

BEFORE 2: *A Sand County Almanac* by Aldo Leopold

Background: Aldo Leopold is considered the father of wildlife ecology and the United States' wilderness system. He was a conservationist, forester, philosopher, educator, writer, and outdoor enthusiast. Among his best known ideas is the “land ethic,” which calls for an ethical, caring relationship between people and nature.

VA Standards addressed: English 7.1, 7.4, 7.6. Science LS.6

Instructional Strategy:

1. Students will read one of the excerpts from *A Sand County Almanac*. “Back from the Argentine” or “November”. Instruct them to note any unfamiliar words, figurative language. They should also read to be prepared to discuss the author’s word choice and language, identify the main ideas, and summarize the supporting details.
2. Next, ask students to have a small group discussion: What is the author trying to convey in this passage? How did this passage make you feel? Do you think this was the intention of the author? Why or why not?
3. Science and language arts connections: Students re-read the passage, this time noting any science concepts, skills, and vocabulary found in the passage. In their small groups, they will discuss. To increase engagement with the task, consider making it a competition to identify the most unique science concepts, skills, or vocabulary. Then, transfer their notes to a whiteboard/smartboard or use Post-its to write the:
 - a. Main ideas
 - b. Supporting details
 - c. Scientific concepts, skills, and vocabulary
4. Ask: What did you learn from this passage about ecology and natural systems? Make a food web or diagram explaining what you learned.
5. Extension: Students research another published ecologist, conservationist, etc. and choose a passage to share with the class and explain why they chose that excerpt.

A SAND COUNTY ALMANAC EXCERPTS ALDO LEOPOLD

Back from the Argentine

When dandelions have set the mark of May on Wisconsin pastures, it is time to listen for the final proof of spring. Sit down on a tussock, cock your ears at the sky, dial out the bedlam of meadowlarks and redwings, and soon you may hear it: the flight-song of the upland plover, just now back from the Argentine.

If your eyes are strong, you may search the sky and see him, wings aquiver, circling among the woolly clouds. If your eyes are weak, don't try it; just watch the fence posts. Soon a flash of



silver will tell you on which post the plover has alighted and folded his long wings. Whoever invented the word 'grace' must have seen the wing-folding of the plover. There he sits; his whole being says it's your next move to absent yourself from his domain. The county records may allege that you own this pasture, but the plover airily rules out such trivial legalities. He has just flown 4000 miles to reassert the title he got from the Indians, and until the young plovers are a-wing, this pasture is his, and none may trespass without his protest.

Somewhere nearby, the hen plover is brooding the four large pointed eggs which will shortly hatch four precocial chicks. From the moment their down is dry, they scamper through the grass like mice on stilts, quite able to elude your clumsy efforts to catch them. At thirty days, the chicks are full-grown; no other fowl develops with equal speed. By August they have graduated from *Flying* school, and on cool August nights you can hear their whistled signals as they set wing for the pampas, to prove again the age-old unity of the Americas. Hemisphere solidarity is new among states- men, but not among the feathered navies of the sky.

The upland plover fits easily into the agricultural countryside. He follows the black-and-white buffalo, which now pasture his prairies, and finds them an acceptable substitute for brown ones. He nests in hayfields as well as pastures, but unlike the clumsy pheasant, does not get caught in hay mowers. Well before the hay is ready to cut, the young plovers are a-wing and away. In farm country, the plover has only two real enemies: the gully and the drain- age ditch. Perhaps we shall one day find that these are our enemies, too.

There was a time in the early 1900's when Wisconsin farms nearly lost their immemorial timepiece, when May pastures greened in silence, and August nights brought no whistled reminder of impending fall. Universal gunpowder, plus the lure of plover-on-toast for post-Victorian banquets, had taken too great a toll. The belated protection of the federal migratory bird laws came just in time.

NOVEMBER

November is, for many reasons, the month for the axe. It is warm enough to grind an axe without freezing, but cold enough to fell a tree in comfort. The leaves are off the hardwoods, so that one can see just how the branches intertwine, and what growth occurred last summer. Without this clear view of treetops, one cannot be sure which tree, if any, needs felling for the good of the land. I have read many definitions of what is a conservationist, and written not a few myself, but I suspect that the best one is written not with a pen, but with an axe. It is a matter of what a man thinks about while chopping, or while deciding what to chop. A conservationist is one who is humbly aware that with each stroke he is writing his signature on the face of his land. Signatures of course differ, whether written with axe or pen, and this is as it should be. I find it disconcerting to analyze, *ex post facto*, the reasons behind my own axe-in-hand decisions. I find, first of all, that not all trees are created free and equal. Where a white pine and a red birch are crowding each other, I have an *a priori* bias; I always cut the birch to favor the pine. Why?



Well, first of all, I planted the pine with my shovel, whereas the birch crawled in under the fence and planted itself. My bias is thus to some extent paternal, but this cannot be the whole story, for if the pine were a natural seed-ling like the birch, I would value it even more. So I must dig deeper for the logic, if any, behind my bias.

The birch is an abundant tree in my township and becoming more so, whereas pine is scarce and becoming scarcer; perhaps my bias is for the underdog. But what would I do if my farm were further north, where pine is abundant and red birch is scarce? I confess I don't know.

My farm is here. The pine will live for a century, the birch for half that; do I fear that my signature will fade? My neighbors have planted *no* pines but all have many birches; am I snobbish about having a woodlot of distinction? The pine stays green all winter, the birch punches the clock in October; do I favor the tree that, like myself, braves the winter wind? The pine will shelter a grouse but the birch will feed him; do I consider bed more important than board? The pine will ultimately bring ten dollars a thousand, the birch two dollars; have I an eye on the bank? All of these possible reasons for my bias seem to carry some weight, but none of them carries very much.

So I try again, and here perhaps is something; under this pine will ultimately grow a trailing arbutus, an Indian pipe, a pyrola, or a twin flower, whereas under the birch a bottle gentian is about the best to be hoped for. In this pine a Pileated woodpecker will ultimately chisel out a nest; in the birch a hairy will have to suffice. In this pine the wind will sing for me in April, at which time the birch is only rattling naked twigs. These possible reasons for my bias carry weight, but why? Does the pine stimulate my imagination and my hopes more deeply than the birch does? If so, is the difference in the trees, or in me? The only conclusion I have ever reached is that I love all trees, but I am in love with pines. As I said, November is the month for the axe, and, as in other love affairs, there is skill in the exercise of bias. If the birch stands south of the pine, and is taller, it will shade the pine's leader in the spring, and thus discourage the pine weevil from laying her eggs there. Birch competition is a minor affliction compared with this weevil, whose progeny kill the pine's leader and thus deform the tree. It is interesting to meditate that this insect's preference for squatting in the sun determines not only her own continuity as a species, but also the future figure of my pine, and my own success as a wielder of axe and shovel.

Again, if a droughty summer follows my removal of the birch's shade, the hotter soil may offset the lesser competition for water, and my pine be none the better for my bias.

Lastly, if the birch's limbs rub the pine's terminal buds during a wind, the pine will surely be deformed, and the birch must either be removed regardless of other considerations, or else it must be pruned of limbs each winter to a height greater than the pine's prospective summer growth. Such are the pros and cons the wielder of an axe must foresee, compare, and decide upon with the calm assurance that his bias will, on the average, prove to be something more than good intentions. The wielder of an axe has as many biases as there are species of trees on his farm. In the course of the years he imputes to each species, from his responses to their



beauty or utility, and their responses to his labors for or against them, a series of attributes that constitute a character. I am amazed to learn what diverse characters different men impute to one and the same tree.

