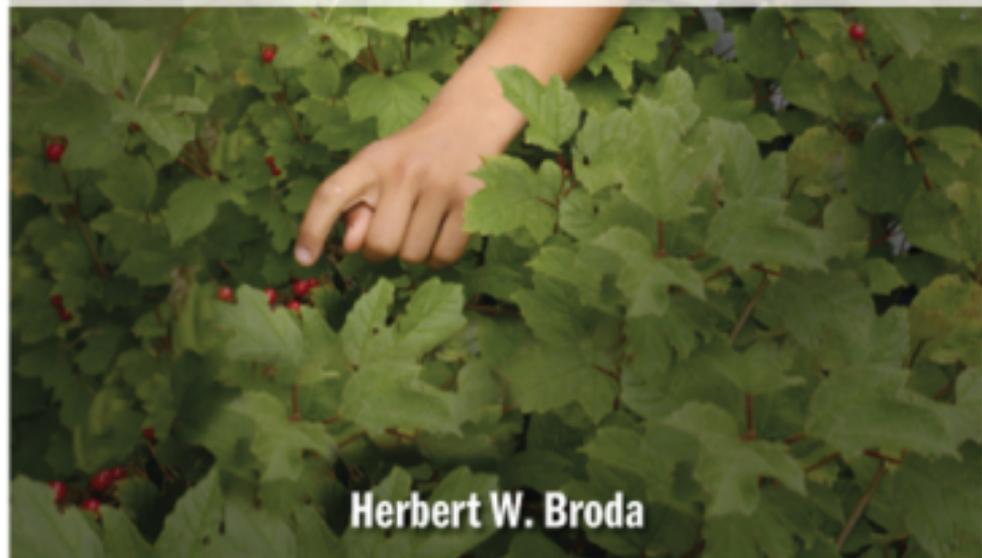




# Schoolyard-Enhanced Learning

Using the Outdoors as an Instructional Tool, K-8



**Herbert W. Broda**

# Chapter 6

## Beyond the Schoolyard



*“I’ve never heard it this quiet before.”*

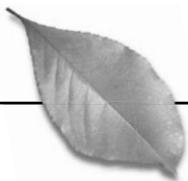
—Ari

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As an eighth grader, Ari participated in an “Outdoor Adventures Day” field trip organized by his science teacher. Students spent the day doing traditional camp activities such as hiking, campfire cooking, and geocaching. Ari made this wonderful reflection while looking for a geocache on top of a rock formation.

It’s thought provoking that the absence of noise would have such an impact on a fourteen-year-old who had been in the outdoors for only a few hours. But it’s certainly understandable. Electronic beeps, ring tones, the incessant babble of the television steadily assault our eardrums. Even the car has become an electronic noise zone with hands-free calling, satellite radio, and on-board DVD systems. The statement “I’ve never heard it this quiet before” is perhaps more of a plea than an observation.

The outdoors is not a quiet place to those who have learned to listen to nature. The gentle sound of a breeze nudging pine branches, the intricate melodies of bird calls, and the soothing white noise of insects buzzing on a summer afternoon affirm that nature is never really still. Unfortunately, those sounds are very foreign to many youth



today. If children are to ever listen in to the natural world, they need to be nurtured through opportunity and example.

I believe that a critical role of schools in children's lives is to include experiences and opportunities that encourage careful listening and provide rich exposure to environments and vibrant locations that reinforce what kids learn in classrooms. In previous chapters we have explored ways to make maximum use of the environment in the schoolyard. If you develop a pattern of frequently using schoolyard-enhanced learning experiences, students become accustomed to the procedures and behavior expectations that you have for outdoor learning.

By utilizing the school grounds regularly as both a venue and source of content, parents, colleagues, and administrators also begin to accept outdoor instruction as a regular part of your teaching repertoire. The need to defend outdoor teaching becomes less and less of a concern, and you'll be able to creatively expand your use of the schoolyard.

The occasional field trip or a more extended outdoor adventure can provide additional learning experiences that would be impossible to do only in a schoolyard. For instance, you can begin to develop the idea of a habitat with examples on the schoolyard, but a trip to a forest or marsh can provide vivid images and experiences that will solidify the concept. When students are already accustomed to outdoor learning activities at school, there is no need to spend time acclimating kids into an outdoor learning routine—they already understand your expectations and have accepted experiential learning as a part of your teaching style.

This chapter provides a variety of possibilities for building upon and extending schoolyard-enhanced learning experiences. We explore topics such as ways to make traditional hikes engaging, how to incorporate GPS technology into both schoolyard and off-site experiences, and techniques for utilizing the outdoors for team-building and problem-solving tasks. A section about resident outdoor education, or school camping, is also included for those who are interested in more comprehensive outdoor experiences for their students.

### **Making the Most of a Hike**

A field trip to a local park or nearby nature preserve can help students explore an accessible outdoor resource in their own community. It may also encourage families to return to the locale for

their own outings. Leading a hike with a group of students presents unique challenges, though.

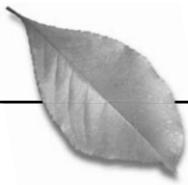
Taking a class away for a field trip of any kind always requires careful advance planning. A trip to a park, however, is more complex than a visit to an indoor location such as a museum or science center. You determine the schedule, route, and learning activities for the visit—a more complex task than simply stepping off the bus and turning the group over to a staff member at a facility. A field trip to a park also adds the need for greater emphasis on classroom management since students may not have clearly visible boundaries and can readily start exploring in all directions.

Field trips that include trail hikes can be great learning experiences. A trek in the forest can provide sights, sounds, and smells that may be new and intriguing to many techno-saturated kids. The trail provides a natural progression for learning activities by providing examples of content previously taught in the classroom. But, a good hike should be much more than a quick dash through the woods. Most problems occur when teachers assume that kids will be focused and fascinated as they walk the trail. Although the teacher may be intrigued by every berry and bug along the way, it's prudent to remember that most students are not yet at that same level of appreciation. Children need focusing activities to keep their minds aligned with the objectives of the hike. Several years of hiking with kids have generated some cautions and procedures that I try to follow faithfully and share with you here.

### *Before the Hike*

#### **Determine the Focus**

The general goal of “enjoying nature” is noble and certainly an overarching purpose, but hikes with kids go better when there is a more specific objective in mind. What are the main concepts that kids should take with them after the hike? Perhaps it's diversity in nature, or habitats, or erosion; or maybe it's an appreciation of shape and texture in the outdoors. The concepts you choose to emphasize will be driven primarily by your curriculum, but also by previous learning activities that you did at school and now want to reinforce on the hike. For example, the mini-habitats you examined on the school grounds provide a great background for exploring more complex habitats in a forest.



In keeping with today's standards-driven environment, there needs to be a curricular linkage to justify school time and money for an off-site experience. Field trips can provide an excellent anticipatory set or "hook" to launch a new unit of study. For example, an ecology unit can repeatedly build on observations and activities that were made during an initial field trip to a nature preserve. Digital pictures of the trip can provide a great library of examples that are very relevant since the students actually were there.

