

Jay Curriculum: Unit Cover Page

Unit title: Trees **Grade Level:** 2
Content Area(s): Science **Date Created:**
Designed By: Jay Second Grade Teachers

Year 1 Map & Template Development

- Map/Matrix Completed
- Material & Resources Listed
- Draft Design Template Completed
- Initial Draft Template Document

Year 2 Piloting

- Develop:
- Performance Tasks
- Other Assessments
- Scoring Rubrics
- Piloted

Year 3 Review & Complete Assessment

- Performance Tasks Development
- Other Assessments Completed
- Scoring Rubrics Completed
- Reviewed/Revised Templates

Year 4

- Full Implementation
- Benchmarks Established

Standard(s)/Performance Indicators:

- A4 Design and describe a classification system for objects
- B1 Identify ways that organisms depend upon their environment
- B2 Describe how almost all animals' food can be traced back to plants
- B3 Give examples of how one change in a system affects other parts of the system
- B5 Describe a familiar local environment
- C1 Demonstrate that living things are made up of different parts
- C2 Demonstrate an understanding that plants and animals need food, water and gases to survive
- D2 Identify characteristics that help organisms live in their environment
- D3 Draw or describe ways in which an organism can change over its lifetime, sometimes in predictable ways (e.g. butterfly, frog)
- D4 Describe ways in which individuals of the same species are alike and different
- E3 Group objects based on observable characteristics (e.g. color, size, texture)
- F2 Analyze the relationships between observable weather patterns and the cycling of the seasons
- G1 Explain the cycles of day/night and the seasons
- J1 Make accurate observations using appropriate tools and units of measure
- J3 Use results in a purposeful way, which includes making predictions based on patterns they have observed
- K1 Examine strengths and weaknesses of simple arguments
- K3 Make observations
- K4 Participate in brainstorming activities
- K6 Discover relationships and patterns
- L1 Describe and compare things in terms of number, shape, size, weight, color, and behavior
- L2 Read and write instructions to be followed or instructions which explain procedures
- L3 Ask clarifying questions
- L5 Make and read simple graphs
- L6 Use objects and pictures to present scientific and technological ideas

- M1 Describe how legends, stories, and scientific explanations are different ways in which people attempt to explain the world
- M4 Demonstrate some practices for recycling and care of resources
- M5 Explain how their lives would be different without specific inventions or scientific knowledge

Unit: Trees

Brief Summary of Unit/Topic

Summary:

In this unit the students will be introduced to the importance of trees in their environment. Using an integrated hands on approach students will investigate and observe:

1. the parts of a tree
2. the importance and uses of trees
3. seasonal influences of trees

Stage #1: Identify Desired Results

Essential Question/s:

General understanding/s (What is worth being familiar with?)

- Parts of a tree – roots, trunk, branches, and leaves
- The function of each tree part
- Seasonal changes of some trees
- Importance of trees

Students will know:

- A tree has four basic parts
- Some trees go through seasonal changes
- Leaves make the food
- Trees and tree products are used for many things

Students will be able to:

- Observe, record, and organize data
- Graph observations and analyze them
- Compare similarities and differences among trees
- Draw, sequence, and explain the seasonal changes of a tree
- Hands-on observations through a field trip
- Communicate ideas, observations, and experiences through brainstorming, writing, drawing, and discussions

Enduring Understanding/s:

- Roots, trunk, branches, and leaves are the basic parts of a tree
- The leaves make the food for the tree
- Trees are important to the world around us.

Stage #2: Evidence

What evidence will students have to provide in order to demonstrate that they have developed the skills, knowledge and understanding to successfully complete this unit?

Performance Tasks/Products/other assessments Performance tasks should have a <u>scoring guide</u> .	<i>Performance Indicators</i> for this task.* Example: ELA: C- 1,2,3 Science: B- 3,5,7 SS His: H- 2	<u>Modalities</u> K =Kinesthetic O =oral V =visual W =written	Are <u>examples</u> available to students? ? Y, N, or N/A	Component of Local Assessment System? Y or N (See <u>aligned scoring guide</u> .)
Know the parts of a tree	A4; C1; D4; E1, 3; L1, 2			
Understand the uses and importance of trees	A1; B2; K3,4; L3,5,6; M1,3,4,5			
Understand the influences of man and nature on trees	B1,3,5; C2; D2,3; F2; G1; H2; J1,3; K1,6			
QUIZZES, TESTS, PROMPTS				
Correctly label the parts of a tree				
True/False Tree Test				
Student poster – “The Importance of a Tree”				
OTHER				
Label diagrams				
Sequencing				
Journal writing				
Technology				
STUDENT SELF ASSESSMENT				
Journal writing				

*Abbreviate: English Language Arts= ELA, Career Preparation=CP, Modern and Classical Languages=MCL, Social Studies=SS, Visual and Performing Arts=VPA

Stage #3: Plan learning experiences & instruction

What teaching & learning experiences may equip students to develop & demonstrate the targeted understanding(s)? (activities/plans):

*All materials found in kits.

1. Introductory story/key vocabulary
2. Students read and discuss appropriate literature
3. Use magnifying glasses for observations and journal writing
4. Discuss stages of development of a tree
5. Leaf charts
6. Read and discuss "A Tree is Nice" and "The Giving Tree"
7. Correctly label the parts of the tree
8. Brainstorm and discuss trees, their uses, and their importance
9. Make and simple graph on leaves
10. Use computer Lab for research and writing (Sammy's Science House – Acorn Pond).
11. Presentation on paper making and habitats by Mead Paper representatives
12. Students make their own paper
13. Field trip to Center Hill
14. Draw and label a tree through the seasons
15. Count tree rings from samples
16. "If a Tree Could Talk" big book, teacher guide, and activity cards
17. "Life in a Tree" big book, teacher guide and activity cards
18. Categorize leaves

REFERENCES: