



NAME \_\_\_\_\_ DATE \_\_\_\_\_

Fires need three things to burn: heat, fuel, and oxygen. This is known as the “fire triangle.”

1. Draw a triangle here. You will add to this picture as you conduct your investigation.

2. Attach a birthday candle to the inside of the jar lid with modeling clay. Place the lid and candle on a tabletop and use a match to light the candle. What element of the fire triangle does the match demonstrate?

\_\_\_\_\_

Label one side of your triangle above with the word and draw a picture that shows this element.

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3. Screw the jar onto the lid to cover the lit candle (so the jar is upside down). What happened?

\_\_\_\_\_

What element of the fire triangle does this demonstrate?

\_\_\_\_\_

Label another side of your triangle above with the word and draw a picture that shows this element.

4. Open the jar, relight the candle, and put the jar back onto the lid. When the flame starts to go out, reopen the jar. What happened?

\_\_\_\_\_

What does this show?

\_\_\_\_\_

5. Take the jar completely off the lid and allow the candle to burn until the flame goes out by itself. What happened?

\_\_\_\_\_

\_\_\_\_\_

How long did it take?

\_\_\_\_\_

What element of the fire triangle does this demonstrate?

\_\_\_\_\_

Label the last side of your triangle above with the word and draw a picture that shows this element.

6. Fire needs heat to burn. Initially, the heat is provided by a spark or flame, which can be produced by natural causes or generated by humans. Name two natural and two human-caused sources of heat that could start a fire.

Natural

- \_\_\_\_\_
- \_\_\_\_\_

Human-caused

- \_\_\_\_\_
- \_\_\_\_\_



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7. Fires need fuel to burn. Name three possible fuels you might find in a forest.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8. Fires need oxygen, which is available in the air. Hot temperatures and dry winds can create severe fire conditions. How might dry winds increase the chance of wildfires?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9. If you cut off any one of the three elements—heat, fuel, and oxygen—a fire will not burn. What is one way that firefighters might cut off each of the three elements of the fire triangle?

Heat: \_\_\_\_\_

Fuel: \_\_\_\_\_

Oxygen: \_\_\_\_\_

## CAREER CORNER

**WILDLAND FIREFIGHTERS** protect and maintain the health of the forest by preventing, controlling, and putting out forest fires, and lighting and managing prescribed burns. They may also talk to the public about ways they can help prevent fires.

I LOVE MY  
**GREEN JOB**!