Trips also can work very effectively as capstone or closure experiences to units of study. A Virginia social studies teacher culminates a unit about the Civil War by taking students first to the local historical society and then to a historic cemetery. Students learn from the historians about local people who served in the Civil War. Students see artifacts from these soldiers and often can read excerpts from their diaries. The next stop is the cemetery where students are able to find many of the tombstones of the soldiers they learned about. When possible, tombstone rubbings are carefully made and brought back to the classroom. The locations of the stones are also recorded using GPS devices so that a map can be constructed later. The field trip has a powerful impact as students quickly realize that abstract terms such as *casualties* and *soldiers* refer to real people whose words they have read and whose personal possessions they have seen.

### Scout the Trail in Advance

If you will be the hike leader, it is essential that you walk the entire trail within a week or two of your visit. You need to know what will be around the next bend. That great trail you took a year ago may have suffered considerable storm damage, or vandals may have left some nasty stuff along the way, or some of your favorite points of interest may have been removed or damaged.

### Explain the Trail Rules

This needs to be done first at the school and then repeated again at the trailhead. Like all classroom rules, keep them simple and easy to translate into behavior. Many kids today have had very limited hiking experience and truly do not have a concept of trail etiquette. You may want to stress such things as:

- Stay with the group and don't get ahead of the leader or behind the adult at the end of the line.

- Practice a signal like a raised hand to quickly get the group's attention.
- Point out that other groups may also be in the area, so yelling would be distracting to both people and animals.
- Discuss conservation considerations: Leave wildflowers, plants, and branches where they are (i.e., don't, pick, pull, yank or defoliate!).
- Stay on the trail and try not to disturb the natural setting. Explain to kids that hillsides erode rapidly and vegetation is quickly destroyed if people frequently get off the trail.

### *Early in the Hike*

Many folks view a hike as simply a duty-bound quest to be accomplished: "Let's get from point A to point B and hope that some nature appreciation seeps in." Nature hikes can be so much more than just brisk walks down a path. Take advantage of the fact that student anticipation is at its highest right before the hike begins. Capitalize on children's natural curiosity about new surroundings by providing a little preview of what might be around the bend.

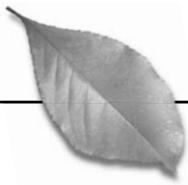
Try to capture student interest even before starting to hike. While still at the trailhead, use something tangible—a natural object or a historical artifact related to the area—that will generate curiosity.

I like to show kids samples of bedstraw, a plant that is sometimes referred to as "nature's Velcro," since it has tiny spines on the leaves and stems that readily stick to clothing. Kids are intrigued as a sprig of the plant is tossed on a shirt and immediately sticks. After everyone has had a chance to try it, I explain that bedstraw was sometimes used years ago to form pillows or sleeping mats since the stems readily stick together and form a resilient pad.

Historical background can also set the stage for a hike. One teacher shows examples of Native American tools and arrowheads that would have been common in her area. A lively discussion can evolve about the types of animals that must have been roaming in the park centuries ago.

### *During the Hike*

The secret to making a hike both engaging and educational is to incorporate a heavy dose of variety. The formula that works well for me is to hike with the group for five to ten minutes then do an activity;



hike for another five to ten minutes; do an activity . . . hike . . . activity. The entire time on the trail alternates between walking and doing brief activities.

For example, some activities described in Chapter 5—“Nature Analogies,” “A Closer Look,” “Nanohike,” and some noninvasive scavenger hunts—are well suited to a trail hike. They all are activities that require minimal materials that can be easily tucked in a day pack. By using a pattern of hike and focus you constantly keep kids alert to their surroundings.

Another effective activity is the drop-off hike. As you walk along, drop off kids one at a time at points of interest that you see along the trail. The stations can be a mix of natural history facts as well as interesting observations. For example, have students pointing out such things as poison ivy, fungi, plants of unusual color or shape, signs of animal activity, an unusual leaf, indications of erosion, or bark textures. The child stands at his spot and points out the interesting item to all who walk by. After all have passed, the child joins the line again and hears the other points of interest. This very simple activity involves everyone and has tremendous appeal since each student serves as the “expert” for a point of interest.

It’s helpful to bring along some simple plant and animal identification guides. A digital camera also is a great way to capture interesting features and critters for future analysis. There always are students who are interested in knowing the name of a particular plant or animal. I feel that students learn greater appreciation for nature when both student and teacher eagerly try to find out the name of something that was found outdoors.

### *After the Hike*

As soon as the hike ends, take some time to debrief the experience. Simple questions can start some good discussions:

What was the most unusual thing we saw?

Did we see anything on the hike that we also see on our school grounds?

Did you see something on the hike that you didn’t expect to see?

These questions really help to emphasize the value of the hiking experience. Students usually mention animals that were spotted along the way, although plants sometimes make the unexpected list. I like to include a time during the hike when students just sit quietly apart

from each other for a few minutes. That's when the bold bird lands on a nearby branch, or a little critter scampers across the trail. Although rarely seen by a group of tromping students, toads and garter snakes cause the greatest excitement as both the most unusual and the most unexpected encounters on a hike here in the North!

It's most effective to debrief the hike while you are still on the site. Impressions are very fresh and enthusiasm is high. The debriefing time brings closure to the hike and helps kids to sort out the experiences that they had.

When back at the school, try to plan something that ties in with the hike experience. It might be drawing, creative writing, or using collected data in a math activity lesson. For example, as the hike begins, give students a sheet with pictures of tree species they will pass on the trail. Students mark the sheet every time they pass one of the trees. Back at the school, they use the data to compute the average number of each species on the trail and draw charts to illustrate the findings. Another way to link the hike with school is to use the GPS devices described in the next section to track the route of the hike and also mark points of interest. This information can then be downloaded back at the school and printed. A writing activity can then be framed around the points of interest that were chosen as waypoints.

## The GPS as a Teaching Tool

Wouldn't it be wonderful to have a technological gizmo that actually encourages kids to go outside, rather than stare passively at a screen? The paradox of nature blending with electronics is not only possible, but also provides various teaching tools. Global Positioning System (GPS) devices are intriguing gadgets that combine the technological feel that kids are so accustomed to, with enriching outdoor experiences (see Figure 6.1).

One unique way to bring data back to the classroom is to take GPS devices along on the field trip. The GPS can help you to re-create your route and points of interest back at the school.



Figure 6.1 GPS devices provide an excellent way to blend technology with the outdoors. The ability to record exact locations of outdoor points of interest makes possible a variety of instructional activities.



GPS units are certainly not toys. The GPS is a sophisticated radio navigation system that allows users to determine accurate location, velocity, and time twenty-four hours a day, anywhere in the world. GPS devices are popping up everywhere, from delivery trucks to cell phones. They are a mainstay for construction and surveying, and increasingly are being found even in the family car.

