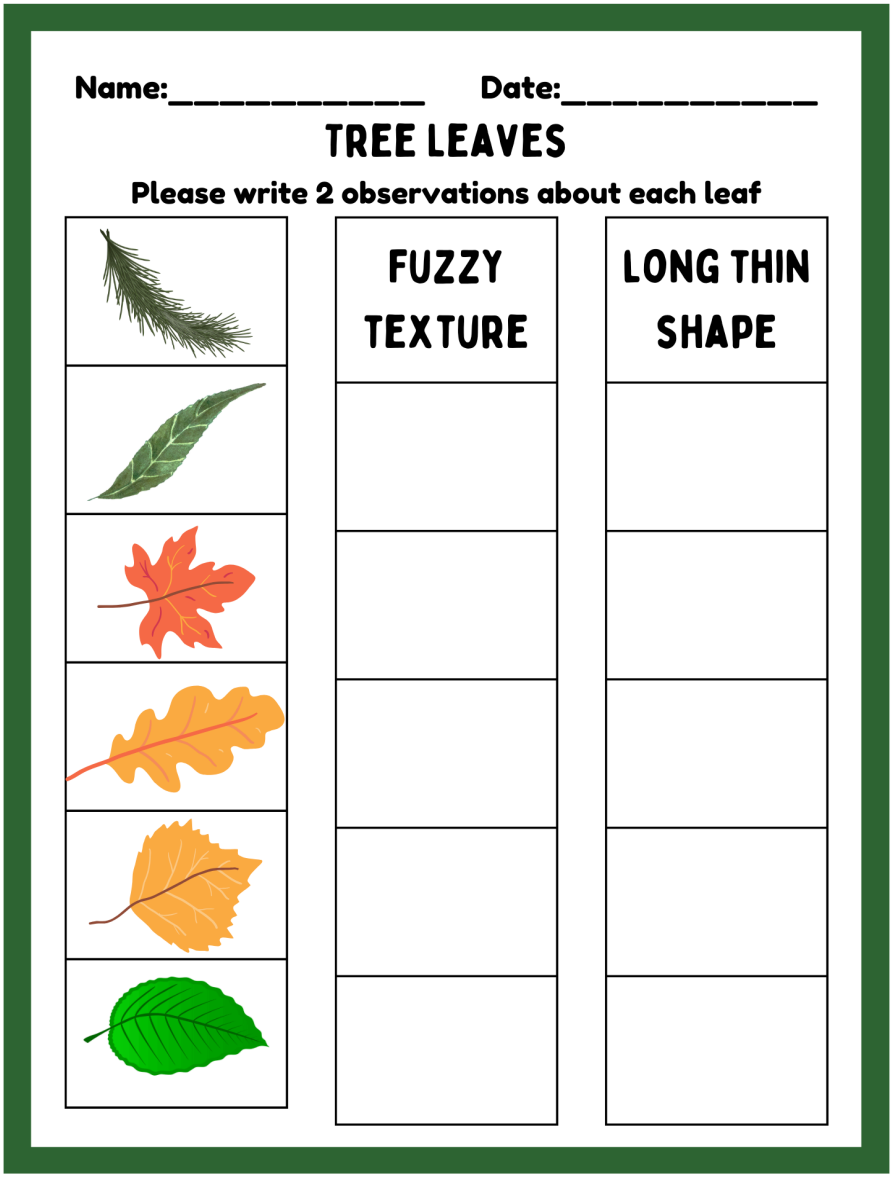
https://www.canva.com/design/DAGYXSSgox0/5cq2SyWDHNTPoKgV0B2uOQ/view?utm

_content=DAGYXSSgox0&utm_campaign=designshare&utm_medium=link2&utm_source=uniquelinks&utlId=hfd4054c94b

