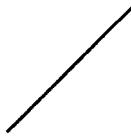


Flow Learning

Joseph Cornell

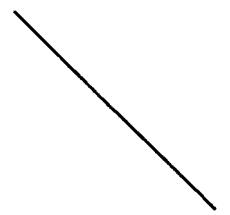
Awake Enthusiasm

(Stage 1)



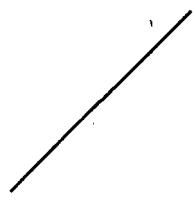
Focus Attention

(Stage 2)



Direct Experience

(Stage 3)



Share Inspiration

(Stage 4)

Notes on Flow Learning – Joseph Cornell

Five tenets of becoming a good nature instructor

Joseph Cornell suggests in his book, *Sharing Nature with Children* that there are five tenets for teachers and guides:

1. Teach less, and share more.
2. Be receptive.
3. Focus the child's attention without delay.
4. Look and experience first; talk later.
5. A sense of joy should permeate the experience.

Explanations of the Flow Learning Model

- 1. Awaken Enthusiasm** - Children learn if the subject matter is meaningful, useful, fun, or in some way engages their emotions. Time spent in creating an atmosphere of curiosity, amusement, or personal interest is invaluable because once students' enthusiasm is engaged, their energy can be focused on the upcoming lesson or experience.
- 2. Focus Attention** - Some students' minds can be compared to a team of wild horses running out of control. Without concentration no true learning can take place. The activities in this stage challenge the players in fun and creative ways. To successfully meet these "challenges" the players have to concentrate on one of their physical senses. In doing so, they become more calm, observant and receptive to their surroundings.
- 3. Direct Experience** - Once students' interest and energy is awakened and focused, the stage is set for deeply experiencing nature. These absorbing, experiential activities have a dramatic impact that involves people directly with nature. These games help us discover a deep, inner sense of belonging and understanding. If people are to develop a love and concern for the earth, they need these direct experiences; otherwise, their knowing remains remote and theoretical and never touches them deeply.
- 4. Share Inspiration** - This stage provides an interesting way for students to reflect together on what they have learned. In our fast-paced world, students and teachers alike often rush from one activity to another. Yet taking the time to reflect upon an experience can strengthen and deepen that experience. It need not take long. It can be as simple as responding to a few questions, writing a journal entry, or drawing a picture. Giving students the opportunity to share their experience increases the learning for the entire class. Sharing also brings everyone together and creates an uplifting atmosphere, making it much easier for the teacher to share inspirational ideas and stories.

Examples of Flow Learning Design

The following learning activities are not designed for a 1-4 step process in the same outdoor ed program but rather are examples of events which illustrate the four steps of the Flow Learning Model.

Learning Activity: Pyramid of Life

A. Awaken Enthusiasm

- B. Balance of nature, food chain, biological magnification
- C. Day/clearing
- D. 6 or more
- E. 7 years and up
- F. Pencils and paper / plant & animal names on cards

This game requires at least six players. Give each child a slip of paper and have him secretly write on it the name of a plant or animal that lives in the area. The players are going to build a pyramid, just as they might do in gym class; but don't tell them this until after you've collected all the slips of paper.

Now the fun begins: "From what source does the earth get its energy? ... From the sun! ... Right. What form of life is the first to make use of that energy? ... Plants! ... Right again. Now we're going to build a pyramid." A few groans may be heard when the "plant children" realize their fate.

"The plants will be on the bottom, because all animals depend on them directly or indirectly for food. All the plants kneel down here on all fours, close together in a line. Now, as I read off the animals from the slips of paper, tell me whether they are plant-eaters or meat-eaters. All the plant-eaters (herbivores) stand in a line behind the plants. All the meat-eaters (carnivores) stand in another line behind the herbivores.

