



People learn better when they are actively involved in the learning process. Consider that people retain about 10% of what they hear, 30% of what they read, 50 % of what they see, and 90% of what they do.

**Unless our eyes and ears are trained to see,  
Many of the greatest wonders of life go by unnoticed.**

**Activity** – An educational procedure designed to stimulate learning by firsthand experience.

Example: Looking for different species as a treasure hunt as you walk from station to station.

**Assignment** – A specified task.

Example: On a guided tour of the marsh, the group leader gives the students an assignment. She asks them to look for animal tracks left in the dirt. The children are congratulated for their findings, and the tracks found are worked into the narrative of the guided tour.

**Brainstorming** – A group problem-solving technique that involves the spontaneous contribution of ideas from all members of the group.

Example: A group leader is giving a talk to a group on the town of Drawbridge. He asks the group, “If you were living here one hundred years ago, how would you go about your daily life in order to eat, drink, sleep, etc.?”

**Call and response** – A style of singing in which an individual or group responds to or echoes the melody sung by one singer.

Example: A group leader engages the audience during a program on migratory birds by using this classic song, perhaps changing some words to convey a resource protection message:

	<i>The other day</i>	<i>The other day</i>
	<i>I met a bird</i>	<i>I met a bird</i>
	<i>A great big bird</i>	<i>A great big bird</i>
	<i>Away up there</i>	<i>Away up there</i>
All together:	<i>The other day I met a bird, a great big bird away up there.</i>	

Compare and Contrast – An examination of two or more items to establish similarities and dissimilarities.

Example: These two wild rabbits are a lot alike. Both have fuzzy tails and long ears, and they like to live in the same kinds of places. But if you look closely, you'll notice that one of them is a lot skinnier looking with ears straight up, while the other is more round with ears laid back against their body.

Context – Relating the unfamiliar to what is familiar.

Example: De Soto saw (the Mississippi River) in 1542... The date standing by itself means little or nothing to us; but when one groups a few neighboring historical dates and facts around it, he adds perspective and color... for instance, when the Mississippi was first seen by a white man, less than a quarter of a century had elapsed since... the death of Raphael... Catherine de Medici was a child; Elizabeth of England was not yet in her teens... Shakespeare was not yet born...

Mark Twain  
*Life on the Mississippi*

Description – Discourse intended to give a mental image of something experienced.

Example: I have just learned to see praying mantis egg cases. Suddenly I see them everywhere; a tan oval of light catches my eye, or I notice a blob of thickness in a patch of slender weeds. It is over an inch long and shaped like a bell, or like the northern hemisphere of an egg cut through its equator. The full length of one of its long sides is affixed to a twig; the side that catches the light is perfectly flat. It has a dead straw, deadweed color, and a curious brittle texture, hard as varnish, but pitted minutely, like frozen foam.

Annie Dillard  
*Pilgrim at Tinker Creek*

Game – A physical or mental competition conducted according to rules.

Example:

1. Give Me Five: No supplies needed. A basic categories game to play as you walk, you ask the children for five items in a category, relevant to the setting and their age and abilities. For example, "Give me five tree species" – they have to work together to name five. The items don't have to be present, it's just a way of focusing on nature; but if you spot some of them, so much the better. You can make it harder: "Give me five kinds of deciduous trees" or "Give me five kinds of reptiles that live in our state"; or easier: "Give me five animals." This also helps with understanding classification. Pepper the game with surprises like, "Give me five kinds of ice cream," or let others take turns naming the category.

2. **Animals on the Move:** Have the children pretend to be animals while walking from one spot to the next. At the beginning of this game you can select one or two animals and call them out randomly. Children must then act out that animal's behavior for ten to fifteen seconds.

Fox – Grey fox “perfect step,” which means that all four feet move in a single line and that the back feet step in the prints left behind by the front feet. Have the children walk placing one foot in front of another in a straight line.

Rabbit – Hop with feet together.

Hawk – Hold arms out to the side and pretend to soar.

Ant – Crawl along the ground in a straight line.

Geese – Try to walk so all participants are moving in a v-shape.

After introducing each animal and calling out the actions for the children to act out, you should be able to call out the animal's name at any time and the kids should respond.

3. **Animal Antics:** This version allows for more random actions. If you are walking with children who are arguing about who gets to walk at the front of the line, this activity will eliminate the pushing and shoving by rotating the children from the front to the back of the line. Start by telling the children that when the leader makes an animal sound, they must then act out the behavior of that animal for a count of ten while continuing to walk.

