
Humans and Fire

Adapted for High School



Purpose:

- This activity introduces students to the ways humans in the Pacific Northwest have used fire over time, the benefits and consequences their use of fire has had on the environment and their attitudes towards fire.

Objectives:

Students will:

- Identify, compare, and contrast how the Native Americans and European Settlers used fire.
- Describe the ecological benefits and consequences to using fire.
- Decide how humans today should use and respond to fire.

Materials:

- **Urban-Wildlife Interface Poster** (rolled up in kit bin)
- **“Using Flames”** article by Jon Darling (in teacher binder)
- **“Using Flames Post-1800”** article by Julia Janson (in teacher binder)
- Library or Computer Research Resources (not provided)
- Pencil and Paper (not provided)

Time Required: 45-60 minutes

Appropriate grades: 9-12

NGSS and Common Core Standards:

HS-LS2-7 Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.

HS-LS4-5 Evaluate the evidence supporting claims that changes in the environmental conditions may result in 1) the increase in the number of individuals of some species 2) the emergence of new species over time, and 3) the extinction of other species.

HS-ESS3-1 Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.

HS.48 Analyze how humans have used technology to modify the physical environment (e.g., dams, tractor, housing types, and transportation systems).

9-10.RH.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.

11-12.WHST.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.



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Activity:

Introduction	Ask student how and when they use fire in their everyday lives. Show them the Urban-Wildlife Interface poster. Ask them to brainstorm what the Urban-Wildlife Interface is trying to convey and what it is used for?
Body	Divide the class in half. Assign one half the “Using Flames” article to read and the other half the “Using Flames Post-1800” article to read. Instruct students as they read to identify and write down how the people in their assigned articles used fire and the affects their use of fire had on the environment. When they have finished have them do a think-pair-share with students who read the opposite article. Have them discuss, compare, and contrast the use of fire and effects on the environment between the two articles. Using library or internet sources have students research how humans use fire today and how their use of fire has affected the environment.
Closure	As a class, decide how humans today can use fire to maintain a healthy ecosystem: <ul style="list-style-type: none">● How can humans use fire to help the environment?● How can humans use fire to harm the environment?● How can humans prevent forest fires?

Modifications

- To save time you could have students do the research component of the activity for homework.
- For TAG learners you could have them research fire management plans and then have them propose solutions to handling forest fires properly.