For many years, GPS units were too expensive for school use. However, increasing demand and advancing technology have made these versatile devices accessible to schools. GPS devices of adequate sophistication for middle and high school use are now available at discount stores for less than 90 dollars. Since classroom GPS projects can be easily designed for groups of two or three students, only seven or eight units would be needed for an average class. Although the cost is still significant, the purchasing of a classroom set may be a project that a parent organization would be willing to fund. One set of units centrally stored in a resource center could readily serve an entire building.

The ability of a GPS device to pinpoint a location (often referred to as a waypoint), and then store the coordinates for future reference, makes it a very useful tool for school projects. Students can locate interesting specimens or artifacts in the schoolyard or community, mark the waypoints with the press of a button, and then reenter the coordinates and return to those exact locations months or even years later. Changes can be analyzed, locations of important examples can be stored for future use, maps can be developed, or presentations prepared.

### *Learning Benefits of GPS Devices*

#### **Outdoor Experiences**

First and foremost, the GPS device takes kids into the outdoors. I strongly believe that if you can just get kids outside, you increase the possibility that they may see, hear, smell, or touch something that will help them to connect with nature.

#### **Hands-On and Technology-Based Learning**

GPS devices include many electronic features that are familiar to kids. The screens, scrolling features, and multifunctional buttons are very familiar to today's techno-savvy kids. Handheld GPS units are intriguing to students since the devices are still not common enough to be found in the average home. I have found that students are captivated with the challenge of exploring yet another electronic gadget.

### **Great Segue into Other Technologies**

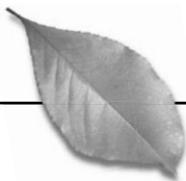
Probably the most powerful pairing is the digital camera with the GPS. There are many software programs available that make it very easy to pair a waypoint with a digital picture. It then is possible to print out maps that show a picture taken at each waypoint. What a great way to document interesting sites and also to present information to a class. The pictures and maps presented can easily be included in PowerPoint presentations.

GPS data can also be uploaded into products such as Google Earth, the powerful, virtual globe program that provides maps of the earth based on satellite and aerial photos. Seeing local data in the context of a much larger scale can open many opportunities for dialogue. Students can use the program's zoom capabilities to see if similar topography is close by, to speculate why certain features or historic structures were placed in specific locations, or to trace the routes of streams and creeks.

Students can do even more in-depth analysis when GPS data is integrated with Geographic Information Systems (GIS) that permit the creation of highly specialized maps by adding and manipulating layers of data. GIS provides the powerful capability to overlay nearly any type of data that has been collected for an area. Students can then ponder what types of relationships exist between their data and its intersection with other GIS data layers that have been imported.

Since effective use of GIS requires an understanding of map terminology, the meaning of data sets, and the abstract concept of data layering, it is most often utilized at the middle and high school levels. However, even some elementary schools are giving GIS a try.

Autumn Phillips describes how second and fourth graders in Hayden, Colorado, marked roadkill locations with GPS devices and then used GIS software to plot the data on a map of U.S. Highway 40 (2003). In the valley where the school is located, there is a stretch of Highway 40 that had been the site of numerous roadkills and automobile accidents as deer and other wildlife crossed the road in search of water and food. Students collected data with the help of community members and examined it using GIS software. Students created a map that ran the length of a hallway and showed the locations of roadkill and natural features in the area. The data provided useful information for the Colorado Division of Wildlife, and most important, helped students see real-life applications of math,



science, and problem-solving. What a great example of place-based education in action!

### Higher-Order Thinking Skills

Students develop the ability to gather and then map data, combined with the capability of returning to exact locations for further analysis. This makes it possible to pose a variety of questions that go beyond the simple recall of facts. The use of GPS devices also models for students how technology can be used to gather the data needed to answer questions and solve problems. Since the GPS device can facilitate the tracking of information over time, robust data sets can be collected that provide opportunities for speculation about changes that emerge. Teacher questions can encourage real data analysis and speculation, rather than merely factual recall:

“From the data, identify a trend.”

“Based on what you found, identify a problem.”

“What might have caused the changes seen over time?”

“What changes might we see the next time we go out?”

### Useful in a Variety of Content Areas

The power of the GPS comes from its capability to mark locations of objects, events, specimens, landmarks—anything that would be useful to recall or revisit. Since information can be downloaded from GPS devices, it is easy to create maps of the area with the points of interest clearly marked. This visual representation of data, coupled with the ability to return to an exact location, can provide the impetus for discussion and analysis in several content areas. Following are some examples.

#### *Science*

Mark and map the location of animal homes on the school site. Have students discuss why there appear to be certain clusterings of animal homes.

Mark and map examples of erosion on the school site or in the community. Use topographic maps to explore possible causes for the erosion.

One school planted a variety of spring flower bulbs in the fall. Students recorded the locations with GPS devices and then downloaded the locations into a map. For each location, students listed the type of

bulb planted and the expected color of the bloom. In the spring, students went to the exact locations and recorded what actually happened. They discussed which species of plants seemed to be the most successful and speculated why some bulbs didn't produce plants.

Another school near a wooded area used GPS devices to record locations of spring wildflowers. Their locations were mapped and photographed so that the next year's class could locate the specimens.

#### *Social Studies*

Mark, map, and photograph historic locations in the community. This is a great activity to do in conjunction with a local historical society. One class actually helped the society prepare a community heritage brochure complete with photos to distribute in the community.

Use the devices to make the abstract concepts of latitude and longitude more concrete. After discussing these terms indoors, have students load specific latitude and longitude coordinates into the GPS and find destinations on the school grounds. By making a grid of the school grounds, you can show students how the GPS is actually showing the intersection of two coordinates.

Mark and map where certain types of stores or services are located in a community and hypothesize why certain patterns have evolved.

#### *Math*

Using the altitude function of the GPS, have students verify the data shown on topographic maps that include the school grounds.

Since GPS devices show distance traveled as well as speed, the devices can provide another way to illustrate measurement concepts.

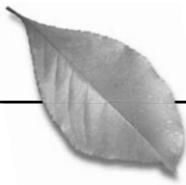
#### *Language Arts*

Build an expository writing activity around the concept of geocaching. First, have

#### **Pizza Geography**

To introduce National Geography Standard III—“How to analyze the spatial organization of people, places, and environments on Earth's surface”—Massachusetts teacher Donna LaRoche contributed an engaging lesson titled the “Geography of Pizza” to the National Geographic lesson plan site (2006). The lesson serves as a great introduction to the concept of points, lines, and areas; I have used it as a segue into the use of the GPS. Instead of marking points by hand, we can do it electronically with a GPS device and also use the tracklog feature to record routings.

