



Class Curriculum Guide

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HUMANITIES  :

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 Ancient Graffiti
 Ancient Greek Drama
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 Biff Bam Pow (History of comic books)
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 Book Making: or Los Loco Libros
 Calligraphy
 Close Encounters
 Creative Weaving
 Cryptography: The Science of Secret Writing
 Secret Codes
 Dada (language)
 Different Strokes For Different Folks
 Double Vision
 Drawing
 Duck Tapeology
 Dynamic Movement
 Feed Your Face
 Forest Fantasia
 Gum of Your Business
 Haiku Deathmatch
 Hear Ye, Hear Ye (Newspaper)
 Huckin' Stuff (Meditation)
 It's My Write! (Creative Writing)
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 Barbrietta Stones (Archeology)
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Oil Wars!
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Simulation City
Staying Alive
Stones and Bones
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Swim For Your Lives (Hurricanes)
Timber?
Tool Safety
Trailblazing
Trekking Together (Nature Trail Design)
Trial of the Lorax
Vikings
Water Resource Game
We the People
We're Revolting
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EARLY AMERICA



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Colonial Candles
Colonial Cooking With a Slice of Home
Colonial Feast (Thanksgiving)
Colonial Sled Building
Colonial Soap Making
Early American Toys
Fencing (Wood Fence Construction)
Fireplace Construction
Igloo Making
Inipi Construction (Native American Sweat Lodge)
Kachina Puppets
Lacrosse
Let 'er Roll (Colonial Farming)
Little House in the Big Woods (Log Cabin)
Native American Bone Game

Native American Cooking
Native American Games
Native American Symbols
Natural Dyeing
The Old Mill Stream
One in Harmony (Native American Trapping)
Out on a Loom (Looming)
Plumping Mill (Early American Water Power)
Rags to Riches (Sock Dolls)
Root Cellars
Sap Sucking (Black Birch and Maple Syrup)
Spinning
Sticks and Stones (Primitive Tools)
Stone Wall Construction
Sugar on Snow
Sweep 'em Off Their Feet (Colonial Broom Making)
Tanning
Using the Inipi
Well Building
Wood Furniture
Woodland Ceramics (Native American Pottery)
Woodlot Development (Permanent Shelter Building)
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POPULAR LARGE GROUP ACTIVITIES

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Quest: Teambuilding
Squest: Science fair/teambuilding
Night Experience (Night Hike)
Predator-Prey
Thursday Night Live!
Multicultural Fair



Nature's Classroom Classics

Curious about some of our most requested classes?

Looking for some direction on which classes to start with?

Check out some of our tried and true class offerings below!

Endangered Egg Babies

This class uses egg “babies” as an interactive and engaging introduction to the issues faced by endangered species. Students will have the chance to design, name, and place their egg baby in various predicaments, which simulate the threats wildlife can and does face.

In this class, students will:

- ❖ Be able to identify five causes of animal endangerment; habitat loss, poaching, invasive species, pollution, and overharvesting
- ❖ Discuss the ways animals adapt and/or attempt to adapt to environmental change
- ❖ Recognize the importance of protecting ecosystems, and be aware of the ways species within an ecosystem are connected

Hot Air Balloons

This class tasks students with designing, creating, and launching tissue paper air balloons. This provides an exciting and tactile introduction to the concept of convection, and to the physical properties of the air around us.

In this class, students will:

- ❖ Be introduced to concepts of convection, heat and energy transfer, and density
- ❖ Become familiar with the physical properties of air, and how air balloons work
- ❖ Identify the steps of the scientific method as they make inferences, design, and launch their air balloons



Humanities	Ecology	Botany	Zoology	Social Studies	Chemistry	Primitive Skills
General	Human Health	Physics	Mathematics	Earth Science	Space Science	



Dissection

Whether it's a frog, a rat, or a shark, dissection classes are always a hit. Students will have the chance to examine, observe, and assist with dissections on an appropriate level for their grade.

