

How Fire Burns

Grade Level

K, 1, 2

Description: Students are introduced to the three elements of the Fire Triangle (fuel, oxygen, and heat).

Objectives:

- Students will examine three things that fire needs to continue burning (fuel, oxygen, and heat).
- Students will learn the safest method of stopping a personal fire (Stop, Drop, and Roll).

Materials:

- 3 birthday candles
- 3 balls of clay
- metal baking tray
- teacher-made fire triangle
- matches ***follow appropriate safety procedures***
- spray bottle with water
- glass jar
- poster depicting the Stop, Drop, and Roll procedure (teacher-made; or contact your local firehouse)

Procedure:

Draw a triangle on a piece of poster board. On each point label either Fuel, Oxygen, or Heat. Explain that this is the Fire Triangle, and that all three of these things are needed for a fire to burn. If any one thing is taken away, then the triangle collapses and the fire can't continue.

Set three candles standing in clay on a metal tray. Light each candle and discuss how you can make each fire go out by taking away one of the three things in the Fire Triangle. Explain that the fastest way to take heat away from a fire is to use cold water. Using the spray bottle, spray the first candle until the flame goes out. Next, tell students that the fire uses oxygen in the air to keep burning. When you place a glass jar over the flame, the candle can't get more oxygen to use and it will go out. Demonstrate. Finally, ask students to observe what is happening to the last candle as it burns (the candle is melting). Have students continue to observe the disappearing candle while you read a story related to fire safety. Discuss how the candle burned out because there was no more fuel, (wax), left for it to burn.

Review the three things a fire needs to burn. Discuss that since fires need oxygen in the air, it is unsafe to move around a lot when a person's clothing catches on fire. Moving exposes the fire to more air and will make it burn faster. Introduce the Stop, Drop, and Roll technique to be used in the case of personal fire. Demonstrate the technique and allow each student an opportunity to practice the procedure.

Assessment: Oral assessment can be conducted by asking students to review the three elements of the Fire Triangle. Individual assessment is useful by asking each student to demonstrate the proper Stop, Drop, and Roll technique throughout the week.

