

Nature Journaling Program

1. Logistics

- a. **WHO** Environmental Learning for Kids
- b. **CONTACT** Amy Wright
Associate Education Director
303.291.7147
awright@elkids.org
- c. **WHERE** Montbello Open Space (12680 East Albrook Drive – Denver
80239)
- d. **WHEN** Thursday, April 29, 2021
4:00 - 6:00 PM

2. GOALS of Program

- a. To build nature journaling skills with ELK participants
- b. To encourage creativity through artistic representations of natural objects and species
- c. To spark curiosity about the intersection of science and art through observation of nature
- d. To present time in nature as an opportunity to cultivate mindfulness

3. Length of Time: 2 Hours

4. Materials Needed:

- a. First Aid Kit x1
- b. Watercolor kit
- c. Pencils
- d. Pens
- e. Sketchbooks
- f. Visual Aids
 - Plant diagram
 - Bird beak diagram
 - Bird Feet
- g. Large Pad for Drawing Example

- h. Sunscreen and sun protection
- i. Sketchbook Example

5. Materials: Participants' Responsibility

- a. Water
- b. Snacks
- c. Proper Hiking Footwear
- d. Art Supplies
- e. Sketchbooks
- f. Hat/Sun Protection

6. Safety Considerations + Risk Management

This lesson will involve only low risk activity, but outdoor safety protocols should be considered, such as hydration and sun protection.

Hazards:

- a. COVID
- b. Dehydration
- c. Slips and Falls
- d. Weather
- e. Sun exposure
- f. Wildlife/Biological

Mitigations:

- a. Mask wearing and social distancing; outdoor setting
- b. Ensure students bring water and have extra on hand
- c. Ensure students are wearing proper footwear
- d. Check weather before programming; Use rain backup in contingency plan; Move inside immediately in case of thunder/lightning
- e. Ensure students have hats, sunscreen, and other sun protection as desired
- f. Ensure ELK instructors have medical plans and emergency contact information

7. Smart Goals

a. Jaclyn

- Goal 1: During program delivery, actively connect subject matter to students' lives through use of metaphor and mindfulness, so that

students leave with new skills and techniques they will apply in the future and across disciplines.

- Objective 1: Use metaphors to connect nature journaling to students' lives
- Objective 2: With each new skill, draw connections to other ways it can be used and explored
- Goal 2: During program delivery, practice flexibility and adaptiveness so that as needs change and issues arise, I remain calm and connected to core mission of the program
 - Objective 1: Prepare, prepare, prepare, then go with the flow; assign clear roles and responsibilities, understand backup plans, and then use my professional judgement to adjust in real-time, as needed.
 - Objective 2: Create shared vision through collaboration with Jose and ELK; connect to our "why" so that as details need to shift, our focus is clear.

b. Jose

- Goal 1: To facilitate a program with various learning intelligence in mind other than the ones I default to.
 - Objective 1: Create an environment for participants to learn, discover and engage.
 - Objective 2: Explore methods where mindfulness is used to better connect with nature by using imagination and self discovery
- Goal 2: I will be an encouraging facilitator and work on my MICEE technique, especially Encouraging the Heart.
 - Objective 1: I will celebrate the successes of my students/partner and continue to encourage them.
 - Objective 2: I will create an environment of play and curiosity.

8. Program Outline (Connection over Content)

a. Introductions and Icebreaker (15 minutes)

- Who we are and brief career overview
- [INSERT GAME/ENERGIZER?]

b. What is a naturalist? (5 minutes)

- A person who studies nature/natural history
 - Gather information by observing nature
 - Makes connections about what they are seeing in nature
 - Cares about how the observation they are making affect the ecosystem as a whole

- You!!!

c. Could you be a naturalist? (5 minutes)

- Has anyone ever done any journaling or kept a diary?
- Does anyone know what nature journaling is?
- When you hear Nature Journaling, what comes to mind?
 - Observer and Learn
 - Creates Critical Thinking
 - Connects you with Nature
 - Build Scientific Skills
 - Spend time in nature observing what is around you, write it down, draw it out

d. What do you need to be a naturalist? (5 minutes)

- Your senses
- Curiosity
- Attention

e. Mindfulness + Yoga (30 minutes)

- ACTIVITY: How do we *notice*?
 - Our bodies (body scan + yoga)
 - Our breath (breathing exercise)
 - Our senses (meditation/senses walk)
- How does a naturalist notice?
 - ACTIVITY: Solo sit + small area observation
 - Debrief = report out;
 - What did you see? Hear? Notice?
 - What changed in that small area while you watched?

f. What is Nature Journaling? (15 minutes)

- Why do it?
 - To notice something new you haven't seen before
 - To remember details you would have forgotten
 - To stoke the fires of curiosity and have tool to explore nature
 - To fall more deeply in love with nature
 - The pretty picture is only extra.
- Background

