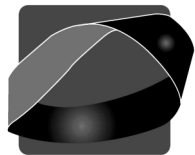


A Special Thanks to:

Krenek &  
Heinemeyer LLP

Cavender Chevrolet

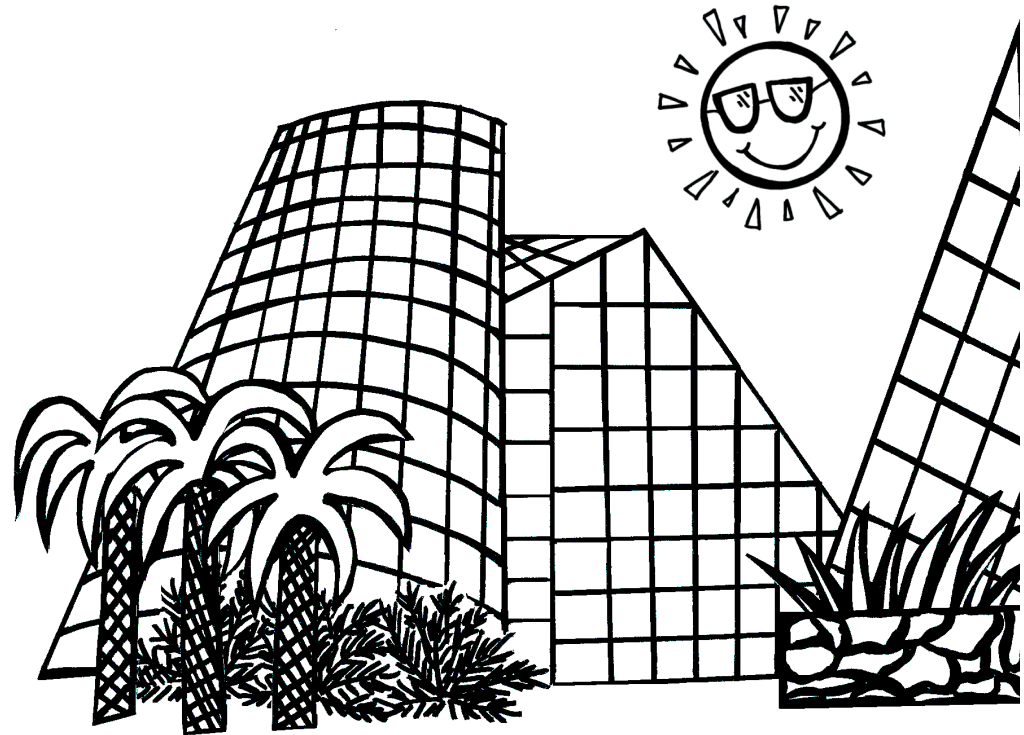
Lantana Garden Club



**EDCASA**  
EATING DISORDER CENTER  
AT SAN ANTONIO

Girl Scout Gold Award Project  
Anna Louise Heinemeyer  
Troop 467

San Antonio Botanical  
Garden



## Junior Naturalist Program

This Book Belongs to: \_\_\_\_\_  
Date: \_\_\_\_\_ Age: \_\_\_\_\_

## What is a Junior Naturalist?

A Junior Naturalist is someone who is ready to learn about and explore nature. They understand why plants are so important to our everyday lives and do their best to protect the environment. To be a Junior Naturalist takes an adventurous mind, and a willingness to learn and ask questions. Are you up for the challenge? Do you think you have what it takes to become a Junior Naturalist?

### Rules Every Junior Naturalist must follow:

1. Do **NOT** pick flowers, leaves, or any kind of plant.
2. Stay **ON** the trails and pathways.
3. **ALWAYS** stay with an adult.
4. Be **SAFE** and have **FUN** while exploring nature!!!