In this class, students will:

- ❖ Be able to identify characteristics and adaptations of specimen animals, and recognize the basic functions of organs and features they find
- ❖ Compare and contrast what organs and features they locate in their animals to other types of organisms (mammal vs. amphibian, etc.)
- ❖ Learn age-appropriate use of examination instruments such as forceps, scissors, pins, and scalpels, and recognize protocols of conducting a dissection

Feed Your Face

This class is a great tactile and interactive way to introduce concepts of sustainability and biodegradable products. Students will create oatmeal and honey face scrub, potentially use an herbal steam, and/or concoct another environmentally friendly skin pampering product. In this class, students will:

- ❖ Be able to identify examples of biodegradable products, and the benefits of using them
- ❖ Recognize the impact of cleaning products/cosmetics/etc. on our environment, in particular, their impact on drinkable water
- ❖ Learn how people throughout time have used items in their environment for skin care/wellness/cosmetic purpose



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Geodome I

This class is a great way to satisfy the builders and the climbers in your group! The class begins with a discussion of geometric structures, and segues to hands-on practice of clove hitch knots, and square lashing of logs. The students work together to construct a geodesic dome structure, that, if constructed well, can be climbed on and left for students to enjoy on future transition times.

In this class, students will:

- ❖ Identify the strengths of building structures in different shapes (triangle, pyramid, hexagonal, etc.)
- ❖ Learn and obtain practice in tying clove hitch knot and square lashing
- ❖ Recognize the strengths and any potential weaknesses in their construction attempts, and work as a team to construct a secure and climbable geodome

Geodome II

This class allows students to create another incredible geodesic structure. Using pvc piping and connectors, this multi-step process will result in a large dome taller than the students themselves. While not climbable, this structure is a fun construction opportunity!

In this class, students will:

- ❖ Identify the strengths of building structures in different shapes (triangle, pyramid, hexagonal, etc.)
- ❖ Construct a large geodesic structure, communicating and working as a team to put together various pentagon and decagons



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Water Rockets

This popular class begins with a brief discussion on rockets and how they work. Using empty liter soda bottles, construction paper, a lot of duck tape, and a dash of silliness (okay, perhaps more than a dash), students will work in groups to construct a water rocket of their own. The class wraps up with the launching of the water rockets, and perhaps a few revisions (time allowing).

In this class, students will:

- ❖ Be introduced to Newton's Laws of Motion, and how they relate to rockets (may learn a bit about the history of rockets/space travel)
- ❖ Discuss concepts of air pressure, gravity, and mass
- ❖ Design a water rocket and develop hypotheses on how their modifications will affect their rocket's flight

Salamander Gander

Salamanders are a favorite find for kids at Nature's Classroom, and this class is all about them. Students will have the opportunity to go out on the grounds, in the woods and near the streams, and look for salamanders. If a frog or a snake joins the journey, even better! This active and enjoyable class incorporates discussion on amphibians, habitat, and leave no trace principles.

In this class, students will:

- ❖ Learn what amphibians need to thrive and survive, and how to catch/handle them in a kind and appropriate way



- ❖ Recognize some common species of salamanders and newts in the area, and where they live
- ❖ Identify characteristics of amphibians like salamanders, newts, and frogs

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Camouflage and Stalking

Looking for a class that gets kids out and moving? This class begins with a discussion on adaptations, referencing the mechanisms of natural selection, and mutations. Students will learn about various forms of camouflage and play various games which reflect these concepts. After attempting to camouflage themselves in various activities, the last feat of the class is learning some stalking techniques!

In this class, students will:

- ❖ Learn about mechanisms of natural selection and evolution, animal adaptations (structural vs. behavioral)
- ❖ Identify five types of camouflage; background coloration, counter-shading, disruptive pattern, mimicry, and dynamic camouflage
- ❖ Imitate various animal stalking techniques, and recognize the different techniques used by different types of animals














Shelter Building

In this class, students will get out in the woods and construct their own shelters. They will learn the pros and cons of various shelter materials, and how to build a survival shelter that will maintain heat, keep out the rain, and be structurally sound.

In this class, students will:



- ❖ Identify optimal locations to create a survival shelter, and locate materials in the natural environment to use in building a shelter
- ❖ Learn the characteristics of a solid shelter; the size, shape, and construction
- ❖ Practice tying clove hitch knots, and work with classmates to create a secure shelter

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Fire Building

This class gives students the chance to try out their fire building techniques. The class will introduce the fire triangle, and provide an overview of the various ways a fire can be started (both natural and man-made). Students may have the opportunity to use flint and steel to start their fires, as well.

