

Burning Magnesium: hook activity

Summary

In this activity a small piece of magnesium is burned and the energy given off analyzed and discussed.

Time Frame

1 class periods of 30 minutes each

Group Size

Large Groups

Materials

magnesium ribbon
lighter or wooden matches
long tweezers
oven mitt

Instructional Procedures

Cut a 3-5 cm piece of magnesium ribbon. Walk around the room and show students the ribbon. Discuss its properties and ask students to suggest ways the magnesium could be made to undergo chemical change. Students may write in a journal or on notebook paper if you wish them to record their observations. Do not let students handle the magnesium because it is easily stolen and this is entirely a teacher demonstration.

Put on the oven mitt and place the ribbon between the tweezers. Light it with the match or lighter. Hold the ribbon away from you and get as far away from students as possible. Ask students not to stare directly at the glowing ribbon as it will leave "spots" in their eyes. Students often wish to see the demonstration again, try it with the lights out for a special effect. Mention that the glove protects your hands from the heat of the reaction.

Rub some of the remains of the burned magnesium on the palm of your hand and show students. It is now a white powder.

Ask students the following questions:

What evidence indicates a chemical change has taken place?

What was necessary to start the chemical change?

What types of energy were given off during the chemical change?

Was more energy required to start the reaction than was given off during the reaction?

What did the magnesium react with?

Assessment Plan

Answers to questions

:

heat and light were given off, a new substance formed

Energy was necessary to start the chemical change.

Heat and light were given off.

More energy is given off during the reaction.

Magnesium reacts with oxygen in the air.

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

[Utah LessonPlans](#)