The lesson has students locate local pizza shops in a phone book and then plot their locations on a map. They also mark their homes and the school on the same map. Students use the data to draw a route from the school to the nearest pizzeria, as well as routes from their homes to a nearby pizza shop. Students analyze whether alternate routes are feasible and what would be the logical “neighborhood” from which the restaurant would draw customers.



students research the activity. Next, have kids actually put together their own cache for the school grounds. The main writing task is then to develop a brochure describing geocaching, the type of cache that has been established on the school site, and how to use a GPS to find the cache.

My son, Matthew, and his wife, Kristin, have merged poetry and GPS. The activity is based upon the development of two-line poems crafted in a form described by author Sheila Bender:

*At the heart of a poet's ability to evoke engagement with experience is the use of metaphor to make images come alive. With metaphor, the poet compares one thing to something else that is very different. The juxtaposition makes the writer re-experience the original image more fully. In Africa, the people of the Bantu tribe developed an oral tradition in which they did this. They created two-line poems in the rhythm of their work. The first line was an image spoken by one person and the second line an "answering" or corresponding image spoken by a second person. (Bender)*

Matthew gives each pair of students a clipboard, blank paper, pencil, and a GPS device. Students write their names and GPS device number at the top of the paper. The next steps are as follows.

- 1) He asks each pair to go to a location on the school grounds that provides inspiration or interest. The location is marked as a waypoint on the GPS and one student creates the first line of the poem based upon the surroundings (e.g., the smell of a decaying log). The second student then completes the second line. Here are two examples:

*The smell of a decaying log.  
An old book found in a trunk.*

or

*The sound of fall leaves shuffling underfoot.  
Waves crashing on the shore.*

- 2) After completing the second line, the students fold over the top of the paper, covering the completed poem. They then return to the meeting area and trade both the GPS unit and the corresponding paper with another pair.
- 3) The new pair then uses the GPS to locate the inspiration location, examines the area, and completes a new two-line poem. The new poem is also folded under and the pair returns to the meeting area.

- 4) Depending on the number of pairs and available time, this exchange process can continue for several more rounds. Poems and GPS units are traded and the process is repeated with the new poem always folded under and hidden from view.
- 5) After several rounds, everyone returns to the meeting area and poems are returned to the original authors. A variety of activities can follow:
  - Students may share the poems in small groups.
  - Students may show each other the various locations and read the poems there.
  - Waypoints can be uploaded and maps created with a favorite poem being placed at each point on the map.

This activity is very effective with older students. The GPS units add novelty and interest to a language arts activity that combines careful outdoor observation with a good exposure to the power of metaphor.

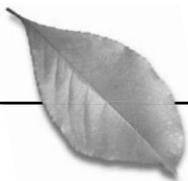
### *Getting Started with the GPS*

Students need to understand that the GPS device helps us to find specific locations on the earth, just like a map helps us to pinpoint a particular place. I always begin by talking about the concept of latitude and longitude, and have students look at two-dimensional examples of grids, both on paper and on the classroom floor, to visualize how the intersection of the lines determines a point. Talking about the point defined by the intersection of two streets can be a good way to make the concept more concrete. An excellent overview of latitude and longitude stated in kid-friendly terms can be found at the Journey North site (<http://www.learner.org/jnorth/tm/LongitudeIntro.html>) referred to in the “Resources” section.

After an explanation of how the GPS uses satellites to determine location, I then distribute the devices while we are still in the classroom. We practice using the various screens and functions of the GPS and then move outside to try a few practice activities that help students become familiar with the devices. The following activities have been my mainstays for helping students to practice and develop confidence using a GPS unit.

#### **GPS Hold 'Em**

After grouping students in pairs, have them form a circle in a large, open area and face outward. Give each pair a playing card and



a numbered GPS device. The pairs walk straight ahead for forty or fifty paces, drop the card, and mark the spot as a waypoint. Everyone returns to the circle and exchanges GPS units along with a description of the playing card that is located at that waypoint. The pairs do a “go to” with the GPS and are off to see if they can find the correct card.

This activity works very well, even with first-time users of GPS equipment. I emphasize to the pairs that they shouldn’t try to completely hide the cards; enough of the card should be showing so that it can be spotted when another pair gets reasonably close.

### **Color Scavenger Hunt**

This activity expands on GPS Hold 'Em by requiring students to locate multiple waypoints in a sequence. Each pair of students has three sheets of paper of a distinctive color. The pairs go out and hide the paper, marking a waypoint each time. The pairs then return to the circle, exchange GPS devices, and set off to find the three locations that have been marked.

### **Treasure Trail Scavenger Hunt**

For this activity, you set up and store a predetermined set of waypoints into the GPS devices. Inexpensive items such as erasers, pencils, or stickers can be placed in plastic containers at the various locations. As students locate each destination, they gather an item from the cache. Another variation is to have an envelope with a question placed at each waypoint. Questions usually refer to the immediate surroundings, such as “What tall object is very close to you?” (flagpole), “What man-made object is helping animals?” (bird feeder). Students record their answers on a tally sheet so that you can confirm successful location of the waypoints.

These three activities are intended to give students an opportunity to experiment with the GPS unit and become familiar with its operation. After doing these activities, students should be ready to use the devices as a part of instructional activities.

When kids become comfortable with a GPS, you can show them that they have been simulating an activity commonly referred to as geocaching—an electronic treasure hunt using GPS devices. Direct them to <http://www.geocaching.com>, a comprehensive website that thoroughly explains this wonderful, family-friendly adventure game that has cache locations worldwide. Almost every North American

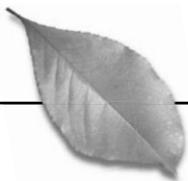
town is within a few miles of a geocache. Geocaching is an amazingly simple, yet highly engaging, activity that gets entire families back into nature and into communication with each other.

Many of the GPS activities described here involve elements of teamwork and group problem-solving. Using the GPS for scavenger hunts or geocaching requires that the group work together to interpret directions, input data, and look carefully for visual clues. These types of

### Practical Tips for Using the GPS in the Classroom

A few thoughts to keep in mind as you consider the GPS as a teaching tool:

- You do not need a GPS unit for each student. Students do just fine working in pairs if you emphasize that they will have to take turns with the devices. Trios will work also, but pairs provide everyone with more individual time to operate the units.
- Be sure to number the units with a permanent marker. It makes it much easier to keep track of the units when they are exchanged in activities.
- You do not need an expensive GPS unit for typical school applications. Most low-end machines will work fine. It's critical, though, that the units have download capability. To maximize the educational value of the GPS, you need to be able to plug the device into your computer so that your data can be used in a variety of applications. Although most units produced today have that capability, it is very helpful if the download cable uses a USB connector into your computer. Non-USB connectors often can't connect to laptops, which requires the purchase of special adaptors. Check out the type of cable and whether it is compatible with the computer you will be using for downloading.
- It's helpful to have mapping software loaded into your computer. Most of the major brand-name mapping programs allow you to download waypoints and tracks from a GPS unit.
- Although not usually necessary, a GPS unit that contains a base map can be useful. The base map enables you to show your waypoints in terms of the roads in your area right on the GPS screen.
- Be sure that all devices are turned off at the end of a session. Most units intentionally do not shut off automatically (you wouldn't want that to happen on the trail!), so batteries can be drained quickly if they are accidentally left on while in storage. Battery replacement is the only real recurring expense with GPS units.
- Stress safety. Emphasize to students that GPS units indicate a route "as the crow flies." In other words, the unit will not warn you that there is a building, large tree, or busy road directly in the path that is indicated. Students need to understand that they may have to deviate from the route indicated on the machine in order to get around an obstacle.



activities use the outdoors as a venue to reinforce group process skills, and fall into a general category often referred to as *initiative tasks*.