In this class, students will:














- ❖ Identify the components of the fire triangle (fuel, oxygen, ignition source)
- ❖ Recognize the ways fires are started and how they alter a landscape/are part of the natural world
- ❖ Learn the techniques required to build a fire, and put into practice

Nature Art

This creative class can be tailored to the passions and inspirations of the students. It begins with students going out and collecting natural items such as leaves, stones, acorns, etc. Whether it's creating a nature mobile, or making a mosaic design with their findings, this class inspires students to look a little more intently and mindfully at the natural world around them. In this class, students will:

- ❖ Learn about the concepts of symmetry, balance, and complimentary colors
- ❖ Create a piece of nature art with items that they have collected
- ❖ Be introduced to ideas of mindfulness and appreciating the littlest things in nature



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Fruit Dissection

This class is a fun way for students to look at an ordinary piece of fruit in a new light. After a discussion on fruit development and characteristics, the students will be given a fruit such as an orange, kiwi, avocado, or even a coconut. They will examine it, draw it, and dissect it. They can look at their fruit from various perspectives, such as an artist, a scientist, etc. In this class, students will:

- ❖ Note similarities and differences between different types of fruits and fruiting plants
- ❖ Recognize different strategies plants use to have their seeds dispersed
- ❖ Identify why fruits have characteristics such as being sweet, being certain colors, etc.

Wildlife Wrestling Federation

This class is a great creative output for students, and focuses on concepts of animal adaptations. The class begins with a discussion on adaptation, and the students are divided into groups to create an animal wrestling champion. Beginning with two animals combined together, the students then bid on extra traits such as night vision, quills, and wings. Finally, the students will use dice and their debate skills to determine which animal will emerge as the champion.

In this class, students will:

- ❖ Recognize the relationship between animal adaptations and their environments
- ❖ Understand the trade-offs animals may have in their structural and behavioral adaptations
- ❖ Practice debate skills when presenting arguments and counter-arguments for their wrestling champion



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Roller Coasters

This class gives students a chance to turn a classroom into a theme park, filled with roller coasters made of pool noodles. After a brief introduction of basic physics concepts, students will be divided into teams to create their roller coasters and test them out with marbles as the roller coaster cars. After the creations are complete, students have the opportunity to showcase their coaster to the class.

In this class, students will:

- ❖ Review concepts of potential energy, kinetic energy, acceleration, and g-forces
- ❖ Create roller coasters and experiment with loops, jumps, and turns; problem solve with their team to create a successful coaster

Get Lost

This class begins with direction on how to use a compass and to read a map of the Nature's Classroom campus. The instructor will lead students to a location on campus which the students are unfamiliar, but the instructor knows well. Using the map, compass, and navigational skills, the students will have the opportunity to find their way back from being "lost". This is a great class to increase confidence and encourage communication and problem solving, with the instructor providing support as necessary.

In this class, students will:

- ✦ Learn to use a compass effectively, to orient and read a map; recognize the difference between true north and magnetic north
- ✦ Identify important features for directions and myths regarding orientation in the woods
- ✦ Work and communicate as a team to determine route and direction



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Wild Edibles

This class will be an exploration of the local area, of the woods and fields, in search of edible plants. The students will have the chance to safely eat some edible plants, with instructor approval. This is a great way to open student's eyes to the bountiful resources in our environment that often go unnoticed.

In this class, students will:

- ✦ Learn identification skills for a select set of edible plants
- ✦ Recognize the risks of foraging and the importance of guided knowledge in the woods
- ✦ Develop an awareness of where edible plants may be found and their characteristics

Outdoor Cooking

This class begins with an overview of building a fire and fire safety. Students then have the opportunity to learn outdoor cooking methods. At the end of class, there will be the chance to eat the items that they prepare.

In this class, students will:

- ✦ Learn various outdoor cooking methods, including stick cooking, pot cooking, a box oven, and foil cooking
- ✦ Review fire building techniques and how to safely construct and extinguish a fire



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Animal Tracking

Searching the woods for animal tracks is always a fun challenge. This class gives students a chance to locate, identify, and follow animal tracks on a hike with their instructor. They may also create a plaster cast of an animal print they discover.

In this class, students will:

- ✦ Become familiar with tracking terminology
- ✦ Learn about local wildlife and the animal tracks that they create
- ✦ Develop inferences and make deductions about the prints and paths they discover

Mega Structures

This class provides a hands-on introduction to various geometric shapes and their properties, particularly as they relate to construction and architecture. The students will construct a large tetrahedron using only newspaper and tape.

In this class, students will:

- ✦ Identify various geometric shapes, including a tetrahedron
- ✦ Recognize the strengths and weaknesses of various shapes when building structures
- ✦ Collaborate and communicate with their classmates in constructing their tetrahedron



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Cookie Mining

With critical ingredients such as chocolate chip cookies, toothpicks, and tea-light candles, this class is a wonderful way to engage students' imaginations. A simulation of the American gold rush, students will be the miners on a mission to collect precious gold. The instructor will be leasing out the land and equipment they need to strike it rich, and will also be analyzing the quality of their finds.

