

Figure 3. The relationship between the amount of heat, ignition time, and distance from the flame.

The scientist concluded that people who own houses should take responsibility for making their houses safe from wildfires.



Reflection Section

- Do you think that people should take responsibility for making their houses safe from wildfires? Why or why not?
- Based on this research, how could people make their houses safer from wildfires?



Discovery FACTivity

The problem you will solve with this FACTivity is: What are the potential wildfire problems with a particular home's *landscape plan*? How can you change the landscape plan to make the home safer from wildfires? The method you will use to solve this problem is: Look at the landscape plan on the next page. This plan is drawn from a bird's eye view. Using a ruler, you will need to determine which trees and other vegetation are too close to the house to protect it from wildfires. You can determine this distance from reading the "Findings" section of the article above. The symbols for the house, trees, shrubs, and the driveway are shown. Then, get a blank piece of paper, 8 inches X 11 inches or larger. Using your

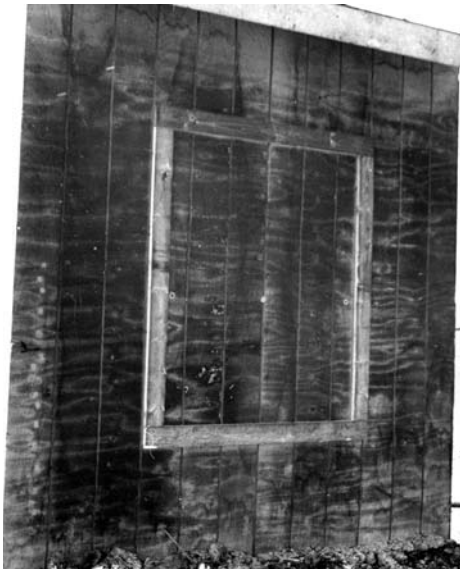


Figure 4. When flames did not make contact, the wall built 10 meters away was scorched but did not ignite.

a distance of 10 meters. Why do you think the scientist used a range of 10 to 40 meters when reporting his results?

- If you were the scientist, what would you recommend as a result of this research?

Implications

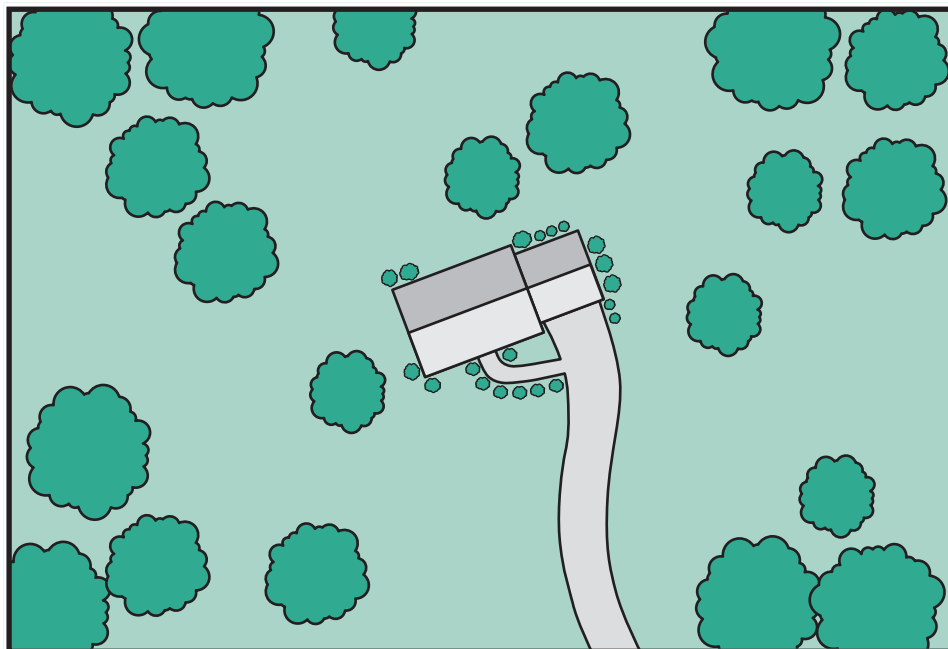
The scientist reported that the condition of the house and its surroundings, within 40 meters, are responsible for the house catching fire during intense wildfires. The area of land around a house is usually owned by the homeowner.



Figure 5. Almost 9 out of 10 houses that were at least 18 meters away survived a wildfire.

ruler and a pencil, develop a landscape plan that places trees, shrubs, and other vegetation close to the house, but not so close as to cause a danger from wildfires. To do both of these tasks, you will need to convert the measurement of meters to inches using your ruler. For your own landscape plan, 1 inch equals 20 meters. Compare your landscape plan with your classmates'. Discuss why you designed the home's landscape the way that you did, and how your landscape plan will help to protect the home from wildfires but still provide the benefits of trees and other vegetation.

From: Cohen, J. D. (2000). Preventing disaster: Home ignitability in the wildland-urban interface. *Journal of Forestry*, March 15-21.



Legend:

-  Large Tree
-  Bushes

Scale:

1/2" = 20 meters
 For your landscape plan, use this scale:
 1 inch equals 20 meters.

Fire Safety Tips from the Firewise Communities Program

Do you live in or near a forest? If so, ask the adults in your household if they have protected the house from a forest fire. Here are some things you can do to protect your house from fire:

1. Establish a space around your house that does not have any combustible materials. This space should be at least 30 feet or 9 meters across. The larger the space, up to 130 feet or 40 meters, the better protected your house will be.

2. Reduce the amount of vegetation close to your home.

3. Remove or thin overcrowded or weak trees near your home.

4. Cut your grass and other plants regularly.

5. Move wood piles and building materials away from your home.

6. Keep your roof and yard clean. Clean your gutters regularly. Remove dead limbs and branches from your yard, and from the base of your chimney and deck.

7. Make sure your address is easy to read from the road, and that your driveway is large enough for emergency vehicles.

8. If you have a wood shake roof, replace it with a material that is more fire resistant.

9. Recycle your yard waste.

10. Listen to your local radio and TV stations for fire reports and instructions.