There will nearly always be more children in the upper-level groups than in the supporting plant levels; it's a lot more fun to be a bear or mountain lion than it is to be a dandelion or a muskrat. Humility, alas, seldom stimulates the imagination. With so many tops and so few bottoms, it will be impossible to build a stable pyramid. Some of the predators will just have to forfeit their exalted status. Challenge the children to reconstruct their own pyramid into one that will easily support all its members. (Tell them the bigger children can change to plants if they wish.) Clearly, the higher up in the

food chain, the fewer the number of animals there are. Demonstrate the importance of plants by pretending to pull one of them out of the pyramid.

Another way to play the Pyramid Game is to hand out to each player a card with the name of a plant or animal written on it. It's more fun if you choose interesting and amusing plant and animal names-like baby blue eyes, Virginia spring beauty, common horsetail, and hog-nosed snake. If possible, have all the animals and plants be from the same habitat. Writing down the names on the cards also allows you to fix the ratio of plants, herbivores, and predators. Along with the name of a plant or animal, write on each card a Roman numeral (plants, I; herbivores, II; predators, III; and a large predator, IV.) For a group of twenty-six players a suggested ratio (plants to top predator) is, 14 - 7 - 4 - 1.

Shuffle the cards and pass one card to each player. If any players aren't sure what row to go to, they can look to see what Roman numeral they have. Here's how to play: "I'd like everyone who can make food from the sun, air, water and trace minerals to come forward and kneel in a long line..... Would all the plants please introduce themselves?..... (The plant players respond with their fun plant names like, black-eyed Susan!, ...Northern lady fern!.... touch-me-not!, amidst great laughter.) Now, herbivores, come and stand behind the plants. Tell us who you are..... If you're a predator, make a third row and identify yourselves..... Is there anyone who lives at the very top of the food chain? Yes? Please tell us who you are? ... A bald eagle, then come and be the fourth row. Now that you have everyone in place, pretend that you are going to build a pyramid. (I say only pretend because its a little risky to build one with this many people.)

Explain to the group that there is a model in science that says that every time you go from one level to a higher one (i.e., plants to herbivores), only 1/10 of the biomass is retained. So for example, if you have one thousand pounds of plants, you'd have one hundred pounds of herbivores, ten of predators, and one of the top predator.

Now tell the group: "I've noticed that the plants are having trouble with some insects, so I'm going to spray with a pesticide. These bandannas that I'm placing on your head-one per plant-signify a particle of poison..... Now I'd like the herbivores to reach down and eat the plants. You do this by taking the plant's bandanna and putting it on the top of your head. Keep eating until all the plants are eaten.

"Poisons like herbicides and pesticides are dangerous to animals because when they're digested the poison stays in the animal's tissue. Let's now have the predators eat the herbivores....." (By now the players see where the game is going and are greatly anticipating what will happen when all the bandannas reach the fourth row.) "Now would the bald eagle eat the animals in the third row?" (The players laugh as the bald eagle-player now wears a large pile of bandannas as a hat.) "As we go higher up the food chain, more and more poison concentrates in the tissues of the animals. This process is called biological magnification. Birds like eagles, peregrine falcons, and pelicans and other animals, too, have been greatly harmed by poisons in the environment.....Where do you, as a human, fit into the food chain?" * from Sharing Nature with Children, (c) 1998 by Joseph Cornell

Learning Activity: Sound Map

A. Focus Attention

- B. Auditory awareness, calmness
- C. Day and night/natural area
- D. 1 or more
- E. 5 years and up
- F. Index card and pencil per player

The drumming of a woodpecker. Wind rushing and roaring through the tree tops. The flute-like call of a hermit thrush. The "buzz" from a nearby hummingbird. Water cascading and singing down a steep, rocky incline.

A thrilling chorus of natural sounds delights the players in the Sound Map Game. Children love this activity - they become completely absorbed and sit surprisingly still while making their sound maps.

To play, begin by showing the group a 4 X 6 index card with an X in the center. Tell the players the card is a map, and that the X shows where they're sitting. When they hear a sound, they should make a mark on the card that aptly describes the sound. The mark's location should indicate as accurately as possible the direction and distance of the sound. The marks should be interpretive, not literal; the players don't have to draw pictures of plants and animals, just a few lines indicating wind, or a musical note indicating a songbird. In other words, they should spend little time drawing and most of the time listening.