Select a child to be the leader. Point out a spot up ahead and tell the child that when the group reaches that point she should make an animal sound. (Why point out a place for the child to make the call? Depending on the child's age, she may make an animal sound immediately upon it becoming her turn and then the group doesn't get to move very far.) When the group hears the animal sound, they then act out the behavior they believe most appropriate. Rotate leaders.

The challenge with this game is encouraging the children to make the sound loud enough for the other children to hear. As the leader, you can help support the child-leader by encouraging them to repeat the sound as they turn to face the other children.

**Imagination** – The act of forming a mental image of something not present to the senses or never before wholly perceived in reality.

Example: We are going to pretend we live on the bottom of an ocean – an ocean of air in which clouds are adrift – just as sponges and coral and spidery crabs inhabit the floor of the ocean water. But it will not be hard to pretend that, for in fact that is just what we do. In relation to the air ocean, we are exactly like the deep-sea fishes, with all the weight of tons of air pressing down upon our bodies.

*Lost Woods: The Discovered Writing of Rachel Carson*

Observation – An act of seeing or sensing through directed careful analytic attention.

Examples:

- Look for any places where bugs or animals could make their homes: spider webs, dead trees, hollow spots in trees, shrubs, holes in the ground, under logs or rocks, etc.
- Periodically stop, and see how many different sounds you can hear: wind in the treetops, birds, insects, traffic, people, animals, etc.
- Look for birds, or for signs of birds, like nests, scat, etc. If you like, you can try to identify a few of the species you see.
- Look for as many examples as you can find of items that could be food for people or animals: leaves, grass, berries, fruit, roots, nuts, other animals, etc.
- Look for examples of animal camouflage. How do the insects and animals you see blend in to their surroundings?
- Make a list of the many different types of insects you find. Make a simple sketch of the ones you can't identify.
- Look for signs that animals have been nearby: tracks, droppings, nuts that are gnawed or half eaten, bark nibbled off trees, holes or nests in trees.
- Take a wind walk: Try to feel which way the wind is blowing, and identify what things move when the wind blows: leaves, grass, flowers, limbs, etc. Notice if there are any signs of wind's effects, like fallen leaves or branches.

Prediction – An act of foretelling on the basis of observation, experience, or scientific reason.

Example: When I passed the graveyard again on 3 August, the fence had been removed by a road crew, and the Silphium cut. It is easy now to predict the future; for a few years my Silphium will try in vain to rise above the mowing machine and then it will die. With it will die the prairie epoch.

Aldo Leopold  
*A Sand County Almanac and Sketches Here and There*

Question – A point of debate or a proposition. Questions can be used to focus attention on something of interest, to make comparisons, to make inferences and explore possible conclusions and implications, or to think of solutions to real-world problems and issues.

Example: Sight: What did you see?  
Smell: What did you smell?  
Hear: What did you hear?  
Taste: What did you taste?  
Feel: What did you feel?

Scavenger Hunt – An activity in which participants are tasked with finding articles which are challenging to locate.

Example: Habitat Bingo.

Sensory Experience – Direct participation by sight, hearing, smell, taste, or touch. People learn better when they are using as many senses as appropriate.

Example: On a guided walk, a leader encourages students to close their eyes and differentiate and describe the feel of different plants, using only their sense of touch.

Show and Tell – Exhibiting an item and providing some information about it.

Example: An interpreter presents a program about early Native American Indians living in the area. In preparation for discussing the material items they used in daily life, she asks each student to discuss an item they find indispensable to contemporary living.

Silence – Forbearance from speech or noise. A pause in speech can reinforce an important point.

Example: A leader tells the story of a soldier's involvement in WWII. After conveying the circumstances of a particularly poignant adventure, the leader states, "The soldier remembered the details of that day for the rest of his life." After which he refrains from speaking again for several long moments.

Story – A fictional narrative shorter than a novel.

Example: In a program about the nature of wilderness, a leader narrates the fable of "The Dog and the Wolf" to introduce the concepts of wilderness and domesticity.

Tools – Instruments, resources and apparatuses that facilitate learning.

Example: An interpreter leading a guided walk through a natural area carries in his backpack a bird, mineral and plant identification books, several pairs of binoculars, and magnifying glasses.