**Remember:** To wear sunscreen and drink plenty of water.

## To Become a Junior Naturalist:

If you are ages:

**3-5:** Complete 3 activities and reflection pg.1

**6-8:** Complete 6 activities and reflection pgs.1 &2

**9-12:** Complete 9 activities and reflection pgs.1 &2

## Thank you to everyone who made this possible:

Jennifer Brown

Live Oak Garden Club

Jason's Deli

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Becky Jennings

Caroline Broderick

Rick McManigle

Susan Heinemeyer

Alamo Heights Service Unit

Candace Andrews

Bob Brackman

Girl Scouts Southwest Texas

## Activity 1

### The Importance of Plants

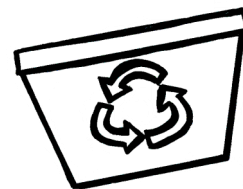
Plants are so important to us. Read why and answer the questions on the next page

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The mission of the San Antonio Botanical Garden is to **inspire people to connect with the plant world and understand the importance of plants in our lives.** Here in the garden you will learn why plants are so important in our everyday lives.

Without plants, life as we know it would not exist. All animals depend on plants for food one way or another. Through a process called photosynthesis, plants capture energy from the sun and release oxygen into the air.



People use plants in many different ways. They are used to make medicines, build shelters and make cloth for clothing. Plants are very important and by recycling, composting, planting trees, and learning more about the world of plants you can keep plants safe and make a huge impact on the environment.

## Activity 1

### The Importance of Plants

Read previous page and answer the following questions.

1. During which process do plants convert energy from the sun into food and produce oxygen?

\_\_\_\_\_



2. What can plants be used for?

- A. Medicine      B. Cloth  
C. Food          D. All the above



3. What can you do to keep the plants in this world safe?

\_\_\_\_\_  
\_\_\_\_\_

4. Circle all the things that come from plants:

Apple



water



newspaper



the sun



t-shirt



5. Pick up a piece of trash in the garden and throw it away  
in a trashcan or recycle it if it is recyclable.

Recyclable materials include paper, plastic, and aluminum.

A newspaper or a water bottle is something  
that can be recycled.

## Junior Naturalist Pledge:

I \_\_\_\_\_ promise  
to help in the best way that I can to preserve the  
environment. I will help others to enjoy learning about  
the plant and animal life in the garden. I will do my part  
**to inspire people to connect with the plant world and  
understand the importance of plants in our lives.**

\_\_\_\_\_  
Signature of participant

## Junior Naturalist Checklist:

- ☐ I finished the required number of activities.
- ☐ I finished the reflection pages.
- ☐ I took the Junior Naturalist Pledge.
- ☐ I followed all the Junior Naturalist rules.
- ☐ I am ready to become a Junior Naturalist.



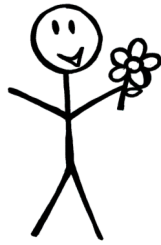
## Congratulations!

After completing all these steps, you are an  
official Junior Naturalist!

*Bring your book by the gift shop to receive your award .*

## Reflection Pg. 2

### Plants and People



The mission of the San Antonio Botanical Garden is to inspire people to connect with the plant world and understand the importance of plants in our lives.

Why are plants so important to us? \_\_\_\_\_

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How do you use plants? \_\_\_\_\_

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What can you do to protect plant life? \_\_\_\_\_

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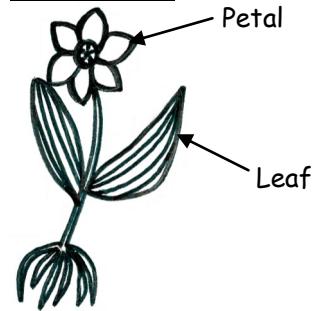
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## Activity 2

