

Lesson Plan 3

Area: Plant Science

ACADEMIC STANDARDS:

Unit (ADE Competency): Landscape Design	W 1	LA 2	
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INDICATORS:

Lesson Title (ADE Competency Indicator): Identify plants by botanical names			
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<p>Objectives: Students will be able to:</p> <ol style="list-style-type: none"> 1. Identify 10 trees by their botanical and common name 2. Identify 10 cactus and succulents by their botanical and common name 3. Identify 20 ornamentals by their botanical and common name 4. Identify 10 ground covers and vines by their botanical and common name 5. Identify the water, light, and flower color, and leaf characteristic of the 50 plants identified 6. Identify the appropriate theme for the 50 plants identified 	PO:	PO:	PO:
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Need: Students need to know the identity of landscaping plants in order to design a landscape. Students also need to know the plants water, light, flower color and leaf characteristic in order to properly select a plant for a given area. Student will need to know this information when they design a landscape in class. Some students may be able to use plant identification in their SAE projects or at the Nursery CDE contest. This will be taught to 24 freshmen at Flowing Well High School.

Bell Work: O.K. is the best-known word in the world...what is the 2nd best-known word in the world?

Coca Cola

Introduction:

- ✓ **Interest Approach-** Give a Spanish instruction manual to an English-speaking student. Ask student to read it. Ask why student cannot read the manual? Ask students what a Carnigiea gigantea? Answer a saguaro. Show a mini saguaro. Every one knows what a saguaro. Saguaro is like a nickname for the plant. The real name is Carnigiea gigantea. Botanical names are used in the industry. In order to be able to talk the industries language you must know the botanical names of all plants.
- ✓ **Realia-** Spanish manual, mini saguaro

- ✓ **Transition/Draw out objectives.** Botanical names are used in the industry. In order to be able to talk the industries language you must know the botanical names of all plants.

Content (What are you going to teach?)

- ✓ **Questions and Analysis**

Students will identify the following plants:

Identify 10 trees by their botanical and common name.

1. *Acacia smallii* –Sweet Acacia
2. *Acacia willardiana* – Palo Blanco
3. *Acacia aneura* -Mulga
4. *Cerodium floridum* -Palo Verde
5. *Chamaerops humilis* -Mediterranean fan palm
6. *Cupressus sempervirens* -Italian Cypress
7. *Olea europaea* -Olive tree
8. *Pinus halapensis*- Aleppo Pine
9. *Quercus buckleyi* -Oak
10. *Syragrus romanzoffianum* -Queen Palm

Identify 10 cactus and succulents by their botanical and common name

1. *Carnigiea gigantea* -Saguaro
2. *Cycas revoluta* -Sago Palm
3. *Dasyliroton wheeleri* -Desert Spoon
4. *Fouquieria splendens* -Ocotillo
5. *Feroquieria splendens* -Barrel Cactus
6. *Yucca elata* -Soap Tree Yucca
7. *Aloe barbadensis* -Aloe
8. *Nolina microcarpa* -Bear Grass
9. *Opuntia santa-rita* -Prickly Pear
10. *Echinocereus engelmannii* -Hedgehog

Identify 20 ornamentals by their botanical and common name

1. *Acacia redolens* - Freeway Acacia
2. *Bougainvillea* sp
3. *Calliandra californica* -Fairy Duster
4. *Cassia artemesiodoides* -Feathery Cassia
5. *Cordia parvifolia* -Texas Olive
6. *Dalea frutescens* -Dalea
7. *Jasminum mesnyi* -Primrose Jasmine
8. *Juniperus chinensis* ‘pfitzer’ -Pfitzer Juniper
9. *Lantana camara* -Lantana
10. *Leucophyllum frutescens* -Texas Ranger
11. *Leucophyllum candidum* ‘silver cloud’ -Silver cloud

12. *Myrtus communis* -Myrtle
13. *Nandina domestica* -Heavenly Bamboo
14. *Pittosporum tobira* -Cape Plumbago
15. *Pyracantha fortuneana* -Fire thorn
16. *Raphiolepis indica* -Indian Hawthorn
17. *Ruellia brittoniana* -Ruella
18. *Salvia greggii* -Autumn Sage
19. *Nerium oleander* 'petite pink' -Oleander
20. *Tecomaria capensis* -Cape Honeysuckle

Identify 10 ground covers and vines by their botanical and common name

1. *Hedera canariensis* -Algerian Ivy
2. *Vinca major* - Periwinkle
3. *Ficus pumila* -Creeping Fig
4. *Dalea greggii* -Trailing Indigo Bush
5. *Rosmarinus prostrates* - Rosemary
6. *Macfadyena unguis-cati* -Cat claw vine
7. *Asparagus densifloras* -Asperigus Fern
8. *Lantana montevidensis* -Trailing Lantana
9. *Verbena rigida* -Verbena
10. *Gazania rigens* -Trailing Gazania

Identify the water, light, and flower color, and leaf characteristic of the 50 plants identified.
Identify the appropriate theme for the 50 plants identified.

- ✓ **References**
Xeriscape Natures Choice of Landscaping
Introductory to Horticulture

Methodology (How are you going to teach it?)

- ✓ **Supervised Study**
- ✓ **Discussion-** We will discuss the sun requirements, light requirements, water requirements, flower color, growth habit, leaf characteristics, and the theme in which the plant would be found.
- ✓ **Application/Cooperative Learning/Games/etc.** – Students will go on a tour of school grounds and make notes of specified plants and their location using the attached worksheet.
- ✓ **Assignments (In Class):** Students will need to identify 50 plants by their botanical name, sun requirement, light requirement, water requirement, theme and flower color. Students will use the blank form for this assignment.
- ✓ **Realia-** Live plants on school grounds.
- ✓ **References**
PLS 217 notes
Landscaping Plants and Trees Identification CD

Summary (Teacher's role):

I will show the transparencies from the landscape themes and ask students to identify the plants, theme, flower color, water and light and sun requirements.

Conclusion (Student's role):

Each student will come up with a saying, phrase, poem, etc in order to memorize the plants better. Each student will share it with the class. Students will put their phrase on their summary/ticket out.

Evaluation: The following questions will be on their unit exam from this lesson.

1. Name the common name of the *Carnegiea gigantea*. Saguaro
2. Name the botanical name of the Ocotillo. *Fouquieria splendens*
3. Identify the flower color, growth habit, water need, light need, and theme of a *Lantana camara*.
Yellow, Ground cover, low, High, xeriscape
4. Identify the flower color, growth habit, water need, light need, and theme of *Nerium oleander* 'petite pink'. Pink, bush, low, high, xeriscape
5. Name the common name for the *Macfadyena unguis*. Cat claw vine

References:

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