Ask students,

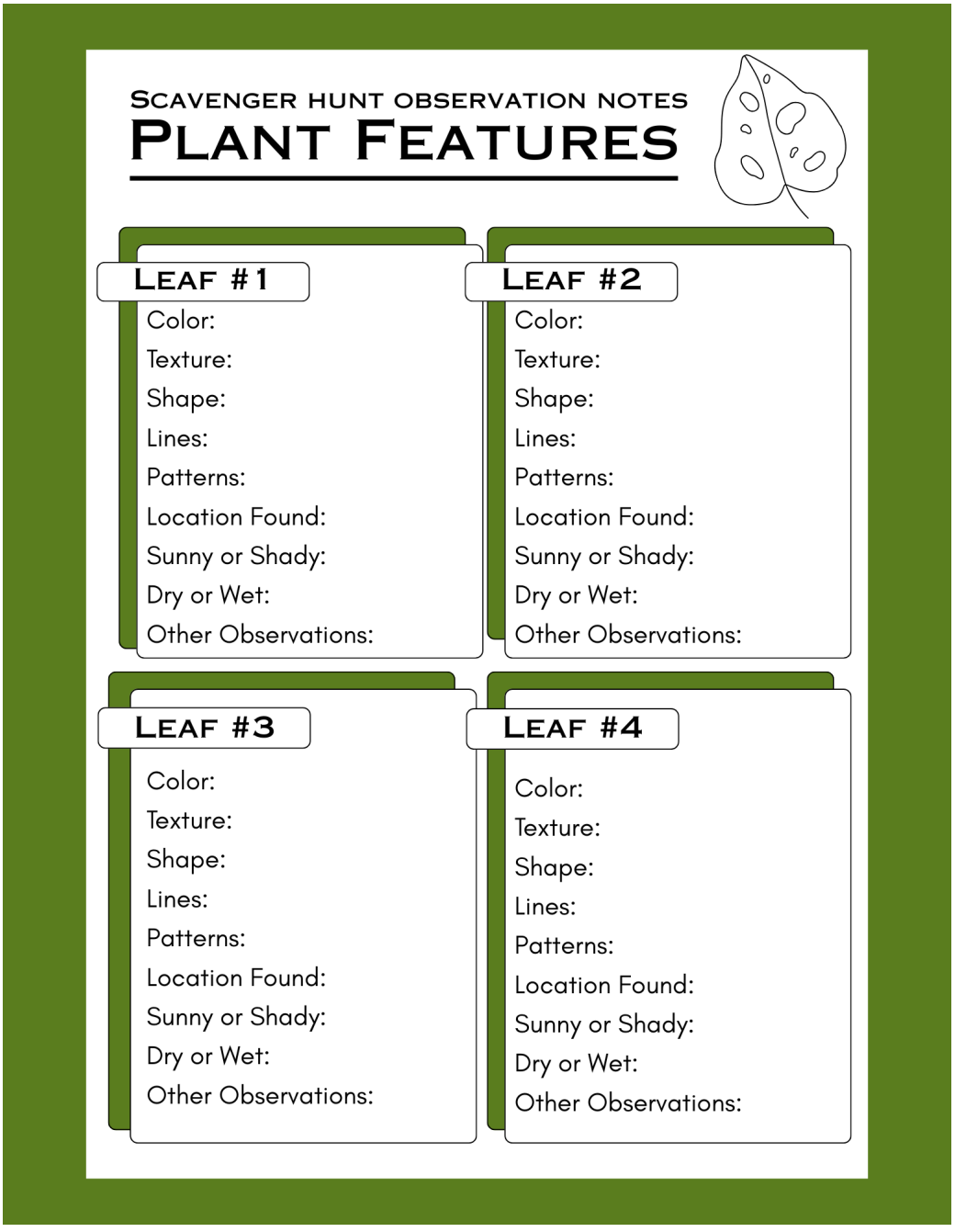
- “Where have you seen different types of plants?”
- Discuss basic plant needs (sunlight, water, air, soil).

- Introduce the concept that plants grow in different environments like deserts, rainforests, and grasslands, and each environment impacts how plants look and grow.
- Have them complete worksheet after going through the slideshow



Activity 1: Collect Evidence (20 mins)

- Take students outside, ask them to find two leaves, each from different environments
- Ask students to write down things they notice about the difference between the two leaves (color, size, texture, pattern)
- Ask students to write a description of the environments they found their leaves (shady, sunny, dry, wet, are there animals around? is it very windy? What kind of plant did it come from/is the plant nearby? Is the plant tall, short, thick, thin, flower producing)



Activity 2: Arts Integration (20-30 mins)

- Have students go on a scavenger hunt to collect a variety of leaves and flowers
- Provide each student with a piece of matte board and ask the students to arrange their findings on the board in a design that pleases them
- Once their designs are to their liking, spray their matte board with spray glue and have them gently place their leaves and flowers into the glue, massaging them in to get them to stick
- Spray their matte boards with their nature findings once again and have the students cover their board with a sheet of tinfoil, shiny side up
- Ask the students to massage the foil into their leaves and flowers with their finger tips (not nails) and reveal the textures of their designs
- Spray paint each matte board with black spray paint
- Once dried, have the students use 00 steel wool and burnish their design

Full Tutorial: https://www.youtube.com/watch?v=OJ-bv2Wea0A





- Students can also paint their relief art and use it to printmake and create leaf prints

Closure (5 mins)

- Have students answer questions about variety in environment and adaptation through specific traits on a worksheet and formally submit answers and observation notes with their art project for a grade.
- “How do differences in the environment impact the traits of a leaf?”