



Ecology/Adaptation Nature Walk

Grade: 3rd – 6th

Setting: Any trail

Outcomes: Enjoyment; Place Connection; Learning (ecosystems)

Theme: Animals and plants survive by adaptations and interactions within an ecosystem.

Description: By engaging the senses and making observations, the group will get to know the local ecosystem.

Recommended Time: 1 to 3 hours

State Standards:

4th Grade Life Science- There is interaction and interdependence between and among living and nonliving components of ecosystems.

4th Grade Life Science- Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

MATERIALS LIST:

- Binoculars
- Bird ID trifolds
- Track ID book
- Hand lenses/bug boxes
- Clipboards
- Recording Sheets
- Pencils
- Shrub Dichotomous Key
- Compass

ENGAGE

1. Introduce the theme.
2. Outline the time and distance of the walk.
3. Describe to them that this is a Natural Areas and it is protected for the animals and the plants so we will leave everything we find. We will take notes of our observations.
4. Have the group stand in a circle and pass the talking stick around.
 - a. Have them introduce themselves.
 - b. Take a guess as to what animals we might see or see clues of or hear.
 - c. Or they can say how plants are different in the winter.
5. Play a sensory activation game as observation will be very useful in exploration!
 - a. Sharp Eyes- Divide group into two groups. Have them face each other about four feet apart. At a signal, each person looks carefully at the player opposite them, noting as much as possible about their appearance. At another signal, both lines turn around, so they face in opposite directions. Each person alters something in their appearance (untie a shoelace, fasten a button, take off a shoe, fold a pant leg up, etc.). At a third signal, the two lines turn and face each other again, and each player tries to spot the changes in the player opposite them.

EXPLORE

Give students time to record observations on their papers. Start by having them record the date, time, and weather (cloud cover, wind strength and direction, temp) in the top corner.



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1. Colors: have students make a T chart. One header is Color and the other is Plant or Animal. Give students the tasks of recording at least four colors and where it appears. By observing this way, students can see that there is a lot of variety of life.
2. Stop and observe the various buds or leaves on different shrubs and trees. Allow students to make observations and to use the dichotomous key to identify the plant. Notice if any sticks are broken off and have been browsed. Ask students why these shrubs look like this? (Deer most likely).
3. Search and record the different types of seeds on plants and grasses.
4. Ask students about insects? Where are they right now? During the walk, have students be ready with bug boxes if you find any. Turn over rocks or logs to look for bugs- be sure to turn the rocks and logs back over to leave it the way you found it!
5. If any birds are spotted, take time to observe. Use the ID guide if appropriate. Ask the following questions:
 - a. Bigger, smaller or about the same size of a robin?
 - b. Is it alone or are there a lot of them?
 - c. What type of habitat are they in? Grass, trees, near water, flying?
6. Stop at any animal signs you find- footprints, scat, bird nests, eaten cones, etc. Record these.

EXPLAIN

Look over all the observations we saw on the hike. Did we observe living and nonliving parts of nature?

Eco means environment. What does system mean? Parts working together. An ecosystem is a combination of all the living organisms and nonliving components we observed. Everything interacts. Ask who can define ecosystem in their own words.

ELABORATE

As a group find two observations that you made today and make a guess how they interact or work together.

- For example, we saw twigs that had been browsed by an animal and we saw some deer tracks. Deer eat the twigs.
- The birds we saw were in the grasses. The grasses have a lot of seeds. The birds maybe eating the seeds.

EVALUATE

Have students share an observation they made today and a wonder they have about the hike either to the group or to a partner.

Ask for a fist to five survey five being the best– (measuring outcomes)

Did they have fun? (Enjoyment)

Do they understand more about the details of this place? (Place Connection)

Do they have a better idea of how an ecosystem has a lot of different interacting parts? (Learning- ecosystems)

If time have students share answers to the questions above.