

Grade: 4

Title: What Can We Find Out About the Louisiana State Tree?

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Student Learning Objective(s):

- The students will demonstrate a better understanding of how to find information on a subject using various types of resources.
- The students will demonstrate an understanding of what makes up the Bald Cypress tree.
- The students will demonstrate a better understanding of how to work with others to find information about a subject.

LA GLE's

Grade: 4 # 1: Ask questions about objects and events in the environment (e.g., plants, rocks, storms) (SI-E-A1)

Grade: 4 # 2: Pose questions that can be answered by using students' own observations, scientific knowledge, and testable scientific investigations (SI-E-A1)

Grade: 4 # 10: Express data in a variety of ways by constructing illustrations, graphs, charts, tables, concept maps, and oral and written explanations as appropriate (SI-E-A5) (SI-E-B4)

Grade: 4 # 12: Use a variety of appropriate formats to describe procedures and to express ideas about demonstrations or experiments (e.g., drawings, journals, reports, presentations, exhibitions, portfolios) (SI-E-A6)

Grade: 4 # 14: Identify questions that need to be explained through further inquiry (SI-E-B1)

Materials needed:

Student learning logs created prior to lesson by teacher, pictures of Bald Cypress, butcher paper, colored pencils/markers, overhead, books about Bald Cypress rented at the public library by the teacher, computer, Pre-made blank Cypress Bulletin Board (Pictures of Bald Cypress, Moss Trim, space for index cards with students information)

Detailed Procedure. Describe what the students will do in each stage. Include guiding questions you might ask to help students.

1. Engage:

Science Process Skills Indicate which science process skills students will develop in this part of the lesson.

- Observation Classification Communication Measurement Estimation Prediction Inference
 Identifying Variables Controlling Variables Defining Operationally Forming Hypotheses
 Experimenting Graphing Modeling

1. Show the class various pictures of the Bald Cypress tree on the overhead. If possible, show pictures in slide show format with a computer.
2. Ask the students to write down observations as we go through each picture. Ask the students to pay close attention to all parts of the Bald Cypress tree.
3. Then in groups of five have the students create drawings of a Cypress tree (Bald Cypress).

(Parts of the tree I want the students to know: Leaves, how the bark is different from other trees, knees, and cone-shape of the tree)

Pictures: They cannot be printed due to copyright laws. Pictures can be accessed through the internet via:

<http://www.cclockwood.com/stockimages/cypresstrees.htm>

2. Explore:

Science Process Skills Indicate which science process skills students will develop in this part of the lesson.

- Observation Classification Communication Measurement Estimation Prediction Inference
 Identifying Variables Controlling Variables Defining Operationally Forming Hypotheses
 Experimenting Graphing Modeling

Activity:

1. Have the children use their observations to come up with three to five questions individually that they would like to know about the Bald Cypress. Give them about 7-10 minutes to come up with their questions. I will also come up with five questions. (See 3. Explain)
2. As a class, talk about the questions and have the students try to condense them down so that there aren't as many and take out any repeated questions.
3. Then have a student come up and pick a question out of a hat or box. Have the student read the question to the class, and decide as a whole group how they could possibly find the answer. Could you find it in a book? On the internet? Etc.
4. Then ask the students to guess what they think the answer might be. Make sure all the students have a chance to give a guess. Ask the students to explain why they chose that guess.
5. Have the students break into pairs to find the answer to the question that was pulled out of the hat or box. They will write their answer to the question in their learning logs I have made prior to the lesson. The students will use their learning logs I have created for them to write the information they have learned about the Bald Cypress. Once they have figured out which method their group wants to use to find the answer, give them 15-20 minutes to find an answer. The point of this activity is to introduce them to the Bald Cypress tree, but more so to learn to find multiple ways of obtaining information about a certain subject. The class will be provided with informational books about the Bald Cypress tree. I will rent them from the public library prior to the lesson.

Follow-up Activity:

1. They will come to school and share with the class what they have learned about the Bald Cypress.
2. As the students share their information, they will write their question and answer on an index card and post it on a Cypress Bulletin Board. This board will be a class board that they will post in their classroom. The board will be decorated with the questions and answers that the students found about the Bald Cypress with their name underneath, along with pictures of the Bald Cypress. The students as a class will decide on the title of the Cypress Bulletin Board. (This activity can be part of the Engage activity for the next lesson)

3. Explain:

Outline the line of questioning you will use to assist students in understanding the concept. List at least 5 good questions and identify the question category (Gallagher & Aschner) in which your question falls (see text, Figure 7.6).