### **Initiative Tasks**

Although the term sounds complex, the concept is really quite simple. Initiative tasks are structured activities designed to develop leadership skills, a sense of team/group identity, and group problem-solving skills. On the surface, initiatives simply look like creative games. When done correctly, however, with careful debriefing after the activity, initiatives can produce lasting changes in group dynamics. For that reason, many corporations spend large amounts of money on team-building seminars, which usually are centered around a series of initiative task activities. Initiatives can be equally useful in establishing and maintaining a feeling of unity within a classroom.

The initiative may be as simple as having everyone line up by birthday without talking, or as complex as putting together a structure without knowing what the end product will look like or working together to move your group across a ropes course 40 feet in the air.

There are both low- and high-order initiatives. Low-order tasks use simple equipment and usually keep people on the ground. For example, solving the problem of how to get a group across a given distance using only some boards and tin cans, or having a group hold onto a rope circle and form various shapes while blindfolded would be types of low-order initiatives.

Higher-order initiatives involve elaborate props and equipment, complex procedures, elements of physical challenge, and may even include aerial elements including elevated ropes courses. Examples would be getting a group over a high climbing wall, or moving everyone through a simulated giant rope spiderweb without touching a strand. Higher-order initiatives should only be led by persons who have been thoroughly trained in both equipment and methodology. There is frequently a need for spotters since many high-order initiatives involve physical activity.

There are many low order initiatives that are very appropriate for use on the school grounds. All initiatives, whether high- or low-order, have the leader follow the same general sequence.

### *Present a Problem or Task*

Since the task often involves the movement of an object or the entire group from one place to another, initiatives are frequently done outdoors. The type of problem presented depends on several factors: how well the participants know each other, existing levels of trust and cooperativeness in the group, age and gender mix, physical limitations of participants, and so on.

When using initiative tasks at a school, start with a very simple, low-risk task first. The easy task sets a positive tone and makes everyone feel comfortable. Then move to something a bit more complex.

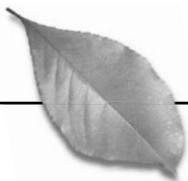
Camp directors Jerry Dunlap and his son, Trevor, stress the concept of progression when using initiative tasks. The Dunlaps emphasize “frontloading”—embedding a heavy dose of positive norms and expectations from the outset. The “no put-downs” rule is emphasized with zero tolerance for unkind remarks.

The initiative tasks they include in their camp programs move from low emotional intensity to higher levels of intensity. For example, a low-intensity task might be an ice breaker activity such as a “Find someone who . . .” scavenger hunt in which kids go around the group seeing who might fit a certain category. There is very little emotional risk-taking involved.

Next, the progression may move to a medium-intensity-level task such as having kids each hold lengths of PVC pipe and pass a marble through all the pipes and move toward an end goal. In this activity, each person feels a responsibility for making the task happen, but if the marble drops, it’s not dramatic nor does it call great attention to any one person.

The Dunlaps then may progress to a high-intensity activity in which the group has to find a way to stand on a low, but small, platform. The emotional risk is elevated since it’s very obvious if someone is not cooperating. In addition, the activity adds the elements of closer physical proximity and agility.

In a school setting, you probably won’t be doing tasks above the medium-intensity level. An activity doesn’t have to be dramatic or physically risky to have an impact. The important thing is to pose a problem that doesn’t have a simple answer and then let kids work it out. What makes an initiative task powerful is the “no-put-downs” atmosphere and the debriefing experience that comes later.



### *Present Relevant Information, Rules, and Safety Considerations*

Safety is of prime concern. Choose activities that fit the age, temperament, and abilities of your students. An active movement-based activity may have worked great with last year's class, but with this year's group, a more subdued construction task with PVC pipes might be more appropriate. Make sure that boundaries are understood and stress the rules that must be followed.

Keep the progression concept in mind also. Find a variety of low-, medium-, and higher-level activities to keep in your files. If you find yourself weighing whether or not an activity might be too risky, don't do it! There are hundreds of other ones out there.

### *Step Back and Allow the Group to Approach the Problem*

Hopefully, there is open discussion. But, regardless, the leader does not interject suggestions or leading questions. In this phase, the leader is just an observer, only answering questions pertaining to interpretations of the rules or guidelines. For teachers, this is a very difficult phase. We are so used to helping, coaxing, and coaching that it really is difficult to just stand back and watch a group struggle with a task.

Competition between groups is usually not encouraged in initiatives. The focus is on the group trying to improve its own time or in some other way competing against itself. Mixing intergroup competition with initiative tasks can muddy the group processes that you are trying to enhance.

When doing initiatives that involve some type of physical activity such as running or balancing, there is always the possibility that a student may feel reluctant to try the activity. Obviously, a reluctant participant should never be coaxed, either verbally or physically, to do an activity. If a positive feeling of trust has been effectively frontloaded, the student may give it a try. Be prepared, though, to give a graceful "out" for the reluctant participant. Ask the individual to help you act as a spotter or to assist you with equipment or another task related to the activity. The Dunlaps emphasize the concept of "challenge by choice," which simply means that an individual takes part in an activity only to the point that he or she feels comfortable.

### *Refocus the Problem when Necessary*

If the group becomes hopelessly stymied, sometimes you'll need to give a hint or suggestion. The hint should be rather vague so that the group still has to wrestle a bit to complete the task.

Even after a lot of sincere effort, some groups may simply not be able to solve the task. Some purists feel that no help should be given to a group—if the group fails, so be it.

Failure to complete a task is really not a “bad” outcome. In the next phase (debriefing), there is an opportunity to analyze why the group was not able to solve the task. Frequently, even greater learning occurs when a group does an in-depth analysis of a failed attempt, rather than always applauding a success.

### *Conclude with a Group Discussion*

The debriefing phase is the most important element of an initiative task. It’s crucial to remember that this reflective phase is what makes the initiative task a learning experience rather than just a game. Watch the clock carefully so that you can provide an adequate amount of time to debrief the task. Time requirements vary based upon the complexity of the activity and the size of the group. I schedule a minimum of fifteen minutes for any initiative, but groups may spend half an hour or more on complex higher-order tasks.

