

Engagement and Empowerment in Natural Science at Klehm Arboretum

Journey into the Field

Senses Alive

Backpack Tour Detail

Location 1: Fountain Garden

- Arrive and Examine the Fountain Garden: What Do you See? (5 min)
- Record and describe your observation (5-10 mins)
- Record, compare and discuss findings in small groups (10 min)
- Leaf Chromatography to examine colors (20 min)

Location 2: Children's Garden

- Arrive and Examine the Children's Garden: What Do you Hear? (5 min)
- Record and describe your observation (5-10 mins)
- Record, compare and discuss findings in small groups (15min)

Location 3: Hosta Garden

- Arrive and Examine the Hosta Garden: What Do you Smell? (5 min)
- Record and describe your observation (5-10 mins)
- Record, compare and discuss findings in small groups (15 min)

Location 4: Grass Garden

- Arrive and Examine the Grass Garden: What Do you Feel? (5 min)
- Record and describe your observation (5-10 mins)
- Record, compare and discuss findings in small groups (15 min)

Location 5: Prehistoric Garden

- Arrive and Examine the Prehistoric Garden: What Do you See/Hear/Smell/Feel? (5 min)
- Record and describe your observation (5-10 mins)
- Record, compare and discuss findings in small groups (20 min)

Field Adventurer Supplies:

- 1 Backpack
- 1 Magnifying Glass
- Klehm Map
- Pencil
- Clipboard
- Paper Handout/School Journal



Each Curriculum Component will Cycle Through:

Discuss	Participants brainstorm and activate prior knowledge
Listen, Watch & Predict	Participants build knowledge and make predictions based upon experience
Explore	Participants engage in activities like a scientist or engineer to test and create
Think About It	Participants activate schema through prompts related to the activities
Extension (read & write)	Participants extend their thinking and knowledge through various media



Drilling Deeper: A Look at One Sense

Examine Sense of Sight

Location 1 of Senses Alive (K-2)

Observe the gardens and **examine** what you see. Look for small organisms many of which can be seen with the naked eye. Describe what you see. Record sight found on field journal.

Learner Experience Paths & Objectives	Instructional Skills	NGSS* Skills
<p><u>Learners will:</u></p> <ul style="list-style-type: none"> ● Experience and investigate the many organisms around you through 4 of the senses ● Analyze senses from different locations ● Evaluate contents to determine if all samples are the same ● Identify elements of trees ● Observe and analyze characteristics that are parts of trees ● Create a map model and indicate where they found different organisms ● Evaluate locations and determine patterns in microorganism location, resources, needs, etc <p>Design an experimental plan for comparing locations of microorganisms. Collect additional sense samples from the location of the student's' choice. Compare samples and discuss</p>		
<p>Embedded Vocabulary: Sample, Movement, Locomotion, Sight, Compare, Analysis, Model, Map, Resources</p>		

Materials	Inquiry Procedure
<ul style="list-style-type: none"> <input type="checkbox"/> Pencil <input type="checkbox"/> Clipboard <input type="checkbox"/> Paper Handout/School Journal 	<ol style="list-style-type: none"> 1. Arrive and Examine the Fountain Garden: What Do you See? (5 min) 2. Record and describe your observation (5-10 mins) 3. Record, compare and discuss findings in small groups (20 min)

Curriculum Symbol Key:

(*NGSS: Next Generation Science Standards. Modern K-12 Science Standards, adopted in Illinois in 2014)

Instruction Practices:								
	Gross Motor	Fine Motor	Visual Motor	Sensory	Language	Literacy	Social	Mathematics
NGSS Practices:								
	Ask & Answer Questions	Develop & Use Models	Investigation	Using Data	Math Thinking	Explanations & Solutions	Arguments with Evidence	Obtain Information