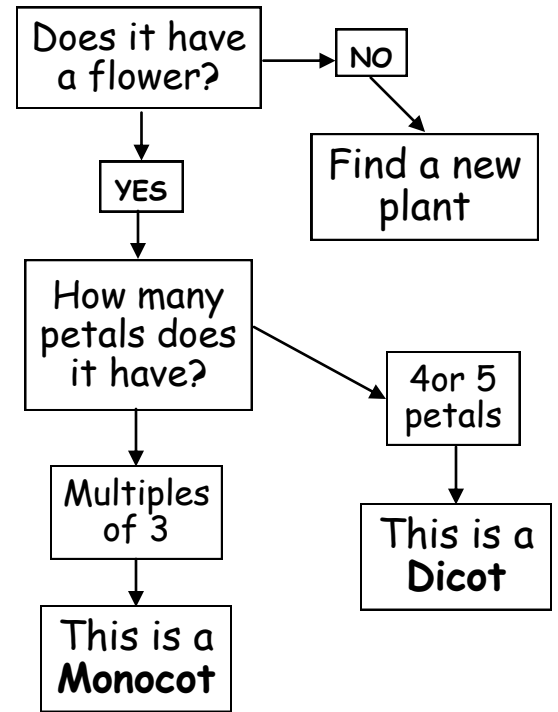
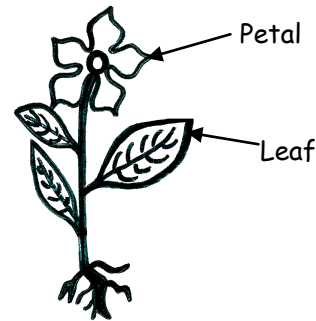
### I Spy With My Little Eyes

As you walk through the Formal and Display Gardens look at all the plants. There are two main kinds of flowering plants, monocots and dicots. Find a flower and use the flow chart below to identify whether or not a plant is a monocot or a dicot. Plants like ferns and mosses are not flowering plants, so they are not monocots or dicots. Then list the names of 3 monocots and 3 dicots. If you have trouble figuring out which kind it is look at the plant's leaves. A monocot usually has long narrow leaves, while a dicot has leaves of all different shapes.

#### Monocot:



#### Dicot:



#### Names of Monocots

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

#### Names of Dicots

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

## Activity 3

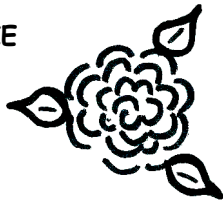
### Roses

Many of the roses in the Rose Garden are hybrids. A hybrid rose is a special kind of rose made by the combination of two different types of roses. They are combined through a process called **cross-pollination**, the transfer of pollen from one flower to another. Below are ten different names of hybrids, see if you can find them in the word search (the names can go up, down, forwards, backwards, or diagonal).

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | E | S | O | R | F | O | T | N | E | M | A | N | R | U | O | T |
| O | V | Q | S | N | R | U | B | E | G | R | O | E | G | S | O | R |
| E | D | S | S | E | I | V | A | P | E | I | R | A | M | U | Z | U |
| Y | R | E | D | C | A | S | C | A | D | E | N | P | F | T | G | M |
| H | S | U | L | B | D | L | O | F | V | Q | Y | I | O | O | W | P |
| O | B | L | Q | L | G | Q | Z | O | K | A | W | L | M | L | T | E |
| I | C | K | D | P | C | J | Q | J | I | Z | A | R | G | E | Y | T |
| C | S | M | N | V | G | C | M | V | X | J | B | E | B | Q | G | E |
| C | A | L | D | W | E | L | L | P | I | N | K | H | K | P | L | R |
| T | U | I | V | F | W | N | A | C | O | G | D | O | C | H | E | S |

CALDWELL PINK  
GEORGE BURNS  
GEMINI  
LOTUS  
MARIE PAVIE

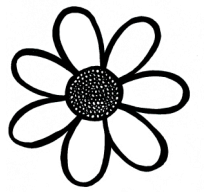
TOURNAMENT OF ROSES  
OLD BLUSH  
RED CASCADE  
NACOGDOCHES  
TRUMPETER



## Reflection Pg. 1

### My Favorite Part of the Garden

Describe or draw a picture of your favorite part of the garden:



## Activity 14

### Mystery Tree

Walk through the Pineywoods of East Texas and look at all the trees. You can find flowering and coniferous trees in this area. Some are deciduous in the fall and other stay evergreen. Unscramble the code to find out which trees are which!