### **Beginning the Debriefing**

To begin a debriefing session, I like to move the group to a comfortable location that is in reasonable proximity to where the task took place. Being able to see the site and equipment can jog memories and elicit more specific responses. If possible, have the group sit in a circle to avoid the “leader-respondent” tone.

Establish basic ground rules for the debriefing:

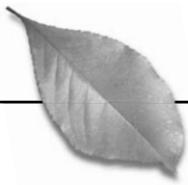
- There can be no put-downs.
- You can pass on any question.
- Use the positive rather than the negative: “It might have helped if . . .” rather than “John didn’t help when he . . .”

### **The Power of Initiative Tasks**

Longtime outdoor educator Jerry Dunlap tells the story of a high school group that was attempting a climbing wall initiative at his camp. The wall was 8 feet high and the objective was to get the entire group over the wall. To accomplish the task, 100 percent cooperation was essential.

As the group began discussing a strategy for solving the task, one teenager adamantly refused to take part. Interestingly, this boy was outgoing, athletic, and strong—certainly much more physically capable of doing the task than several others in the group. As the group began to nag and criticize, Jerry firmly reiterated the “no-put-down” rule.

As the group’s tone changed from belittling to focusing on why the boy was reluctant to climb the wall, he began share a traumatic incident with his peers. As a child, he had been injured in a fall from a hayloft, and had retained a fear of heights ever since. A hush came over the group as he told his story and everyone realized that this macho young athlete was really reflecting the stark reality that we all harbor concealed fears. The dynamic of the group immediately changed from taunting to encouraging. Through gentle affirmation and positive feedback, this teenager was helped by his peers not only to climb a wall, but to overcome a fear that had festered for years.



### Plan Questions Beforehand

Debriefing questions are important and really should be planned in advance. Many debriefing sessions get hopelessly bogged down in one dimension and miss the opportunity for the group to examine a situation from a variety of perspectives. Many books have been written concerning debriefing and reflection. An excellent and concise read is *Lasting Lessons: A Teacher's Guide to Reflecting on Experience* by Clifford E. Knapp.

A great framework for questioning was devised by A. J. A Binker, who developed a category system of six types of questions that can help us look at a problem from many different dimensions. Here are his categories and some of his examples (Paul and Binker 1990). I have added a few comments in italics that relate to initiative tasks.

### Questions of Clarification

Could you give me an example (*of cooperation that took place during the activity*)?

Let me see if I understand you; do you mean \_\_\_\_\_ or \_\_\_\_\_?

### Questions That Probe Assumptions

What are you assuming?

You seem to be assuming (*that the group was not taking the task seriously*). Do I understand you correctly?

### Questions That Probe Reasons and Evidence

What would be an example (*of where a suggestion was not considered*)?

What are your reasons for saying that (*the task was impossible*).

### Questions About Viewpoints and Perspectives

Can/did anyone see this another way?

What is an alternative (*way to solve the task*)?

### Questions That Probe Implications and Consequences

When you say (*that John was the leader*), are you implying (*that no one else was helping*)?

What effect would (*Sarah's idea*) have had?

### Questions About the Questions

Is this question easy or hard to answer? Why?

To answer this question (*Why weren't more people giving suggestions?*), what questions would we have to answer first?

One experiential educator shared with me his favorite debriefing question: “What can you take away from this experience?” That really says it all.

### Additional Resources

The “Resources” section of this book includes websites and an excellent book that provide directions for initiative tasks. Typing *team-building activities* or *trust-building activities* into a search engine yields thousands of sites that provide descriptions of activities and even questions to use in debriefing.

Since the initiative task concept is very broad, it can be used in the classroom, on the school grounds, or off-site. Some of the most powerful initiative task activities take place at camp facilities that can provide the space and apparatus needed to house a permanent setup of equipment and activity stations.

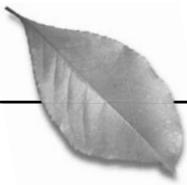
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## Resident Outdoor Education

A recurring theme of this book is that schooling should reinforce classroom learning by including experiences that provide rich exposure to environments and locations that pull at every sense. Probably the greatest change of pace and place occurs when students leave the school grounds and spend several days and nights in a completely different venue. A resident camp experience provides an extraordinary opportunity to build on schoolyard-enhanced learning experiences while immersing students in a setting that provides a rare disconnect from electronic gadgets and climate-controlled environments.

### *The Experience*

On a warm spring evening in early May, our students had been at camp for three days and were taking part in a “sensitivity stroll,” or night hike. My little group of ten sixth graders and I began our hike just



as the sun was setting. The kids were animated as they jostled down the trail enthusiastically talking about the experiences of the day.

We came to a large, grassy area and formed a circle. Everyone faced outward, walked twenty paces straight ahead and then stretched out on the grass and looked up at the sky. By now the first stars were faintly visible and it was unmistakable that darkness was fast approaching. Although we were all relatively close together in the field, each of us seemed oddly alone as we lay on our backs looking up at the emerging stars. After awhile, my high school student counselor and I gathered the group back. By now it was totally dark. Interestingly, the ten kids who just a few minutes ago were romping down the path, were now clustered very close to me. A few even held onto my jacket and wanted to take my hand as we walked. It struck me that many of them had never experienced darkness without a light switch or flashlight close at hand.

To lighten up the tone, I pulled out an old camp standby—wintergreen Lifesavers. When you crunch a wintergreen Lifesaver in the darkness (with your mouth open, of course!), it's possible to see flashes of light. This cool phenomenon immediately brings *oobs* and *ahs*, and everyone wants to give it a try.

After we ran out of Lifesavers, we walked slowly to a pine grove near the edge of the field. Once inside the pines, we sat in a tight circle. Everyone then laid back on the pine needle floor and listened to the rich sounds of the night—a thousand chirps and flutters all underscored by the wonderful sound of a gentle breeze moving through the pine boughs.

As I lit a candle, we all experienced a jarring transition. The darkness now seemed so much deeper and almost ominous as we peered beyond the candle's glow. We passed the candle and all were invited to share something that we had enjoyed during the week at camp. The experience was magical—kids were truly expressing deep thoughts and powerful feelings. They talked about making new friends, seeing their teachers in new ways, and seeing “book learning” literally come to life. Some even quietly shared how they conquered initial feelings of homesickness and now had new confidence in themselves.

After sharing, we blew out the candle and let our eyes adjust as we became one with the darkness once again. We then walked quietly back to the main lodge, bound together by an amazing experience that many will remember into adulthood.

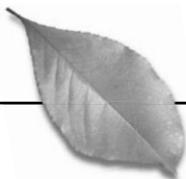
You just can't replicate that experience anywhere else—neither indoors nor on the school grounds. Although some schools substitute multiple day trips to parks for resident camping, it's impossible to duplicate the all-encompassing adventure of a multiple-night retreat. The night hike brought reflections and feelings to the surface. But, it was the multiple days of living at the camp that provided involvement and uninterrupted focus on the natural world, nurturing new awareness and forming indelible experiences in the lives of these children.

