

## Kaleidoscope Ecosystems

Pre-Program Curriculum Resource Guide 3rd-6th

Thank you for selecting Myriad Botanical Gardens to enrich the learning of your students. Our school programs supplement achievement towards the Oklahoma Academic Standards. Through the implementation of research-based methods and models, we strive to provide the most enriching experience possible.

**Kaleidoscope Ecosystems—Exploring the Desert and the Rainforest, is intended to empower students to discover more about the natural world by accomplishing the following learning objectives:**

Students will explore desert and rainforest ecosystems, recognize plants that humans use as resources, and examine how animals are adapted to live in different habitats.



### Program Overview

Program Overview	Timing (variable)
1. Welcome and Introductions	10 minutes
2. "Desert and Rainforest Ecosystems" Lesson	30 minutes
3. "Create a Creature" Activity	20 minutes
4. "Plants are Resources" as a Conservatory Tour and Scavenger Hunt	40 minutes
5. Conclusion, children's Garden free play, lunch	30 minutes

Your educational program will last 90-120 minutes. Groups are welcome to explore the garden grounds before and after your program at your leisure.

If your group will be split to accommodate group size, please decide in advance how you would like to divide your group into two groups. For split groups, one group will start with the lesson while the other starts in the conservatory.

### Program Objective

Students will gain an understanding of rainforest and desert ecology and an interest in rainforest and desert plants and animals. Through identifying the layers of the rainforest and features of the desert, students will learn trees and plants provide critical habitat for animals. Students will explore resources found in a rainforest. We hope students will leave with an appreciation for plants and animals and a desire to make choices that promote healthy and sustainable lifestyles.





#### Essential Vocabulary

Prepare your students for their best learning experience during the Kaleidoscope Ecosystems Program by reviewing these essential vocabulary words.

Term	Definition
Rainforest	Forests with tall trees, warm climates and large amounts of rain. Numerous plants and animals live here. Known as the world's oldest ecosystem.
Desert	Any large region that receives little rain each year. Few plants or animals live here.
Climate	The average measurements of temperature, wind, humidity, snow and rain in a certain place over many years.
Preservation	Protecting from loss or danger.
Emergent Layer	The top layer of the rainforest. Trees can grow up to 200 feet. Sunlight and wind are plentiful.
Canopy Layer	The main layers of the rainforest. Forms a roof over the two bottom layers with a maze of leaves, branches, and vines. Many animals find food here because of the many fruit trees.
Understory Layer	A tangled layer of shrubs and young trees. Plants grow large leaves in the humid and warm environment.
Forest Floor	The bottom layer of the rainforest. It is dark and few plants grow.
Humidity	The amount of water vapor in the air. Humidity increases when water vapor in the air increases.
Deforestation	The cutting down of forests. Usually the action of humans rather than natural events.
Product	An object created by something or someone.

**Study vocabulary online at [quizlet.com](https://quizlet.com) teachers can share study sets, track student performance and create assessments. Students can access interactive flashcards, learn pronunciations and play match and quiz games.**



#### Oklahoma Academic Standards

The Kaleidoscope Ecosystems Program Explores the following  
Oklahoma Academic Standards

Grade Level	Standards Achieved
3rd Grade	<p><b>Heredity: Inheritance and Variation of Traits (LS3)</b></p> <p>3.LS3.2 Use evidence to support the explanation that traits can be influenced by the environment</p> <p><b>Biological Unity and Diversity (LS4)</b></p> <p>3.LS4.3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.</p>
4th Grade	<p><b>From Molecules to Organisms: Structure and Processes (LS1)</b></p> <p>4.LS.1.1 Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.</p> <p>4.LS1.2 Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.</p>
5th Grade	<p><b>Energy (PS3)</b></p> <p>5.PS3.1 Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.</p> <p><b>Ecosystems: Interactions, Energy, and Dynamics (LS2)</b></p> <p>5.LS2.1 Develop a model to describe the movement of matter among plants, animals, decomposers and the environment.</p>
6th Grade	<p><b>From Molecules to Organisms: Structure and Processes (LS1)</b></p> <p>6.LS1.8 Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.</p>



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GARDENS**

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**Thank you for choosing the Myriad  
Botanical Gardens for your  
student's field trip experience!**

#### Methods and Models

Through the implementation of research-based methods and models, we strive to provide the most enriching experience possible.