1. An evergreen tree keeps its leaves throughout the year.  
One type of evergreen is a...

23 2 14 9 3 17 3 2 2



2. A flowering tree is one that produces flowers during certain times of the year. One type of flowering tree is a...



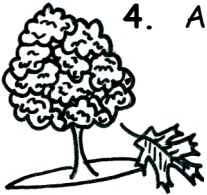
10 9 11 16 4 18 8 9 17 3 2 2

3. A coniferous tree produces cones with seeds inside.  
One kind of coniferous tree is the...



18 4 16 11 18 2 9 24 12 8 16 2 17 3 2 2

4. A deciduous tree loses its leaves seasonally.  
One kind of deciduous tree is the...



17 2 21 9 5 3 2 14 4 9 20

| A  | B | C  | D  | E | F  | G  | H  | I  | J  | K  | L  | M  |
|----|---|----|----|---|----|----|----|----|----|----|----|----|
| 9  | 6 | 23 | 14 | 2 | 24 | 11 | 1  | 8  | 13 | 20 | 18 | 10 |
| N  | O | P  | Q  | R | S  | T  | U  | V  | W  | X  | Y  | Z  |
| 16 | 4 | 12 | 25 | 3 | 5  | 17 | 19 | 22 | 15 | 21 | 7  | 26 |

## Activity 4

### The ABC's of the Botanical Garden



Find something in the garden that starts with each letter in the alphabet. It can be any plant, animal, place, or object that you see in the garden.

A \_\_\_\_\_ N \_\_\_\_\_

B \_\_\_\_\_ O \_\_\_\_\_

C \_\_\_\_\_ P \_\_\_\_\_

D \_\_\_\_\_ Q **Quercus texana**

E \_\_\_\_\_ R \_\_\_\_\_

F \_\_\_\_\_ S \_\_\_\_\_

G \_\_\_\_\_ T \_\_\_\_\_

H \_\_\_\_\_ U \_\_\_\_\_

I \_\_\_\_\_ V **Vesper Sparrow**

J \_\_\_\_\_ W \_\_\_\_\_

K **Kingbird** X **Xylosma congesta**

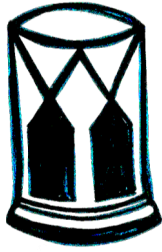
L \_\_\_\_\_ Y **Yucca**

M \_\_\_\_\_ Z **Zebra Plant**

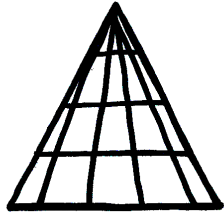
## Activity 5

### Garden Lookout

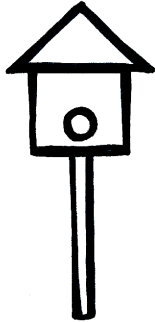
Using your map, find the overlook. The when you reach the top, look out and see how many places you can find. Circle each one you see.



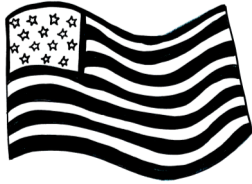
A skyscraper



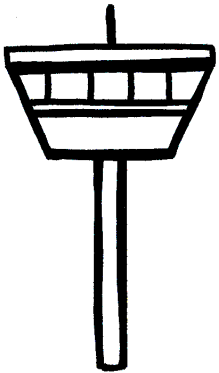
A pyramid



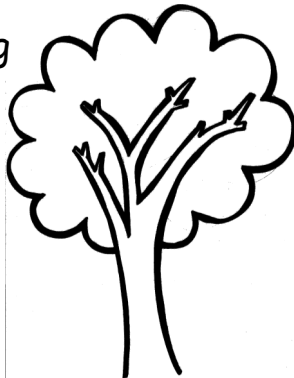
A birdhouse



An American Flag



Tower of the Americas



A tree

A I fly very quickly. I love sweet tasting flowers. Who am I?

