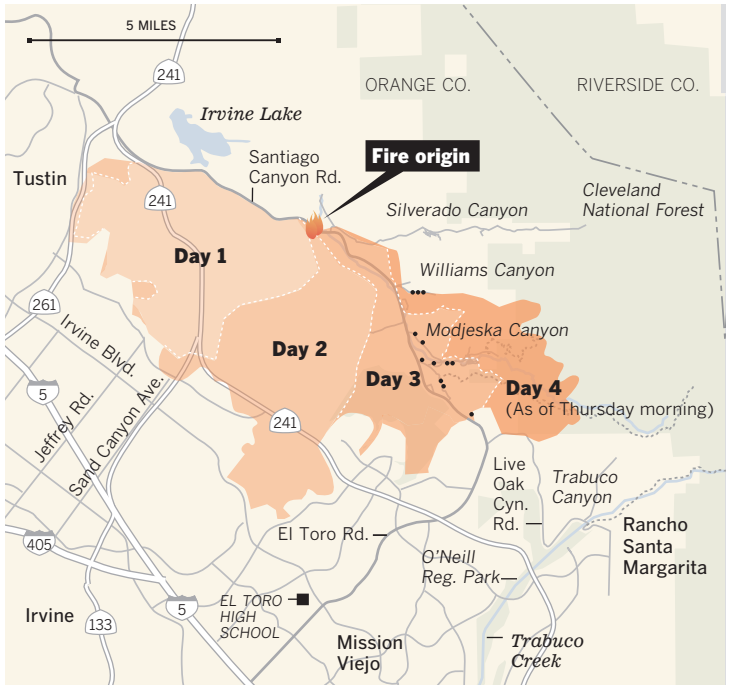
# Assessing a fire

Authorities investigating the Santiago arson fire are searching for clues. Typically, fire investigators start their search where the fire ended and work backward.

## Santiago fire

Progression, by day of fire · Home destroyed



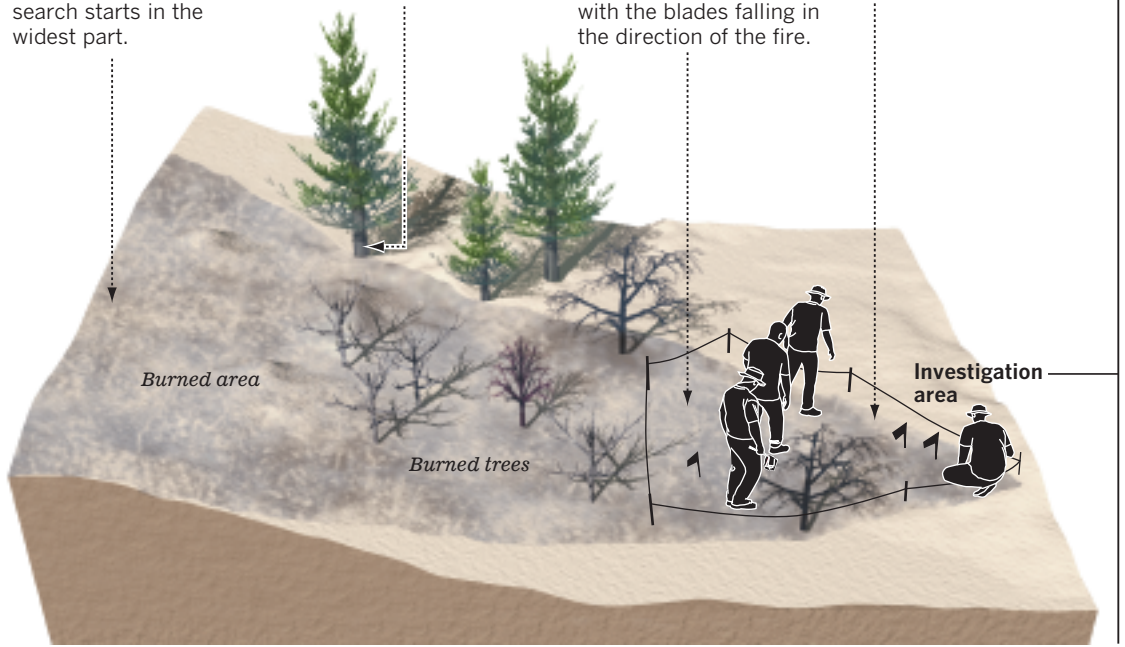

## Burn pattern

Because wildfires usually spread in a V- or U-shaped pattern, the search starts in the widest part.

**Burn patterns** on trees are a good indicator of fire direction.

**Fallen grass** helps indicate direction. Grass burns at its base first, with the blades falling in the direction of the fire.

**Ash piles** can also help determine what burned first.




## Point of origin

Investigators rope off a small area and walk in a tight line, sifting through ash, dirt and debris for matches, for plastic or metal remains from a bottle of accelerant, for lighters, for footprints or for tire marks.

### Detective sources and clues

**Firefighters:** What was the color of the smoke and flame? Were there odors or unusual characteristics of the fire?

- Gasoline produces a yellow or white flame with black smoke.
- A fire that spreads rapidly could indicate an accelerant.

**Weather officials:** Was lightning present?

**Satellite data:** Any natural causes?

**Neighbors:** Is the area popular with campers or hikers?

**Pilots:** Did they spot wildfires or see cars in the area?

*Sources: California Fire Alliance, Orange County Fire Authority, Interfire.org, HowStuffWorks.com, Crimeandclues.com. Graphics reporting by* Belinda Long

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