In this class, students will:

- ✦ Evaluate risk and problem solve when purchasing their equipment and in encountering unexpected obstacles
- ✦ Recognize the difficulties miners faced during the American gold rush, and the power dynamics often at play
- ✦ Gain a basic understanding of the mechanics of mining and its environmental impact

It All Flows Downhill














This class gives students an introduction to watersheds and city planning in an engaging simulation. Students will be divided into groups and made council members of their very own town. They must decide whether to approve or deny various building proposals for their land, engaging critical thinking skills and often inspiring their inner actor.

In this class, students will:

- ✦ Learn what a watershed is, and different ways cities obtain drinking water
- ✦ Recognize the importance of clean drinking water, and some of the complexities of balancing economic growth and environmental sustainability



- ✦ Gain a better appreciation of local democratic process

Humanities	Ecology	Botany	Zoology	Social Studies	Chemistry	Primitive Skills
						
General	Human Health	Physics	Mathematics	Earth Science	Space Science	
						

Arch Bridge

From a discussion of arches and the historical significance of arch design, to building an arch bridge from premade Styrofoam blocks, this class is a fun and tactile way for students to problem solve and become engineers for an afternoon.

In this class, students will:

- ✦ Learn the components of arch construction
- ✦ Understand the basic mechanics of the Roman arch bridge
- ✦ Communicate and work as a team to create an arch bridge














DNA Extraction

This class begins with a discussion of DNA and genes, of what they are and where they are located in living organisms. Students then focus on food items, using soap, enzymes, and rubbing alcohol to extract DNA from their samples.

In this class, students will:

- ✦ Define DNA and identify its basic structure
- ✦ Note the chemical reactions during the extraction process and the ingredient properties that allow the reactions to occur



Humanities	Ecology	Botany	Zoology	Social Studies	Chemistry	Primitive Skills
						
General	Human Health	Physics	Mathematics	Earth Science	Space Science	
						

Adventure Team

This popular field group activity can be made into one of our class offerings. The adventure team (A-team) course contains various ropes challenges that students face as a group, requiring extensive communication and teamwork to complete successfully.

In this class, students will:

- ✦ Communicate effectively with all members of their group
- ✦ Rely on each other for both maintaining security on rope obstacles and also for successful navigation of the task
- ✦ Be inspired to think outside of the box and strategize to accomplish team goals

Watery Wonders, Pond Investigators

This class begins with a discussion of water sources, their properties, and uses by humans and wildlife alike. The students will then go on a search for various water sources, and take samples/run tests to determine water characteristics.

In this class, students will:

- ✦ Implement the scientific method to design their sampling procedure, collect data, and analyze the results
- ✦ Learn about various water characteristics such as pH, oxygen concentration, temperature, depth, and velocity
- ✦ Recognize how water properties positively or negatively impact wildlife and human populations



Humanities	Ecology	Botany	Zoology	Social Studies	Chemistry	Primitive Skills
General	Human Health	Physics	Mathematics	Earth Science	Space Science	

Tree Tag

Students in this class will learn to identify some local trees, and to put their knowledge to the test in a game of tree tag. This class can be adjusted in breadth and difficulty depending on grade and knowledge level of the students.

In this class, students will:

- ✦ Recognize differences between evergreen and deciduous trees
- ✦ Identify major groupings of tree types such as maples and oaks



Geodes

This class is an exciting foray into geology, and can be a great way for students to visualize and connect on a tactile level with scientific principles. Students will learn about the formation of geodes, where they can be found, and have the opportunity to crack open a geode. They will make inferences and analyze what they find.

In this class, students will:

- ✦ Distinguish sedimentary, igneous, and metamorphic rocks
- ✦ Learn how geodes are formed, and understand how mineral and environmental differences can change the formation and appearance of the crystals in geodes








Burma Bridge

This class contains discussion on various types of bridges, why they are used in different environments, and how they are constructed. The students will learn to tie a clove hitch knot and work together to create a Burma suspension bridge between trees. If constructed properly, students may be able to walk on their completed bridge.

In this class, students will:



- ✦ Identify beam, arch, and suspension bridges
- ✦ Learn how to tie a clove hitch knot and obtain practice
- ✦ Communicate with classmates, and work as a team to create a Burma suspension bridge

Humanities	Ecology	Botany	Zoology	Social Studies	Chemistry	Primitive Skills
						
General	Human Health	Physics	Mathematics	Earth Science	Space Science	