The resident camp is a classroom with no walls, the sky for a ceiling, and the natural landscape as an audio-visual tool. Living and learning become beautifully intertwined, and students are engaged in the learning process for all of their waking hours. I continue to be amazed at the former students I meet who immediately recall specific learnings, emotions, and experiences that they had during a resident outdoor-education program.

### *Grade Range and Time of Year*

Resident outdoor education can happen at any grade level. Most programs, however, occur at the middle grades (5–8), with grades five and six being the most popular. Resident experiences vary greatly in length, usually ranging from one to four nights. The two-night, three-day format seems to be most popular and provides adequate time for a group to experience a sense of community. Some schools have had success with overnight programs for students as young as third or fourth grade, although these programs usually span no more than one night.

Districts with several K–6 or K–5 schools may use a camp experience in the spring of the final year at the elementary school to give kids a chance to meet students from the other buildings and smooth the transition to the new school. My own introduction to outdoor education came through this type of multischool camping program. Some of the staff and administration from the receiving school helped with the camp so students had a chance to meet some of their future teachers. It's interesting to note that this program is now into its fourth decade of operation and is still credited as a major factor in smoothly combining classes from four different schools to form a new class at the middle school. Kids are comfortable entering the new school in the fall because they have already met the other students in their class, as well as many of the staff.



The time of year does not seem to be a critical factor. For transitional programs like the one just described, obviously, the spring is an ideal choice. However, for programs that are not intended to transition groups from one school to another, the season of the year is not really important. For every person who argues that fall is the ideal time to do a camp, there is another person who is convinced that spring is the perfect season. A fall camp can be an effective way to capture student interest at the beginning of a school year. A spring camp, however, can build upon a variety of learnings that have taken place during the year. Snow and cold do not have to be deterrents. Although the logistical challenges may be a bit greater, the winter season can provide powerful outdoor learning opportunities that most people have never experienced.

### *Organizing a Resident Program*

Outdoor education in a resident setting provides both breadth and depth for teaching a wide variety of content areas, social issues, and interpersonal skills. A good resident program, however, must be carefully meshed with the school's curriculum and should clearly take advantage of unique features available at the camp.

For example, one school utilizes a camp that has prepared an archeological dig site at the former location of an old farmhouse. Kids learn about archeologists and some of the procedures they use, and then actually go to marked quadrants and begin to sift through the dirt. Although they aren't finding treasure, you might think so from the excited shouts of kids who have just unearthed a piece of pottery or a wheel from a child's toy. Without any prompting, kids speculate about how the objects may have been used, where they came from, and how they reflect the era during which the house stood. Social studies concepts become very real when you are literally sifting through history!

Camps usually have natural features that are not available on the school grounds. Ponds, streams, marshes, and acres of mature woods can provide both venue and content for outdoor teaching. One sixth-grade camp program uses the pond as a backdrop for teaching measurement concepts, data gathering, data interpretation, plant and animal classification, habitat studies and even creative writing (from a frog's point of view!).

Although school camp experiences most frequently take place in fall or late spring, I have seen highly effective programs in every month of the school year. The time of year really doesn't matter. What separates an effective integrated program from a detached "week away from school" is careful planning that clearly aligns camp experiences with grade-level content expectations. A well-constructed resident outdoor education program pays careful attention to three major components: precamp, the on-site experience, and post-camp.

### **Precamp Experience**

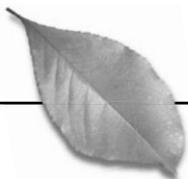
During this time, give students background information related to the activities that they will be doing at camp. If pond and stream life are going to be explored extensively at camp, then precamp should focus on the terminology, concepts, and processes that are related to aquatic study.

It's a waste of time and resources to do at camp what could just as easily be done at school. Unfortunately, I have too often seen teachers struggle to present lectures complete with worksheets and overheads in a camp dining hall when a regular classroom would have been far more appropriate and better equipped.

### **On-Site Experience**

This is the main event. Many resident programs divide the instructional day into three main parts:

- 1) Major instructional groups: These are basic "core classes" that every student takes. They may include traditional nature study topics such as birds or pond life; or, broader topics may be included such as problem solving or habitats in nature.
- 2) Student-choice interest groups: These are usually small-group sessions of ten to fifteen students. The groups meet for a brief time (usually no more than an hour) and students can select the groups that they wish to attend. Topics are extremely varied and offerings may include archery, weaving, pioneer games, geocaching, candle making, and so on. These small interest groups are a great way to involve community members with special hobbies or skills as well as staff members who are not able to take part in the full-day program.
- 3) Evening programs: The classic evening program is the campfire, probably one of the most impressive and memorable parts of



any camp experience. Night hikes (or, as my school called them, “sensitivity strolls”) can also provide insights and impressions about the outdoors at night that are completely foreign to most students. Some schools have used GPS equipment to design whole-camp treasure hunts. Another district works with a local astronomy club to set up telescopes.

### Post-Camp Experience

The post camp experience is often the most neglected aspect of resident outdoor education. When the camp experience is completed, it is important to bring the experience back, full circle, to its relationship to the school-based curriculum. A well-planned post-camp curriculum builds on observations, experiences, and data that were encountered at camp. Writing assignments, math activities, or literature explorations related to camp experiences all help to tie the resident experience to the curriculum. For example, if a school explored an old cemetery near the camp that was the resting place of Civil War veterans, it would be a great post-camp experience to read the novels *Rifles for Watie*, *Shades of Gray*, or another good Civil War title.

### *Two Approaches to Resident Outdoor Education*

School camping takes place in one of two ways—either school facilitated or camp facilitated. In the school-facilitated model, a school staff plans and implements the entire resident-camp experience on its own. Although a camp is rented for the experience, very few, if any, camp staff are utilized in the programming. The school determines its own curriculum, schedule, staffing, student groupings, and logistical needs. The camp usually provides food service, but the school is completely in charge of all other aspects of the camp program.

The school-facilitated model gives the school complete control. The downside, however, is that it takes *huge* amounts of staff time to plan, organize, and finally implement even a relatively brief three-day program. Staff “burnout” can be a real possibility, especially if teachers are on twenty-four-hour duty while at camp.

In a camp-facilitated model, the camp provides trained staff to do much of the instruction and possibly even student overnight supervision. Camps usually provide a list of curriculum options from which the school can choose, and visiting teachers are expected to direct and coordinate some activities during the camp experience.

The camp facilitated model requires far less school time in planning and logistical coordination. Most of the time-consuming details are handled by the camp. The camp staff also knows the land laboratory well and can maximize its usage. Of course, since teachers are not actively involved in planning the program, they may not feel a sense of ownership in the experience and sometimes feel and respond more like visitors than teachers.

### Choosing an Approach

Either a camp- or school-facilitated approach to resident outdoor education can provide a highly effective learning experience. As schools decide which approach to use, several factors need to be weighed.