- How do we use it? It's a scientific tool!
- Before photography, there were illustrators, especially during early time of exploration and discovery, Naturalist/Explorer did not have cameras or they were too bulky and expensive so most species discovered were reference off of Illustration. And based on scientific observation of species while exploring.
- Who has heard of Charles Darwin, Charles Darwin was on voyage to South America, he had originally studied to be a doctor but was quiet skirish, but he had a passion for the outdoors he studied under John Edermington who was a free slave from Present day Ghana, here he learned from John how to observe, write and illustration techniques. Charles was able to go on a trip to a newly discovered land to catalogue and observe the wild life. Though his observation he was later able to come up with the theory of evolution based on seeing how the finches from one island had different beaks, and how they had over several generations adjusted their beaks to be better suited to eat what was on the island.

Nature journaling is a set of skills that can be taught and learned. You do not have to be an artist or a great writer, this is a practice.

If you catch yourself saying "I can't draw," just add the word "yet" at the end of the sentence.

g. How to Nature Journal (30 minutes)

As a naturalist, you are an observer. What do you see? How would you describe it?

■ **ACTIVITY: I Notice, I Wonder**

- I Notice
 - Write about what you can observe, the sounds, describe in your own words.
- *Hike*
- I Wonder
 - Write question that you are thinking about your observations, any interesting patterns, behaviors or surroundings.
- *Hike*

- It Reminds me of
 - Does the observation remind you of something else you have experienced or felt?
- TECHNIQUES: Putting it all together (from journaling to science)
 - Record Meta Data
 - Trail name and Location
 - Weather
 - Time of Day
 - How many? Size? Color? Interesting shapes and patterns?
 - - Zoom in, Show scale, Different Views
 - Find out more:
 - You don't need to know all the answers. Write down questions and find out later.
 - Draw diagram and arrow to specific question
 - If you can't draw quickly reference colors and details
 - Based on your observation you can find out what you saw in the wild.
 - Using details and iNaturalist App
 - Have fun

It's not just about making a pretty picture; it's about recording accurate observations.

■ DRAWING LESSON

- Basics of Drawing and Shapes
- Simplify the shape
- Negative Space is your Friend
- Add Details
- Clean up

■ BUILD YOUR KIT

- Sketchbook
- Pencils
- Pens
- Small Set Color Pencils
- Erasers

- Watercolor Kit/Gouache
- Sharpener

h. Let's Practice!

- Hike and practice sheet

i. Debrief/Closing

9. Concerns and Questions

10. Contingency Plan

- a. Rain:
- b. Illness of Instructor:

11. Certifications and Qualifications:

- a. Jaclyn:
 - Wilderness First Responder



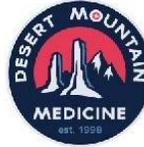
- Leave No Trace Trainer
- Park Ranger (Interpretation), Yellowstone National Park
- B.S. Environmental Science

b. Jose:

CPR

Certificate of Completion

Name: **Jose Barrientos**
Hours: **4**
Expiration Date: **07/31/2023**
Instructor: **Morgan Matthews**



The individual above has successfully completed Desert Mountain Medicine's urban and wilderness CPR curriculum in accordance with the standards of the American Heart Association for adult/child/infant CPR and AED.

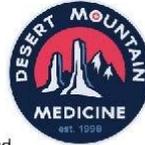
CPR certification cards are valid for 3 years.

www.DesertMountainMedicine.com

WAT

Certificate of Completion

Name: **Jose Barrientos**
Hours: **2**
Expiration Date: **07/31/2022**
Instructor: **Morgan Matthews**



The individual above has successfully completed Desert Mountain Medicine's 2 hour Wilderness Anaphylaxis Training (WAT) which includes:

- Recognize the signs and symptoms of anaphylaxis
- Administer epinephrine as a treatment
- Understand emergency follow up procedures

WAT cards are valid for 2 years, with a current CPR certification.

www.DesertMountainMedicine.com

CPR

Certificate of Completion

Name: **Jose Barrientos**
Hours: **4**
Expiration Date: **07/31/2023**
Instructor: **Morgan Matthews**



The individual above has successfully completed Desert Mountain Medicine's urban and wilderness CPR curriculum in accordance with the standards of the American Heart Association for adult/child/infant CPR and AED.

CPR certification cards are valid for 3 years.

