

## Web Components – LEAF Wildland Fire Supplement

### 9-12<sup>th</sup> Grade Lesson Extension – Webquests for 4 topic areas

- **Topic 1 – Causes of Wildland Fire in Wisconsin**

- Text – For wildfires to occur, a source of ignition is needed. In Wisconsin, human activities cause the majority of wildfire ignitions. On average, 97% of fires each year in Wisconsin are caused by humans. Fire ignitions are related to factors associated with human populations. Outdoor burning, sparks from railroads, machinery, and many individual and group activities that occur in rural, forested or grassland areas can cause accidental wildfires. Often these activities involve fireworks, campfires, off-road vehicles, and use of gas-powered tools like lawnmowers. In some instances, wildfires are caused by natural sources like lightning and microbial activity.

Use the following links to investigate the causes of wildland fire in Wisconsin.

- [https://apps.npr.org/us-wildfires-impact-environment-climate-change/?utm\\_source=npr\\_newsletter&utm\\_medium=email&utm\\_content=20210819&utm\\_term=5677484&utm\\_campaign=best-of-npr&utm\\_id=13360717&orgid=366&utm\\_att1=](https://apps.npr.org/us-wildfires-impact-environment-climate-change/?utm_source=npr_newsletter&utm_medium=email&utm_content=20210819&utm_term=5677484&utm_campaign=best-of-npr&utm_id=13360717&orgid=366&utm_att1=) - United States of Wildfire; NPR
- <https://dnr.wisconsin.gov/topic/forestfire/causes> - WDNR-Division of Forestry; Wildfire Causes
- <https://dnr.wisconsin.gov/topic/ForestFire> - WDNR-Division of Forestry; Fire Management
- <https://dnr.wisconsin.gov/topic/forestfire/permits> - WDNR-Division of Forestry; Wisconsin Burning Permits
- <https://dnr.wisconsin.gov/topic/forestfire/wisconsinfires> - WDNR-Division of Forestry; Major Fires in Wisconsin History & Wisconsin Fire Timeline
- <https://dnr.wisconsin.gov/topic/forestfire/seasonaltrends> - WDNR-Division of Forestry; Risk of Wildfire by Season
- <https://dnr.wisconsin.gov/topic/forestfire/fireManagementDashboards> - WDNR-Fire Management Dashboards
- <https://www.nps.gov/subjects/fire/indigenous-fire-practices-shape-our-land.htm> - Indigenous Fire Practices Shape our Land (NPS)
- <https://www.fs.usda.gov/features/tribal-and-indigenous-heritage> - Tribal and Indigenous Fire Tradition (USDA, US Forest Service)
- <https://www.srs.fs.usda.gov/products/marketing/cards/fs-1035.pdf> - US Forest Resource Facts and Historical Trends Brochure (updated 2015) USDA
- [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fsbdev3\\_000384.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsbdev3_000384.pdf) - Wildland Fire: An American Legacy (USDA, Summer 2000)
- [www.fsu.edu/~imsp/burn\\_issue2\\_06/newsplash.htm](http://www.fsu.edu/~imsp/burn_issue2_06/newsplash.htm) - Burning Issues - An interactive media program for middle and high-school students to explore the occurrence of wildland fire.

- **Topic 2 – The Wildland-Urban Interface**

- Text – Over the last few decades more and more people have abandoned city and suburban living for a more rural setting. In Wisconsin, the new rural houses serve as permanent or seasonal homes and are often found in forested areas. Unfortunately, not everyone adapts to the fire danger that exists in wildland areas. Today, not only do firefighters have to deal with the wildland fuels, but the structures that are mixed in with them as well. In the fire service, this has come to be known as the Wildland-Urban Interface (WUI) and it is one of the biggest challenges to wildland and structural fire agencies. The simple fact is that in the event of a large fire there will not be enough resources to protect every home.

Use the following links to investigate the causes and consequences of the wildland urban interface.

- [https://apps.npr.org/us-wildfires-impact-environment-climate-change/?utm\\_source=npr\\_newsletter&utm\\_medium=email&utm\\_content=20210819&utm\\_term=5677484&utm\\_campaign=best-of-npr&utm\\_id=13360717&orgid=366&utm\\_att1=](https://apps.npr.org/us-wildfires-impact-environment-climate-change/?utm_source=npr_newsletter&utm_medium=email&utm_content=20210819&utm_term=5677484&utm_campaign=best-of-npr&utm_id=13360717&orgid=366&utm_att1=)

[77484&utm\\_campaign=best-of-npr&utm\\_id=13360717&orgid=366&utm\\_att1=](https://www.npr.org/2021/08/19/77484&utm_campaign=best-of-npr&utm_id=13360717&orgid=366&utm_att1=) - United States of Wildfire; NPR

