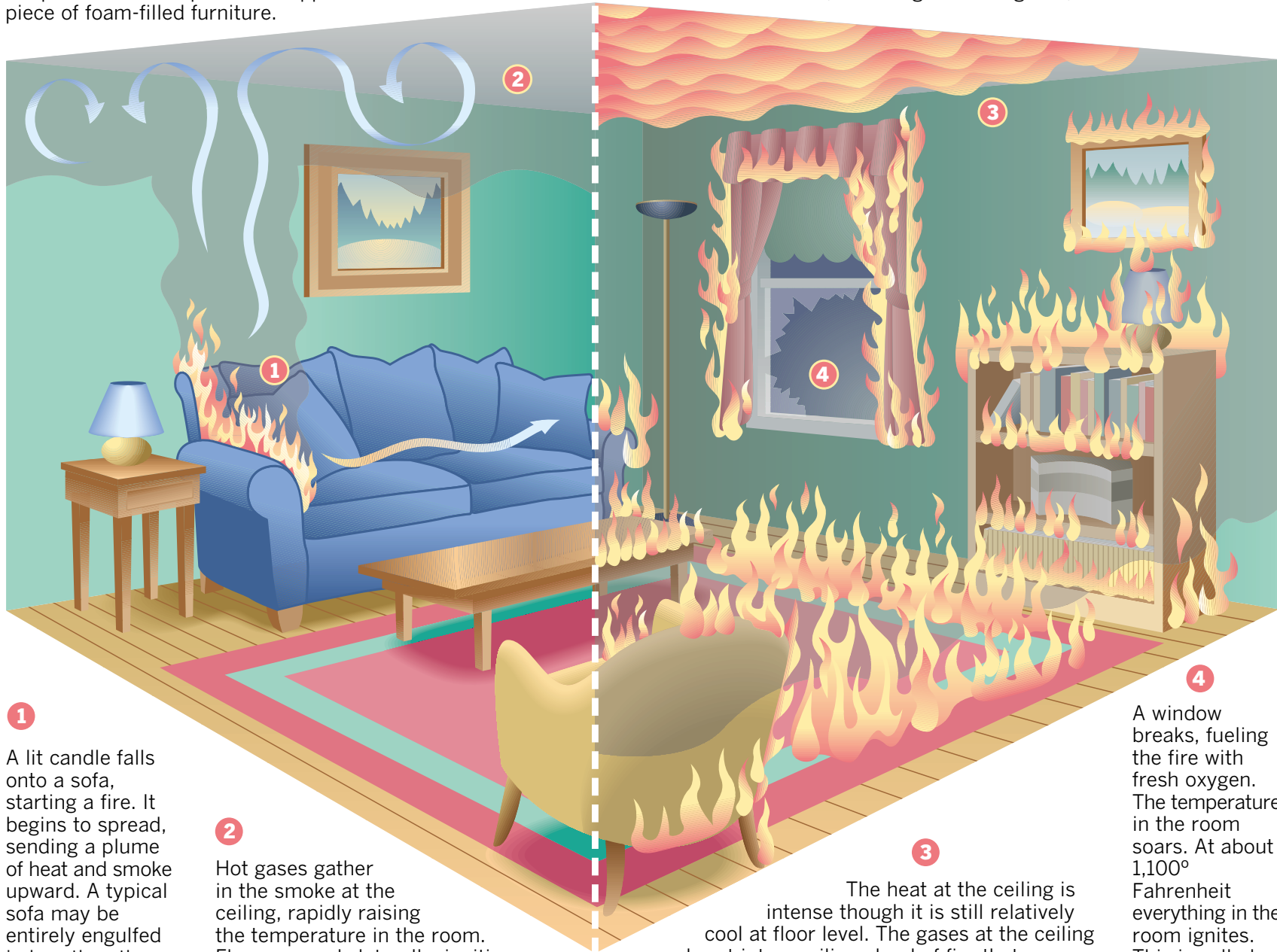


Tests conducted by the Fire Research Station in Britain show that a typical room fire will reach flashover in five minutes or less from the point at which open flame appears on a piece of foam-filled furniture.

Flame to inferno in five minutes

Flashover is the stage in a fire at which the heat has reached about 1,100° Fahrenheit all the way down to floor level. When this happens, all combustibles in the room, including airborne gases, burst into flame.



1
A lit candle falls onto a sofa, starting a fire. It begins to spread, sending a plume of heat and smoke upward. A typical sofa may be entirely engulfed in less than three minutes.

2
Hot gases gather in the smoke at the ceiling, rapidly raising the temperature in the room. Flame spreads laterally, igniting nearby objects.

3
The heat at the ceiling is intense though it is still relatively cool at floor level. The gases at the ceiling burst into a roiling cloud of fire that sweeps through the room. This is called flameover.

4
A window breaks, fueling the fire with fresh oxygen. The temperature in the room soars. At about 1,100° Fahrenheit everything in the room ignites. This is called flashover.