Tell the players to keep their eyes closed while they listen. Explain that cupping their hands behind their ears provides a reflective surface for catching sounds, creating a shape like the sensitive ears of a fax or kangaroo. To hear sounds behind them, they needn't turn their heads, but just cup their hands in front of their ears.

Select a site where the group is likely to hear a variety of sounds - meadows, streams, and forests are fine. It's important to have everyone find a special "listening place" quickly, so that some aren't walking around while others are already listening. I usually give the group one minute to find a spot and tell them to stay in the same spot until the end of the game. Giving the players enough time to disperse fairly widely will ensure a diversity of sound maps and greater interest in sharing.

How long you should play depends on the group's age, attention span, and how well-supplied the environment is with sounds. A good basic guideline is 10 minutes for adults, 5-10 minutes for children. I like to call the group back together by imitating a natural sound or blowing a crow or duck call. As the players assemble, ask them to share their maps with a partner.

It's sometime hard to find a site that's protected from the sounds of cars and machinery, but these noisy areas are ideal for teaching lessons about noise pollution. Have the children make two sound maps, the first one near a busy street and the second in a quiet, natural spot. After the game, ask them where they felt more comfortable. This is a fine way to build children's conscious appreciation of natural areas.

After the children have drawn their maps and shared them, you can ask questions such as:

- How many different sounds did you hear?
- Which sounds did you like best? Why?
- Which sounds did you like least? Why?
- Which sounds had you never heard before? Do you know what made the sounds?

* from Sharing Nature with Childern II, formerly Sharing the Joy of Nature, (c) 1989 by Joseph Cornell

Learning Activity: Meet a Tree

A. Direct Experience

- B. Empathy, olfactory and tactile awareness
- C. Day / forest
- D. 2 or more
- E. 4 years and up
- F. Blindfolds

This game is for groups of at least two. Pair off. Blindfold your partner and lead him through the forest to any tree that attracts you. (How far will depend on your partner's age and ability to orientate himself. For all but very young children, a distance of 20-30 yards usually isn't too far.)

Help the "blind" child to explore his tree and to feel its uniqueness. I find that specific suggestions are best. For example, if you tell children to "Feel the tree," they won't respond with as much interest as if you say, "Rub your cheek on the bark." Instead of, "Explore your tree," be specific: "Is this tree alive? ... Can you put your arms around it? ... Is the tree older than you are? ... Can you find plants growing on it? ... Animal signs? ... Lichens?"

When your partner is finished exploring, lead him back to where you began, but take an indirect route. Now, remove the blindfold and let the child try to find the tree with his eyes open. Suddenly, as the child searches for his tree, what was a forest becomes a collection of very individual trees.

A tree can be an unforgettable experience in a child's life. Many times children have come back to me a year after we played Meet a Tree, and have literally dragged me out to the forest to say, "See! Here's my tree!"

* from Sharing Nature with Children, (c) 1998 by Joseph Cornell

Learning Activity: Recipe for a Forest

A. Share Inspiration

- B. Aesthetic appreciation, balance of nature
- C. Day / forest
- D. 2 or more
- E. 7 years and up
- F. Pencils and index cards

Give each child an imaginary deed to one square mile of land. On this virgin plot he will be free to create his own dream-forest, complete with as many trees, animals, mountains and rivers as he desires. Let their imaginations run wild. To encourage creativity you can give the children some suggestions:

"To make your forest beautiful and radiant, you might want to add things like waterfalls and windstorms, or perpetual rainbows..."

Have them list the ingredients of their forest, then have them draw a picture of it. End by discussing with them whether their individual forests are able to maintain themselves year after year. For instance, see if they have chosen representatives of the food cycle: plant-eaters, plants, and decomposers (example: ants, mushrooms, bacteria). Don't let them forget subtle factors like soil and climate.

* from Sharing Nature with Children, (c) 1998 by Joseph Cornell