

**A 4<sup>th</sup> Grader's Guide to Lotusland**  
Victoria Thor Kornahrens, Laura Herrera  
Brandon School  
Grade Level: 4th  
Subjects: All

Project Summary: *A 4<sup>th</sup> Grader's Guide to Lotusland* meets the 4<sup>th</sup> grade life sciences standards in an innovative, cooperative and creative manner. Students are introduced to life science concepts and vocabulary prior to their fieldtrip to Lotusland. 4<sup>th</sup> graders train to become junior botanists by becoming experts about 1 or 2 plant vocabulary word(s). Each student in turn reads the posters created by their fellow student experts while answering questions based on the information on the posters. Students master difficult science vocabulary and concepts by the end of the "Reading the Walls" activity. Students then demonstrate their knowledge during the Lotusland outreach presentation and subsequent docent-led fieldtrip.

Introduction:

*Project Description:* A 4<sup>th</sup> Grader's Guide to Lotusland teaches 4<sup>th</sup> graders key vocabulary and concepts according to 4<sup>th</sup> grade life science standards using cooperative and creative learning activities. Students are successful because they become "experts" and present difficult vocabulary and concepts to each other in a non-threatening cooperative setting.

*Educational Value:* The educational value of a 4<sup>th</sup> Grader's Guide to Lotusland is that it teaches all types of learners complex science concepts and vocabulary. Upon mastery of California State science curriculum, each student feels confident that she/he is truly a junior botanist.

Student Impact:

Students will be able to correctly identify and explain botanic vocabulary and concepts during the Lotusland outreach program and their docent led fieldtrip. Students also successfully complete a "Reading the Walls" activity demonstrating knowledge of the curriculum.

Assessment:

*Evaluation Tools:* Students will be able to correctly identify and explain botanic vocabulary and concepts during the Lotusland outreach program and their docent led fieldtrip. Students also successfully complete a "Reading the Walls" and "Botany Blaster" activities demonstrating knowledge of the curriculum.

Standards:

**4<sup>th</sup> Grade Life Sciences**

2. All organisms need energy and matter to live and grow. As a basis for understanding this concept:
  - a. *Students know* plants are the primary source of matter and energy entering most food chains.
  - b. *Students know* producers and consumers (herbivores, carnivores, omnivores, and decomposers) are related in food chains and food webs and may compete with each other for resources in an ecosystem.
  - c. *Students know* decomposers, including many fungi, insects, and microorganisms, recycle matter from dead plants and animals.
  
3. Living organisms depend on one another and on their environment for survival. As a basis for understanding this concept:

Materials/Budget:

Mini posters based on vocabulary words, printed in color and laminated (30x\$5=\$150)  
Vocabulary word template for student work professionally enlarged and laminated (30x\$2.50=\$75.00)  
15 boxes of colored markers (15x\$3=\$45.00)  
15 boxes of colored pens (15x\$3=\$45.00)  
15 boxes of black felt-tip pens (15x\$2=\$30)

10 Eyewitness Plant Book by David Burnie (10x\$16=\$160.00)

Lesson Plans:

**“A Fourth Grader’s Guide to Lotusland”**

Unit Goal: Students will become “junior botanists” after mastering life science vocabulary and concepts relating to their trip to Lotusland. Students then demonstrate their knowledge during the outreach presentation and subsequent docent-led fieldtrip to the gardens.

Unit Student Objectives: Students actively engage in class and small group cooperative lessons consisting of

- teacher-led presentations and discussions,
- research of one or more vocabulary or concept,
- planning and creation of a poster with partner,
- individually identifying vocabulary or concepts, and
- participation in docent-led presentations at school and Lotusland.

**Lesson 1: Introduce Lotusland and the goal of becoming a “junior botanist”**

Objective: Students observe introductory power point introductory presentations and participate in follow-up check for understand discussion.

Materials: Lotusland preview power point presentation (ppt) (Created by V. Kornahrens)

Introduction: Explain today we are beginning to learn vocabulary and ideas for our trip to Lotusland.

Into the lesson: Present power point once through.

Follow up: Repeat ppt while asking questions about slides to check for understanding.

\*Printout of power point slides attached.

## **Lesson Two** (one or two class periods): **Research and Poster Creation**

Objective: Student “expert” partners or trios create a poster representing 1 or 2 vocabulary words or concepts after conducting research.

Materials: Construction paper for folders

\*Lotusland cover (Created by Lotusland)

\*VIP Vocabulary (Created by Lotusland)

*Eyewitness Plant* by David Burnie, DK Publishing, Inc., New York, 2004

\*Laminated color copy of the power point slide for their word/concept

\*Poster planning organizer 8 1/2” x 11” (Created by V. Kornahrens)

\*Poster template 11” x 14” (Created by V. Kornahrens)

Glue & scissors

Colored pens or markers or pencils

Fine Point Black Markers

\* Coloring packet (Created by Lotusland)

Introduction: Assign partners/trios one word or concept from the VIP Vocabulary list.  
Small groups make folders and decorate covers.

Into the lesson:

- Students research the meaning of their word using VIP Vocabulary list and shared copies of *Eyewitness Plant* (and/or other available books or sources)
- Small groups agree to the wording of their definition. Each student writes it out on a planning paper. Then, they plan the illustration. Students decide how to share the work to create their poster.
- Teacher checks for accuracy of text and illustration.
- Small groups prepare the poster using larger poster paper and various media.
- Early finishers repeat the process for another word or concept, as needed.

Follow up: Students assist teacher in creating display on the walls using the posters and ppt pictures. Color and read Lotusland packet.

\*Materials attached

### **Lesson Three: Read the Walls**

Objective: Each student reads the posters created by fellow student experts while answering questions based on the information on the posters.

Materials:     \*Read the Walls activity (Created by V. Kornahrens.)  
                  \*Word search (Created by Lotusland.)  
                  Pencil  
                  Clipboard

Introduction: Show the class the display of their posters. Announce today they will “Read the Walls” to complete sentences using information prepared by the “experts” in our class. By sharing what each student has learned, everyone will be on their way to becoming a “junior botanist”. When they finish, work on the words search .

Into: Students read the posters to complete the worksheet, cooperatively or individually, depending on student needs.

Follow up: Word search

\*Materials attached

### **Lesson Four: Check for Understanding**

Objective: Each student also successfully matches each vocabulary word or concept with a brief description. Students actively participate in Lotusland docent outreach visit and docent-led field trip.

Materials:     \*”Botany Blaster” (Created by Lotusland)  
                  \*”VIP Vocabulary” (see Lesson Two)  
                  \* Vocabulary scramble “Tanglewood Twister” (Created by Lotusland)  
                  Pencil

Introduction: Now that the students have learned from each expert in the class, it is time to review the words and definitions in preparation our visit by a docent from Lotusland and the fieldtrip.

Into: Small groups work to match the definitions on Botany Blaster with the words they have learned. They may use the VIP list and/or the posters on the wall.

Follow up: Unscramble the words on the Tanglewood Twister.

Evaluation: Teacher monitoring of student work.

### **Subsequent Meetings: Final Activities and Informal Evaluation**

- Lotusland docent-led outreach at school, which includes students answering questions asked by the docent.
- Docent-led fieldtrip to Lotusland, which includes students answering questions by their groups docent and final review by head docent.

### **UNIT EVALUATION:**

**Student success during the unit is based on responses to Lotusland docents' questions and student work in class on research, poster, Read the Walls and Botany Blaster.**