

The Nature of Wildfires

Explore Environments—Earth



RESPOND to the idea that “controlled burns” are small, monitored, and closely managed fires that can help eliminate excessive amounts of dead wood debris and reduce the risk of larger fires. When there are thick layers of brush, fires consume that fuel and quickly become large and difficult to control. Having small, frequent controlled fires helps remove dead plants which provides space for new growth and access to sunlight that enables new foliage to thrive.

The root systems of new plant growth help prevent landslides by binding soil and slowing rain water runoff. When this cycle of regrowth and removal of dead plants doesn't occur naturally or in controlled burns, the risk of huge wildfires that quickly grow out of control increases.



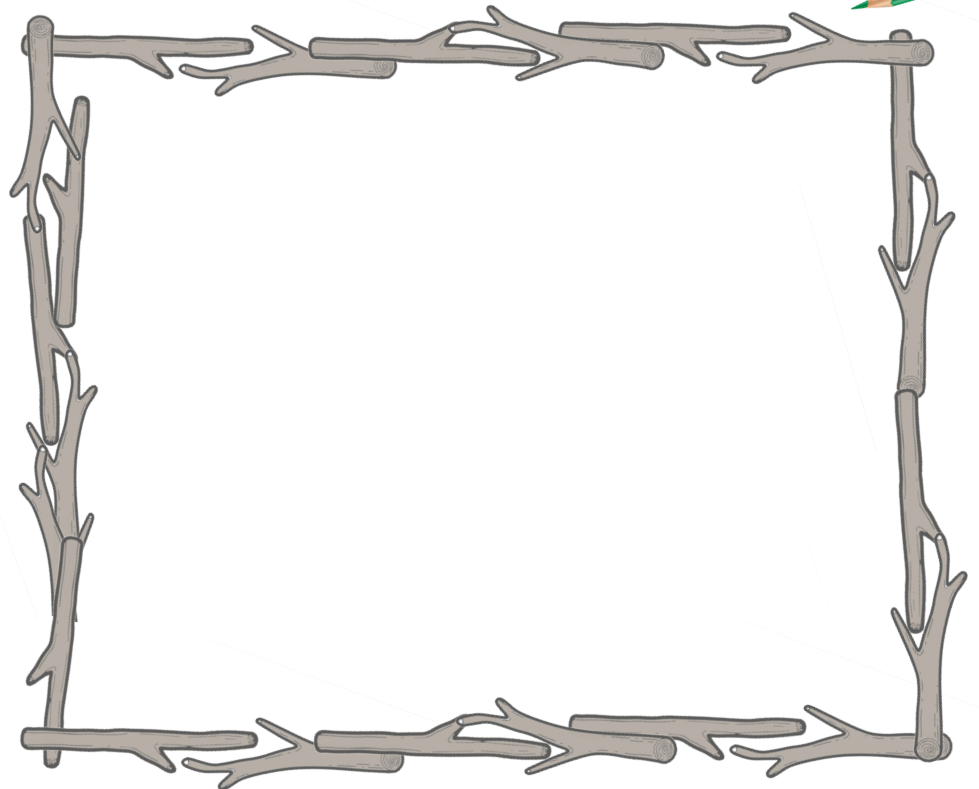
Henry P.



CONNECT the lifecycle of pyrophytes—plants that have adapted to fire-prone habitats—with the science that makes them well suited to the areas where they thrive. Study how in California and other US regions giant sequoias, lodgepole pines, Jack pine, fire poppy, and other plant species that are indigenous to their region (including the Australian Banksia that grow in that area) are able to restore plant growth after a fire. Or you could research why firefighters often advocate for controlled burns to reduce the accumulation of dead brush, which can fuel a fire.



CREATE a sketch that shows how a pyrophyte's seed pods or cones are sealed with a resin that melts during a fire, causing them to release their seeds. Or draw how the seed germination of some pyrophytes is triggered by fire or smoke. Or perhaps you might sketch two areas, one that has new growth where a small, contained fire has cleared away dead brush and a second sketch of an area that is cluttered with thick layers of dead wood—fuel that could feed a wildfire for a long period of time and cause fire to spread quickly through areas of heavy debris.



PRESENT your art and explain what you learned about the difference between small, controlled fires that help clear dead wood and establish new plant growth and large wildfires that have a dense supply of dead wood fuel and quickly grow out of control.



Learning

Thinking Sheet

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