\_\_\_\_\_ I make a lot of pecking noises. I am the reason why there are lots of holes in the trees. Who am I?

\_\_\_\_\_ I have a beautiful red chest. My beautiful chirping is the song of spring. My eggs are small and light blue. Who am I?

\_\_\_\_\_ I enjoy spending my time at the lake. My hobbies are swimming and fishing. Who am I?

\_\_\_\_\_ I am nocturnal, I sleep during the day and come out at night. Who am I?

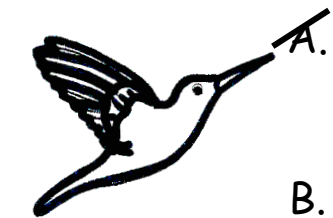
\_\_\_\_\_ My feathers are a marvelous red color. Who am I?

\_\_\_\_\_ I am the state bird of Texas. I can imitate the song of other birds. Who am I?

Activity 13

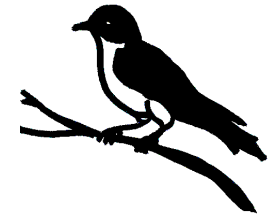
Bird Watching: Guess Who!

There are many different kinds of birds that have made the Botanical Garden their home. Unscramble the names of the birds and match them to their description on the next page.



A. Hummingbird  
mnuibighdmr

B. \_\_\_\_\_  
ukdc



C. \_\_\_\_\_  
icimrogkbn

D. \_\_\_\_\_  
nciralad

E. \_\_\_\_\_  
low




F. \_\_\_\_\_  
powdekeroc


G. \_\_\_\_\_  
bnoir

Activity 6

Sensing Nature

Take a trip to the **Sensory Garden**.  
Look around, you can see nature all around you. Now close your eyes and imagine you cannot see anything. What can you smell? Do you smell flowers? Are they sweet? What can you hear? Do you hear birds or other animals?

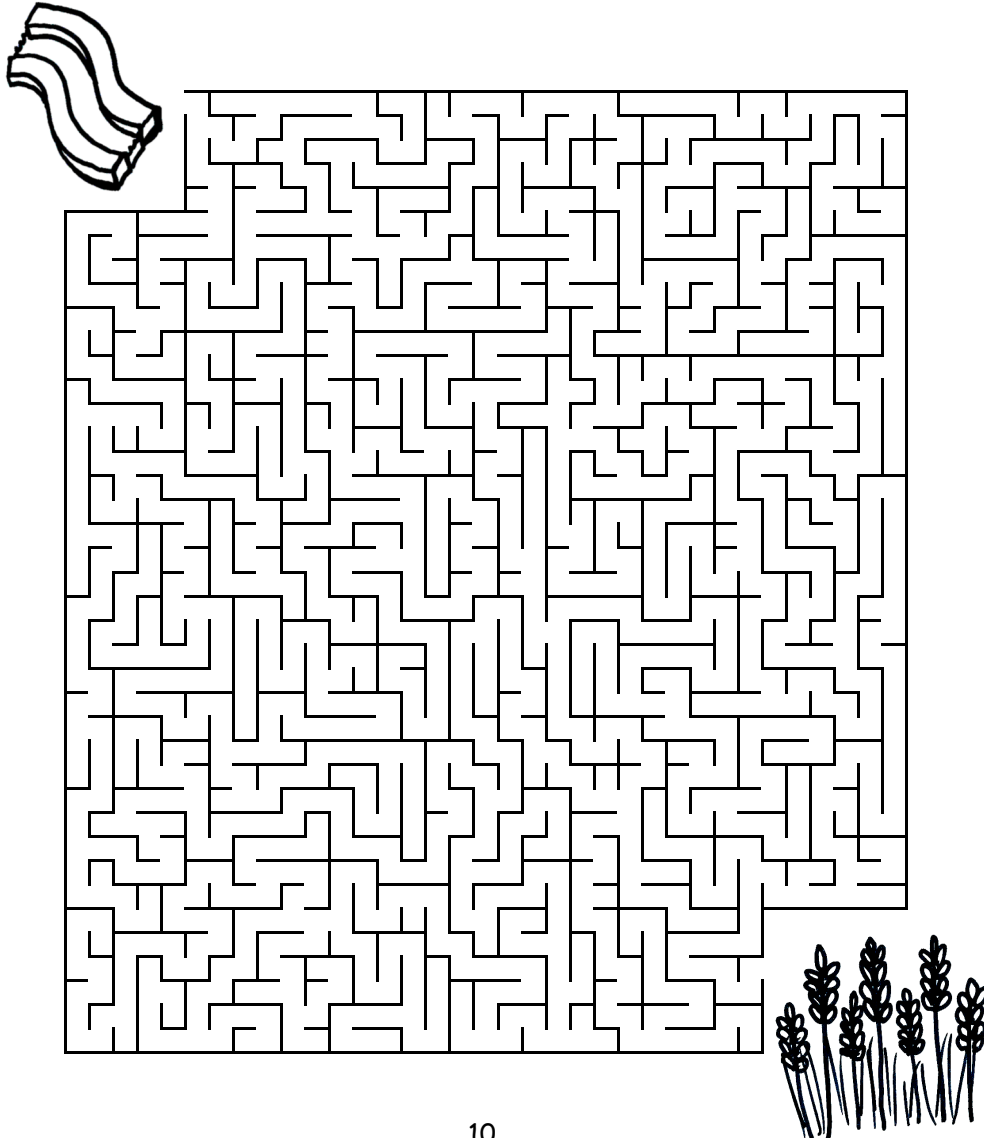
 Describe the sounds you hear: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