Marzano's Art and Science of Teaching
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Explicit Instruction: Effective and Efficient Teaching
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Instructional Theory Into Practice
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Madeline Hunter Lesson Design
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Bloom's Revised Taxonomy Model
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Maslow's Hierarchy of Needs
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Gardner's Theory of Multiple Intelligences
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STEM/STEAM
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The Science of Classroom Design
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Gradual Release of Responsibility
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## Youth Group Visit Request Form

Please review our Group Programs Frequently Asked Questions and rules before filling out this form. **Please note, this form is only a request form and does not formally schedule the program. Education staff will contact you to formally schedule your program or tour.**

Email your completed form to [education@myriadgardens.org](mailto:education@myriadgardens.org)

1. Group or School Name:
2. Group Billing Address:
3. Tax Exempt Yes or No (if yes, attached proof with your form):
4. Groups are 10 or more participating students. How many students will be attending?
5. Student Age Range:
6. How many accompanying adults (1 chaperone per every 5 students is free)?
7. Group Leader Name:
8. Group Leader Phone Number:
9. Group Leader Email:
10. Are you wanting to book a School Program, Guided Tour or Self-Guided tour (please check one)
  - Taste the Rainforest School Program K-2nd \$7 per student, \$9.50 adult
  - Plant Problem Solvers School Program 1<sup>st</sup>-3<sup>rd</sup> \$7 per student, \$9.50 adult (NEW this year)
  - Kaleidoscope Ecosystems School Program 3<sup>rd</sup>-6<sup>th</sup> \$7 per student, \$9.50 adult
  - Looking at Leaves School Program 3<sup>rd</sup>-5<sup>th</sup> \$7 per student, \$9.50 adult (NEW this year 30 student max\*)
  - Guided Tour \$6 per student, \$9.50 adult
  - Self-Guided Tour (Group Admission) \$4 per student, \$9.50 adult (tax is added unless tax exempt)

**School programs** adhere to Oklahoma Academic Standards and feature an interactive lesson, guided conservatory tour and a scavenger hunt. The program runs from 10:00am to noon and is offered on Monday, Tuesday, Thursday and Friday. Our school programs are designed for grades K-6. A school program is a great choice for a school field trip for grades K-6. [School Programs have a 10 student minimum and an 80 student maximum.](#) [Looking at leaves has a 30 student maximum.](#)

A **Guided Tour** offers your group the opportunity to explore the conservatory with a knowledgeable guide. Tours last 30 minutes to an hour. We offer guided tours on Monday, Tuesday, Thursday and Friday. A guided tour is a great choice for middle school and high school students; however, it can be booked for any grade level. If your group includes students prek-6<sup>th</sup> grade, consider adding **scavenger hunts** to your group's experience. [Guided tours have a 10 student minimum and a 40 student maximum.](#)

**Self-guided tours** offer your group the opportunity to explore the conservatory at your own pace and time. You will not have a guide but booking in advance will allow you our group rate if you have 10 or more students (no max). This is a great choice for groups with numbers over our school group max or groups just wanting a self-guided experience. If your group includes students prek-6<sup>th</sup> grade, consider adding **scavenger hunts** to your group's experience.

**11. If you are booking a tour, would you like to add scavenger hunt booklets 50 cents each, how many:**

Please add three dates below. Please keep in mind School Programs run on a standard time schedule of 10:00 to noon. **If you are booking a tour, please include a preferred time next to your date.** We do not offer School Programs or Guided Tours on Wednesdays or Weekends. We cannot guarantee there will be an opening but offering us three preferred dates will streamline your booking process. We will follow up with you with-in three business days of receiving your request form to confirm a date.

School Programs and Guided Tours are on a first come first serve basis by turning in this booking sheet, and also depend on staff availability. You are always welcome to do a self-guided visit of the Crystal Bridge if our dates do not match.

**12. Preferred Date (dates must be two weeks in advance):**

**13. Your second choice date:**

**14. Your third choice date:**

**15. Do you have any questions or special accommodations you would like to discuss?**

**16. By returning this form and scheduling a visit you agree to our policies:**

I have read and agree to the attached rules document.

I understand payment is due upon arrival and must be paid in **one group total**, physical copies of a school's purchase order is also accepted, you must turn in the actual document.

If you have a large parent presence attending, please inquire about creating a parent group payment (if they will not be included in your school's payment). This will ensure your parents do not have to wait in line to pay individually at the normal rate.

We encourage assigning groups of students to a chaperone before arriving; we suggest a 1 to 5 adult to child ratio as we offer one free adult per every five students in your group. Children should be accompanied and safeguarded by their assigned adult at all times during your group's visit. Myriad Garden's staff will guide the lessons and activities associated with your field trip however we are not supervising or in the care of students during the field trip.

**Please note, this form is only a request form and does not formally schedule the program. Education staff will contact you to formally schedule your program or tour.**

Thank you for your interest in our educational experiences at the Myriad Botanical Gardens! Email your completed form to [education@myriadgardens.org](mailto:education@myriadgardens.org).