#### *Commitment to Planning*

The staff desire to develop its own, unique program is the “enthusiasm” factor, which is the most critical element in the list. Having worked with many school-facilitated resident programs, I am convinced that there must be a core group of staff members who truly feel passionate about developing a camp experience for their students. Notice that I said *passionate*—not just *interested*, *willing*, or *intrigued*. Unless there are two or three staff who truly feel moved to develop a program from scratch, it might be best to consider a camp-facilitated model.

#### *Staff Time*

Staff time certainly relates to the program factor just mentioned. The initial planning for a school-facilitated program takes a lot of time—period! Teachers and administrators need to be willing to devote significant hours outside of the regular workday to plan lessons, locate materials, and develop the schedules, forms, and other needed administrative details. Like any new initiative, the first year of a program is the most complex. In subsequent years, there is far less creation of new material and more emphasis upon revision.

#### *Previous Experience*

An extensive background in camping or nature lore is not really that important. Since most resident programs are based at camps with cabins or dormitory-style accommodations, there is little need



for teachers to be wilderness survival experts. More important, staff members should share a genuine appreciation for the outdoors and view nature as an opportunity for enriching instruction. Just as you don't need to be a naturalist to use the schoolyard as a teaching tool, you don't have to know every plant and animal to participate in a resident program.

### *Nearby Camps*

From a practical standpoint, camps within a reasonable driving distance can be a major factor. It's just more convenient to use a facility that is less than an hour's drive away. Transportation costs are less and staff can readily check out a nearby camp in advance and set up materials and equipment. Parents also are often more comfortable sending a child to a nearby facility with a familiar name rather than to an unknown place several hours away.

### *Cost*

Cost is influenced by many factors. Length of stay, of course, is a major cost determiner. The use of options such as ropes courses, or camp-provided overnight cabin supervision also can impact per-student cost. In most cases, a camp-facilitated program that provides instructional staff will cost more than a school-facilitated program of the same number of days. Of course, if staff planning time for a school-facilitated program is factored in and given a dollar value, the difference may not be very great.

### *Volunteers*

For a school-facilitated program, availability of reliable parents or high school counselors is crucial. High school student counselors can be a wonderful addition to a resident program, serving as great role models for young campers, as well as enthusiastic aides to teachers. It is absolutely essential, however, that these counselors be well trained about the nature and needs of the camper age group, as well as their role in the general instructional program. If you are considering a school-facilitated program, check with your high school early in the process to determine if students can be excused to help with the program. Parents can also be a great resource. A willing pool of parent volunteers also can help to locate resources, assemble teaching equipment, as well as share outdoor-related hobbies and vocations in special interest group sessions.

### Leaders

Probably the most important factor in the success of a school camping program is the willingness of someone to take a strong leadership role in the process. Whether the choice is school-facilitated or camp-facilitated camp, there needs to be a key person at the building who is willing to field the questions, do the background research, and, most important, act as a cheerleader for the concept. Most every successful resident camping program that I have seen, whether school- or camp-facilitated, is usually associated with a staff member's name. That person doesn't do it all, but he is definitely the force that motivates others to stay involved.

### Why Bother?

Is it a lot of work to put together a school camping program? Absolutely!

Is it worth the effort? Absolutely!

The residential outdoor experience provides tremendous focus and allure. Living in a completely different environment for a few days, without video or technological distractions, naturally makes experiences more vivid and impressions longer lasting. Unfortunately, many children today simply do not view the outdoors as a leisure time option. In fact, many students are, at first, a bit shocked to find that camp cabins do not have TVs or video games. Very soon, however, students become so immersed in exploring where they are that any longing for video vegetation quickly disappears. The realization that there is life without TV or phones is for many students one of the most profound learning experiences that camp provides.

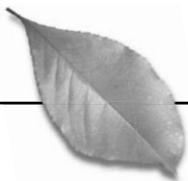
Living together as a group for several days also makes abstract concepts such as consideration, acceptance, and responsibility come alive. The powerful change of pace and place that a resident

### The Opportunity for Unique Experiences

Veteran sixth-grade teacher and avid outdoor educator Sue Cook says that she is more convinced than ever that outdoor learning works. Recalling a resident-camp experience, she tells the story of a night hike that included an "owl prow!" an activity where students have to be perfectly quiet as a leader tries to get owls to respond to simulated calls. At best, it's a tricky activity to pull off. If you are lucky, you may hear a few distant responses. However, since kids have a difficult time staying really quiet, the night hike usually moves on after a few minutes of calling and listening.

On this particular night, however, things were different. A distant owl not only responded, but students heard the calls coming closer. As the amazed sixth graders looked up, the owl flew directly overhead, treating the group to a sight that most humans will never see in the wild. The experience truly defined a sense of wonder for Sue's students. As she puts it, "It's impossible to duplicate that on TV!"

Do these experiences have a long-term impact on kids? Sue tells of a former student, now a park ranger on the East Coast, who regularly sends her a donation of 1,000 dollars per year to subsidize costs for kids who might find it difficult, financially, to take part. Now that's tangible evidence of impact!



program provides frees both learners and teachers to explore, interact, and respond in ways that are not possible in the traditional classroom setting.

The camp experience provides a unique opportunity for students to see teachers differently. The casual dress and tone of the camp environment helps students to see adults as real people rather than just authority figures. Mealtimes, walks to and from field locations, and evening activities provide many opportunities for students to have positive interactions with peers and adults. Casual conversations with a favorite teacher after dinner or the sudden feeling of awe and wonder generated by gazing into a night sky filled with innumerable specks of light are memorable moments. Such moments help young and old alike to focus on who they are and what is really important. Because resident camping is a huge change of pace and place for students, the experiences that occur have powerful and long-lasting impact.

Rick Wormeli, a middle school author, lecturer, and practitioner, eloquently describes the impact that resident camping has had upon him as a teacher:

*These are the times when I feel most alive as a teacher and am able to do what middle school students want most from adults: listen, coach, share challenges, demonstrate and applaud strong character, take them seriously, and embrace their potential. Each time I venture forth, I discover additional proof that learning doesn't have to happen in a classroom. (2001, 152)*

### **In Summary**

I like the expression “prime the pump.” The *American Heritage Dictionary of Idioms* defines it as encouraging the growth or action of something. This is indeed my pump-priming chapter! Although I want to promote the use of the school grounds for teaching, I also want to plant some ideas that will encourage using resources beyond the school. I frequently find that teachers who start taking their classes outdoors regularly are hungry for ways to build on those engaging schoolyard experiences and want to include locales in the community.

This chapter presents quite a mix of ideas! Some, such as GPS activities and initiative tasks, can be done either on the school grounds or off-site. Other topics, including resident outdoor education and hiking strategies, definitely require trips to other locations. My hope

is that one or more of these topics will sound intriguing enough to encourage you to explore the ideas a little further. The “Resources” section at the end of the book contains additional references and information about the topics in this chapter.