

**LESSON: Prairie Birthdays****GRADE: 5th****TIME: 45 min.****SUMMARY:**

Students listen to an excerpt called “Prairie Birthdays” from Aldo Leopold’s book *A Sand County Almanac*. Based on their prior knowledge about plants, students generate questions and design journal entries to use for recording prairie birthdays. Students head into the field to search for answers about blooming prairie plants and choose one plant to sketch and describe in honor of its birthday. Students should make notes about the parts of a plant, including careful details about the flowers and its parts and purpose. This lesson concludes with the students sharing their findings and discussing the importance of tracking and celebrating the life of prairie plants.

OBJECTIVES: Iowa Core**Science****Earth & Human Activity**

- **5-ESS3-1** Obtain and combine information about ways individual communities use science ideas to protect the Earth’s resources and environment.

Literacy**Writing**

- **W.5.1** Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
- **W.5.4** Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.



Speaking and Listening

- **SL.5.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.
- **SL.5.4** Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.

Social Studies

Behavioral Science

- **SS.3-5.BS.3** Understand how personality and socialization impact the individual.
 - Understand that human beings have different interests, motivations, skills, and talents.

PRESENTATION:

Introduce students to Aldo Leopold by telling them about his life (see background information). Explain that Aldo Leopold wrote a book that changed how people thought of land and the way people should manage it. Tell them the title of the book was called “A Sand County Almanac”. Show students the book and explain how he organized the book by seasons. Essentially Aldo Leopold’s book is a nature journal and in it, he coined the term, “prairie birthdays” . Tell the kids they will go outside to explore this idea of a prairie having a birthday.

MATERIALS & RESOURCES:

- *A Sand County Almanac* by Aldo Leopold
- Blank paper or nature journals
- Pencils
- White board
- Dry erase marker



DIRECTIONS:

1. Explain to students that today they are going to be learning about Aldo Leopold and his celebration of “Prairie Birthdays.” To gauge students’ background knowledge, ask students if they know anything about Aldo Leopold?
2. Ask students to open their nature journals. Tell them to listen to a passage about “prairie birthdays” from the book and try to write down what they think Mr. Leopold meant.

Prairie Birthdays – Aldo Leopold

“During every week from April to September there are, on the average, ten wild plants coming into first bloom. In June as many as a dozen species may burst their buds on a single day. No man can heed all of these anniversaries; no man can ignore all of them. He who steps unseeing on May dandelions may be hauled up short by August ragweed pollen; he who ignores the ruddy haze of April elms may skid his car on the fallen corollas of June catalpas. Tell me of what plant-birthday a man takes notice, and I shall tell you a good deal about his vocation, his hobbies, his hay fever, & the general level of his ecological education. Every July I watch eagerly a certain country graveyard that I pass in driving to and from my farm. It is time for a prairie birthday, and in one corner of this graveyard lives a surviving celebrant of that once important event.”

3. Explain that today they will be going outside to look for “prairie birthdays”, or plants that just got their first bloom of the year.
4. Have students open up their nature journal and title their journal entry “Prairie Birthdays.” Split students up into small groups with an adult chaperon. Pass out colored pencils and a clipboard to each student.
5. Before going outdoors, remind students what it means to be a naturalist- calm and quiet, asking questions, having fun, sharing discoveries, being happy outside. Once outside, have students split off into small groups and journal and search for celebrations. Students may draw and/or write about their celebrations.



6. After about 10 minutes of searching for prairie birthdays, call the students back inside.
7. When inside, have students share the prairie birthdays they found and record them on the board.
8. After some students have shared their celebrations, end with a rhetorical question, “Could you find a prairie birthday outside every day this spring and summer?”

BACKGROUND INFORMATION: (adapted from Aldo Leopold Foundation):

Considered by many as the father of wildlife management and of the United States’ wilderness system, Aldo Leopold was a conservationist, forester, philosopher, educator, writer, and outdoor enthusiast.

Born in 1887 and raised in Burlington, Iowa, Aldo Leopold developed an interest in the natural world at an early age, spending hours observing, journaling, and sketching his surroundings. Graduating from the Yale Forest School in 1909, he eagerly pursued a career with the newly established U.S. Forest Service in Arizona and New Mexico. By the age of 24, he had been promoted to the post of Supervisor for the Carson National Forest in New Mexico. In 1922, he was instrumental in developing the proposal to manage the Gila National Forest as a wilderness area, which became the first such official designation in 1924.

Following a transfer to Madison, Wisconsin in 1924, Leopold continued his investigations into ecology and the philosophy of conservation, and in 1933 published the first textbook in the field of wildlife management. Later that year he accepted a new chair in game management – a first for the University of Wisconsin and the nation.

In 1935, he and his family initiated their own ecological restoration experiment on a worn-out farm along the Wisconsin River outside of Baraboo, Wisconsin. Planting thousands of pine trees, restoring prairies, and documenting the ensuing changes in the flora and fauna further informed and inspired Leopold.

A prolific writer, authoring articles for professional journals and popular magazines, Leopold conceived of a book geared for general audiences examining humanity’s relationship to the natural world. Unfortunately, just one week after receiving word that his manuscript would be published, Leopold experienced a heart attack and died on April 21, 1948 while fighting a neighbor’s grass fire that escaped and threatened the Leopold farm and surrounding properties. A little more



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Prairie Birthdays – Science, Literacy, Social Studies

This lesson is a part of Project Bluestem at Neal Smith National Wildlife Refuge

than a year after his death Leopold’s collection of essays, *A Sand County Almanac*, was published. With over two million copies sold, it is one of the most respected books about the environment ever published, and Leopold has come to be regarded by many as the most influential conservation thinker of the twentieth century. Leopold’s legacy continues to inform and inspire us to see the natural world “as a community to which we belong.” Students will use Leopold’s concept of “Prairie Birthdays” to study the outdoors and think in terms of phenology, “a segment of ecology focusing on the study of periodic plant and animal life-cycle events that are influenced by climate and seasonal change in the environment.” From 1935-1948 Aldo Leopold and his family kept records of the timing of seasonal events in Madison and in the vicinity of the Shack. They collected information on hundreds of nature-related phenomena, such as the blooming of plants and the arrivals and departures of migratory birds. Based in part on these observations, Aldo Leopold published an important paper on how phenological data can be used in ecology. As Aldo Leopold once said “Keeping records enhances the pleasure of the search, and the chance of finding order and meaning in these events.”