

Praxis “Making Science Fun”

Classroom Chemistry – Black Snakes

Create your own “black snakes.” Black snakes or glow worms were small tablets that you lit one end and it produced a long black ‘snake’ of ash. Although once sold as a kid’s toy (fireworks) the fumes from it were toxic. You can make one that isn’t.



Materials:

- baking soda
- old ceramic, glass or metal plate or a flat rock or cement sidewalk.
- icing sugar
- Fuel (rubbing alcohol or lighter fluid)
- sand
- lighter or matches

Procedure: (Remember to have your parent’s permission and they have time to watch and help you.)

- Do this outside to make cleanup easier and to reduce the issue of smoke and smell.
- Mix 4 parts of icing sugar with 1 part of baking soda.
- Pour some of the mixture on the plate or rock; make it into a mound and push a depression into the middle of it. This reaction involves fire and will leave a burn mark.
- Have your parents pour a little fuel into the depression to wet it and light it on fire.
- **Caution never add fuel or mixture to the still burning snake.**

What's happening?

At first you’ll get scattered blackened balls but once the reaction starts the carbon dioxide will puff the carbonate into a continuous snake of ash. The sodium bicarbonate breaks down into sodium carbonate, water vapor, and carbon dioxide gas. Burning the sugar in oxygen produces water vapor and carbon dioxide gas. The snake is carbonate with black carbon particles. The reaction smells like burnt marshmallows.

Extension:

You can use ammonium nitrate instead of sugar for a slightly better result. Mix one part of ammonium nitrate with one part baking soda. Note this is a somewhat smellier reaction than the sugar and baking soda.

This activity is based on our “Classroom Chemistry” kit that is currently under development. Our teaching kits (described on our website) are loaned out FREE to provide classroom teachers and parents of home schooled children an opportunity to explore Science in interesting ways. Please consider volunteering as a classroom speaker or allow your business as a field trip location.



Future Event: Praxis will be involved with the [Summer Camps for Kids](http://www.praxismh.ca/SummerCampsforKids) put on by Medicine Hat College. Praxis developed and supplies the kits used at both the Medicine Hat and Brooks camps. For more information check out <http://www.praxismh.ca/MHCsummercamp.html>.

The Annual General Meeting of the Praxis Society will be held at 7:00 pm on June 20, 2012 room B301 at Medicine Hat College. Members of Praxis as well as the general public who may be interested in joining Praxis are invited to attend but please RSVP.

Lorne Cooper, Regional Executive Director

PRAXIS, “Making Science Fun”. Contact Praxis at praxis@praxismh.ca, www.praxismh.ca, Tweet or follow us @PraxisMedHat, or friend us on Facebook. Address: c/o 200 7th Street S.W., Medicine Hat, AB, T1A 4K1 Phone: 403-527-5365, Fax: 403-527-6570.