1. When the students return to whole group, each pair will come to the front of the class and share their information they have found about the question picked.
2. I will have the students stand on one side of the classroom if they agree, and stand on the other side of the classroom if they disagree.
3. I will ask a couple of the children to tell me why they agree with his/her answer.
4. After all of the groups share their information, we will decide how to take everyone's answers and make them into one big answer. I will write some of the key words and phrases from the students' answers on the board to help the students find one big answer. When a final answer has been decided, I will write it down on the diagram for them to refer back to when the students write in their learning logs.
5. The students will draw the Bald Cypress in their learning logs, and then write the information they have learned using correct labeling and sentence structure. The information may be color coded according to the tree. For instance the information about the leaves can be written in green colored pencil, and information about the trunk can be labeled in brown. As the students are writing in their learning

logs, I will be writing the answers on the diagram of the Bald Cypress created earlier.

1. In what areas in Louisiana do Bald Cypresses grow?
2. Why do the trunks get wider at the bottom?
3. What makes the roots of the Bald Cypress different from most other tree roots?
4. What types of leaves does the Bald Cypress have?
5. What are some purposes of the Bald Cypress? (Guide them towards the ecosystem)
6. How big can the Bald Cypress get?
7. Does the Bald Cypress grow in other states?

Some of the questions the students might ask:

1. How does the tree grow in water?
2. Why is it our state tree?
3. Does this tree have a fruit?
4. Does this tree have a flower? If so, then why is it not our state flower?
5. Why do they have ripples on the bark?
6. Are Cypress trees used for lumber wood?
7. What is moss?

4. Expand:

Science Process Skills *Indicate which science process skills students will develop in this part of the lesson.*

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|--|--|---|---|-------------------------------------|-------------------------------------|------------------------------------|
| <input type="checkbox"/> Observation | <input type="checkbox"/> Classification | <input checked="" type="checkbox"/> Communication | <input type="checkbox"/> Measurement | <input type="checkbox"/> Estimation | <input type="checkbox"/> Prediction | <input type="checkbox"/> Inference |
| <input type="checkbox"/> Identifying Variables | <input type="checkbox"/> Controlling Variables | <input type="checkbox"/> Defining Operationally | <input type="checkbox"/> Forming Hypotheses | | | |
| <input type="checkbox"/> Experimenting | <input type="checkbox"/> Graphing | <input type="checkbox"/> Modeling | | | | |

Activity: (Worksheet 1-A)

1. Have the students draw a picture of something that they learned from the lesson.
2. Then have the students create a short poem, song, cheer, or paragraph of what they drew.
3. Have all the students that want to share with the class share their creation.
4. They will do this in their learning logs.

Optional Activity:

1. Ask the students if they can think of any purposes for the Bald Cypress. Does it act as protections? Can you use its wood/bark? Etc.
2. Have the students write down their answers on the board for everyone else to see.
3. Ask the students to stand up if they agree, and to sit down if they don't agree.
4. Guide the students towards the Bald Cypress's uses; as mulch, germinating for toad and salamanders, watering holes, lookouts for birds, place to hide for the deer and other animals, etc.

5. Evaluate:

What exactly will you do, or what evidence/data will you collect, to ascertain whether the students can achieve the objectives you listed at the top of this lesson?

1. As the students are in groups looking up information for the question, I will go around listening to how well the students are communicating with one another.
2. I will have a list of each group on an index card and make notes of how well they did or didn't work together.
3. I will also be evaluating what kinds of information the groups find about the information. If one group is getting a little of task, or getting a little lost, I will help guide them back into the direction of the question, but not give any answers.
4. While the groups are sharing their information with the class, I will make notes of the answers that each group shared. This will help me see if the information was accurate and whether the answers were similar or different from one another.
5. I will also be evaluating their learning logs. This will allow me to understand whether the students understand the material, and also help me understand how the student puts his/her thoughts onto paper.
6. I will also be evaluating how much understanding they have acquired by reading over their worksheets to see how much they took away from the lesson.

Brain Compatible Learning Strategies Used in This Lesson:

- Brainstorming/Discussion
- Drawing and Artwork
- Field Trips
- Games
- Graphic Organizers
- Humor
- Manipulatives, Experiments, Labs, Models
- Metaphors, Analogies, and Similes
- Mnemonic Devices
- Movement
- Music, Rhythm, Rhyme, and Rap
- Project/Problem-Based Instruction
- Reciprocal Teaching, Cooperative Learning
- Role Plays, Drama, Pantomimes
- Storytelling
- Technology (student use)
- Visualization/Guided Imagery
- Visuals
- Writing/Journals

Lesson Source:

Description of the Louisiana State Tree. <http://www.e-referencedesk.com/resources/state-tree/louisiana.html>

The Bald Cypress Tree. <http://www.britannica.com/EBchecked/topic/49941/bald-cypress>

Pictures of the Bald Cypress. <http://www.cclockwood.com/stockimages/cypresstrees.htm>

Additional Information about the Bald Cypress. http://plants.usda.gov/factsheet/doc/fs_tadi2.doc

Worksheet 1-A: Art and Poem Activity

Draw a picture of something you learned from the lesson.

Create a short poem to go with your
picture.