- [http://silvis.forest.wisc.edu/projects/WUI\\_Main.asp](http://silvis.forest.wisc.edu/projects/WUI_Main.asp) - The Wildland-Urban Interface, SILVIS Lab.
- <https://wildfirerisk.org/> - Wildfire Risk to Communities (USDA, US Forest Service)
- <https://dnr.wisconsin.gov/topic/forestfire/preparing> - WIDNR-Division of Forestry; Preparing Your Property
- <https://dnr.wisconsin.gov/topic/forestfire/planning> - WIDNR-Division of Forestry; Planning for Wildfires
- <https://dnr.wisconsin.gov/topic/forestfire/seasonaltrends> - WIDNR-Division of Forestry; Risk of Wildfire by Season
- <https://www.usfa.fema.gov/wui/> - U.S. Fire Administration; Wildfire and the Wildland Urban Interface (WUI)
- [www.firewise.org](http://www.firewise.org) - Firewise Communities

- **Topic 3 – Prescribed Fire**

- Text – Controlled fire is one of the most effective management tools that land managers have to manipulate vegetation. Fire can be used to create and maintain animal habitat and reduce the risk of wildfire from an over-abundance of fuels. Prescribed fire is essential to the health of many Wisconsin ecosystems. Aggressive fire suppression policies have protected property and investments and made much of Wisconsin's landscape safe for homes and businesses, but this has come at a cost to native, fire-dependant ecosystems. In Wisconsin, an estimated 12 to 22 thousand acres are purposefully burned using prescribed fire each year. By controlling the timing, frequency, and intensity of fire, fire managers have shown that they can create and sustain fire-dependant ecosystems and reduce the risk of future catastrophic fires.
- Use the following links to investigate the use prescribed fire.
  - [https://apps.npr.org/us-wildfires-impact-environment-climate-change/?utm\\_source=npr\\_newsletter&utm\\_medium=email&utm\\_content=20210819&utm\\_term=5677484&utm\\_campaign=best-of-npr&utm\\_id=13360717&orgid=366&utm\\_att1=](https://apps.npr.org/us-wildfires-impact-environment-climate-change/?utm_source=npr_newsletter&utm_medium=email&utm_content=20210819&utm_term=5677484&utm_campaign=best-of-npr&utm_id=13360717&orgid=366&utm_att1=) - United States of Wildfire; NPR
  - <https://dnr.wisconsin.gov/topic/forestfire/prescribedfire> - WIDNR-Division of Forestry; Prescribed Fire
  - <https://dnr.wisconsin.gov/wnrmag/2020/Spring/GoodFire> - Wisconsin Natural Resources Magazine, Spring 2022
  - <https://www.fs.usda.gov/managing-land/prescribed-fire> - US Forest Service Prescribed Fire
  - <https://www.nature.org/en-us/about-us/where-we-work/united-states/wisconsin/stories-in-wisconsin/restoring-fire-to-native-landscapes/> - Restoring Fire to Wisconsin's Native Landscapes (The Nature Conservancy)
  - <https://dnr.wisconsin.gov/topic/forestfire/fireManagementDashboards> - WIDNR-Fire Management Dashboards

- **Topic 4 – Protecting Property from Wildfire**

- Protecting your home from wildfire involves satisfying three main conditions that help your property be compatible with the surrounding land: 1) Access - would fire fighters be able to get to your home if there were a fire in the area? 2) The surrounding vegetation - how easily could a fire spread from the adjacent vegetation to your home? 3) The structure - how flammable is your home?

Use the following links to investigate 'firewise' practices.

- [https://apps.npr.org/us-wildfires-impact-environment-climate-change/?utm\\_source=npr\\_newsletter&utm\\_medium=email&utm\\_content=20210819&utm\\_term=5677484&utm\\_campaign=best-of-npr&utm\\_id=13360717&orgid=366&utm\\_att1=](https://apps.npr.org/us-wildfires-impact-environment-climate-change/?utm_source=npr_newsletter&utm_medium=email&utm_content=20210819&utm_term=5677484&utm_campaign=best-of-npr&utm_id=13360717&orgid=366&utm_att1=) - United States of Wildfire; NPR

- <https://dnr.wisconsin.gov/topic/forestfire/preparing> - WIDNR-Division of Forestry; Preparing Your Property
- <https://dnr.wisconsin.gov/topic/forestfire/planning> - WIDNR-Division of Forestry; Planning for Wildfires
- [www.firewise.org](http://www.firewise.org) – Firewise Communities
- <https://wildfirerisk.org/> - Wildfire Risk to Communities (USDA, US Forest Service)
- <https://www.usfa.fema.gov/wui/> - U.S. Fire Administration; Wildfire and the Wildland Urban Interface (WUI)
- <https://dnr.wisconsin.gov/topic/forestfire/weather> - WIDNR-Division of Forestry; Fire and Fuels Intelligence
- <https://www.weather.gov/grb/fire> - National Weather Service Fire Weather Report
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