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- Leave No Trace Trainer

NATURALIST HISTORY

■ Influential People

- Felipe Poey (French/Cuban) - 1799-1891 Naturalist/ichthyologist
 - Cuban Naturalist, Ictiología (study of fish) Cubana, Established Cuba's Museum of Natural History in 1822 Published *Ictiología Cubana*, a compendium of all the fish in Cuban waters—in the notes that accompanied his 1883 manuscript it included 758 species
- Louis Agassiz Fuertes (US/Puertorican) - 1874-1927 Naturalist/Artist Ornithology (study of birds)
 - One of the most influential illustrator for American ornithology, he started sketching in pen and ink and later transition into doing full color his work was published in several publications including New York Books and National Geographic
- Carlos de la Torres y Huerta (Cuban) 1885-1950 Naturalist
 - Main contribution was the cataloging/discovering mollusks, student of Felipe Poey
- Maria Sibylla Merian (Swiss) - 1647-1717 Naturalist/Entomologist(Study of Insects)/Botanical Illustrator
 - One of the first known women to study insects, she catalogue over 186 species. Best known for her plants and insects illustration from Suriname on the north eastern coast of South American, where she traveled with various crew for 2 years
- Ynes Henrietta Julietta Mexia (Mexican American) -1870-1938 Botanist(Study of Plants)/Flower Collector/Presser
 - Member of the Sierra Club, at 51 she enrolled at University of California Berkeley. On expeditions from Alaska to South American Collecting/Classifying/Naming Plants, 2.5 Journey into the Amazon
- Mary Treat (US) 1830-1923 Naturalist/Botanist/Entomologist
 - Wrote several articles on the behavior of insects, letter correspondence with Charles Darwin, discovered and named species of spiders

- Agustin Stahl (Dutch/German in Puerto Rico) -1842-1917
Zoologist/Naturalist/Botanist/Mineralogist/Illustrator
 - He published *Studies of the flora of Puerto Rico* and advocated for a Natural History Museum in Puerto Rico, studied the plants and animals of the island
- John Edminston (Guayana Freed Slave) - 1800s Taxidermist
 - Charles Darwin was one of his students, born in a plantation in a Dutch Colony, later acquired by Britain. Learn taxidermy from Charles Waterton who travelled to the Plantation and brought John Edminston back with him.
- Charles Darwin (English) 1809 - 1882 Naturalist/Explorer/Theory of Evolution/Specimen Collector/Illustrator
 - HMS Beagle tour on South America, 5 year tour, Connection of Evolution, Studies of the Galapagos,, Finches connection of each Island and its fruit
- Cleofé Calderón (Argentinian) 1929-2007 Agrostologist(Study of Grasses) Spoke English, Spanish and Portuguese
 - Instrumental in discovery and classifying several grass species while on exploration to South America, she only worked on the field for 12 years but made huge discoveries. Her work is evolution of grasses was significant and made a lot of discoveries in regard to Bamboo
- José Mociño (Mexico) 1757-1820 Botanist/Explorer/Illustrator
 - Joins the expedition sent by Spain to explore and catalog flora and fauna in Mexico (New Spain in those day) due to political unrest in Spain he was exiled and spend some time hanging out with Swiss Botanist Agustin Pyramus de Condelle who was able to copy José's finding and catalogue
- Rafael Montes de Oca (Mexican) 1832-1888
Author/Illustrator/Naturalists
 - Commissioned to collect plants on the Mexico-Guatemala border But his true passion and contribution to the the scientific community is with his studies and illustration of the Mexican Hummingbird or Colibri, he published in 1875 *Ensayo Ornitológico de los Troquilideos o Colibríes de Mexico*
- John Muir (US) 1838-1914 Conservationist/Writer/Naturalist
 - Establishing protection and creation for Sequoia National Park and Yosemite National Park to protect the Natural Resource influence President Theodore Roosevelt in creating and preserving National Parks
- Shelly Minor Huff (African American) Biologist 1971
 - Started her career with U.S. Fish and Wildlife, then worked at the Chesapeake Bay Center for Environmental Studies in

Edgewater Maryland. Advocated for wild boar removable in the Great Smokey Mountain National Park.

- Cecile Pfulb-Kastner(French) 1900s Botanish/Lithographer
 - Illustrated Volume 1 and 2 of Nouvelle Flore Coloriée de Poche De Alpes et des Pyrénées, a guide to identifying flowers and plants in the french Alps. Women were frown upon for working in those day but she was so good that she managed the Title of Academy Officer and Botanical lithographer

■ Influencing People

- Ratna Singh (New Delhi) Indians First Women Naturalists
 - “People were not used to seeing women in the wild”, working at a tiger preserve, now she is a mentor for other women in the field. Conservation is not a mainstream view. Men often ask if they want her to do part of her job and she has to be very assertive with her guest.
 - <https://www.instagram.com/ratnasingh9/?hl=en>
- Corina Newsome (US) African American
 - Community Manager for the Georgia Audubon Society and biology Master Student at Georgia Southern University. Started her career as a field wildlife biologist as a zookeeper
- John Muir Law
- Teagan White Naturalist/Illustrator
 - Bring awareness to treatment of animals with expressive composition and color.

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