 Describe what you smell: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

## Activity 7

### What is an Acequia?

An Acequia is man made ditch used to channel water from a river or a stream to water the crops. In this maze, help guide the water through the Acequia to the thirsty crops.

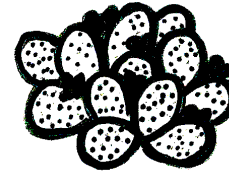


## Activity 12

### Cactus

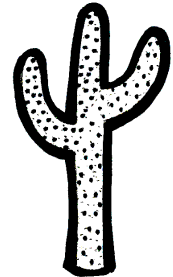
Walk through the Cactus and Succulent Garden. Be careful not to touch any of the plants. Did you know that the spines of a cactus are actually modified leaves? Cacti have spines instead of leaves, a thick, waxy outer coating, the ability to store water, and extensive root systems. All of these allow cactus to survive in hot and dry places, like the desert. Match each cactus to its name and then answer the questions below.

Prickly Pear



Barrel

Saguaro



Columnar

What helps a cactus survive in the desert? \_\_\_\_\_

\_\_\_\_\_

Do you think the shape of a cactus helps it survive? \_\_\_\_\_

**True or False:** A cactus needs water to grow.

## Activity 11

### Check it out!

Using your map, walk around the Garden and look for the special features in each area. After you visit each one, check it off.

☐ The Sullivan Carriage House

☐ A fountain

☐ The Japanese Garden

☐ Lucile Halsell Conservatory

☐ The Overlook

☐ A very small waterfall

☐ Schumacher House

☐ The Acequia

☐ Auld House

☐ A bridge

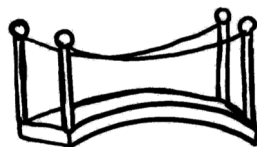
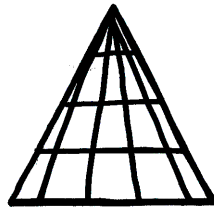
☐ The lake

