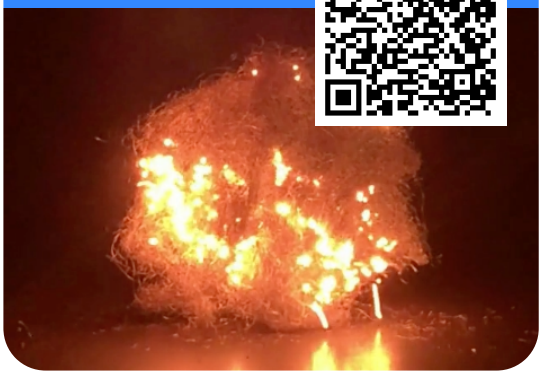
LearnLibre

CAN METAL BURN? (1 of 2)

Watch Lesson



10-15 minutes + waiting time + questions and journal time

Follow all safety instructions from LearnLibre.com during the experiment.

Before the Experiment

Ask an Adult. This experiment should be performed by an adult who has read and understands all fire safety considerations found with this experiment at LearnLibre.com.

Materials

- Fine-grade steel wool (0000 grade from the hardware store works best)
- 9-volt battery
- Contained fireproof surface

Procedure

1. Fluff up the steel wool, and put it on your contained fireproof surface.
2. Touch the battery terminals (2 little bumps on the end) to the steel wool.
3. Step back, and observe. IT WILL BE VERY VERY VERY HOT. Do not touch it.
4. When the sparks stop, let the steel wool cool, and throw it away with your regular trash.

Questions

1. Can you name what was used for each part of the fire triangle in this experiment?
2. Can metal burn? What else can be used for fire fuel? Is there anything that cannot catch on fire (is there anything that is not flammable)?
3. What temperature does steel wool need to get to in order to burn?
4. Do you think this demonstration would work with a steel rod instead of steel wool? Why or why not? (Think about the oxygen between the steel wool fibers in this demonstration).

CAN METAL BURN? (2 of 2)

Questions (continued)

5. How is this demonstration similar to lightning?
6. How do electricity companies prevent electrical fires?
7. How can the concepts from this demonstration be used in the "real" world?

See answers and learn more about how this experiment works by scanning the QR code at the top of the 1st page.

Clean-up

Wash and dry any tools you used, put materials back where you got them from, clean your work station.

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