☐ Log Cabin

☐ The Amphitheater

☐ Adobe House

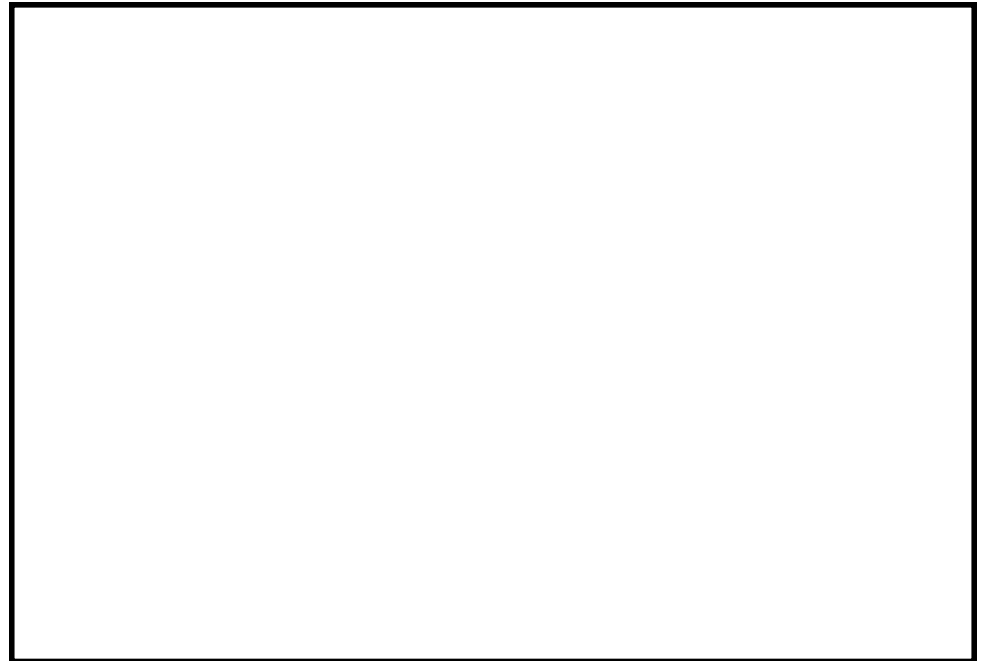
☐ The Gift Shop



## Activity 8

### Plant Recipe

Take a trip to the Northrop Tropical Room. We can use plants for all sorts of things. Look at all the different types of plants in this garden. Which plants could you use to make an ice cream sundae? Draw a picture of your sundae and write the names of the plants that you used.



Plants I Used:




## Activity 9

### Fun with Ferns



Take a trip to the Fern Grotto. Look around at all the different types of ferns. These plants have been around since prehistoric times and were an important food source for many plant eating dinosaurs. Using the ferns in the room, create and draw your own special kind of fern and fern-eating dinosaur.



Why is your fern the dinosaur's favorite snack? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Activity 10

### Texas My Texas

Take a trip down the Texas Native Trail. There are three different regions on the trail; the Texas Hill Country, the Pineywoods of East Texas, and South Texas Plains. Use the informational signs at the beginning of the trails to help fill in the blanks.

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The \_\_\_\_\_ is also known as Edwards Plateau. The water of this region is held underground in segmented layers of limestone called aquifers. The huge variety of plant and animal life depends on aquifers and spring fed streams (coming from aquifers) for water. Many of the plants in this region are endemic, meaning that they do not naturally grow anywhere else in the world. Some of these plants include the Texas Snowbell and the Twist Leaf Yucca.

The \_\_\_\_\_ receives up to 58 inches of rainfall a year. This region is home to all different kinds of pines, oaks, and wildflowers. Its soil is generally sandy and acidic. Forests and swamps characterize this gently rolling countryside.

Many mammals, such as deer, javelina, and antelope, call the \_\_\_\_\_ their home. This semi-arid area receives anywhere from 16-30 inches of rainfall each year and many of its streams and rivers flow into the Rio Grande River and the Gulf of Mexico. This region is scattered with a variety of tree and brush species, such as the Texas Ebony.

- 
- Pineywoods of East Texas



- Texas Hill Country
- South Texas Plains