



The Science & Technology Hotline

Science Fair Workshop

Praxis and the Medicine Hat Public Library are pleased to be working together in order to bring you a Science Fair Workshop. I have had many parents and students come and ask for assistance on putting together a science fair project. This workshop will hopefully take the fear out of Science Fair.

This informative afternoon will take place on January 25, from 2:00 p.m.—4:00 p.m. at the Medicine Hat Public Library in the Currie Room.

You are invited to come out and learn what is involved in putting together a Science Fair project/presentation, learn what the judges will be

looking for at the Regional Science Fair, take home some useful handouts, as well as learn about the wonderful resources the Medicine Hat Public Library has to assist you with your Science



Science Fair Projects do not have to be difficult and confusing.

Fair project.

If there is something specific you would like to see at the workshop, I would like to encourage you to call me and I will try to add it to the presentation.

This workshop is to assist students (ages 9–12), teachers and parents.

Pre-registration is required and at least one adult must accompany any children. Space is limited to 40 participants. Registration opens January 6, 2004. Please call Erin Doyle, Head of Children's Services at the Medicine Hat Public Library @ 520-8526 to register.

Important Local Activities!

Operation Minerva

Operation Minerva is a Conference designed to stimulate interest and awareness in Science, Math and Technology in grade 9 girls. Preparations for the 12th annual Operation Minerva Conference are well underway.

The Conference is still in need of female mentors. The mentors are an integral part of the Conference in that the girls spend the entire morning at the female mentors place of employment. By gaining hands on experience at a place of em-

ployment, the girls can gain a better understanding of what they would be required to do should they also go into the same profession. If you know of any interested female professionals, please have them call Praxis @ (403) 527-5365 and we can discuss how they might be able to become involved in this worthwhile event. further.

If you or your school is interested in participating, but did not receive an invitation, please call Praxis to discuss how to get your school involved.

Science Alberta Foundation Science Crate Plugging IN

There may still be time to book your class into this great exhibit at the Medicine Hat Public Library. Hundreds of students from all over southern Alberta have already taken part.

This exhibit contains hands on science activities dealing with alternative energy.

Call Hilary Munro at the Library @520-8525 to see if there is still room for your class to participate! You do not want to miss out!

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Newsletter

Web Resources:

- *Sciencemaster in an e-Newsletter (usually sent monthly). It has current topics in research and information from around the world. Such topics covered include the Human Genome Project, You can subscribe to this newsletter @ <http://www.ScienceMaster.com>.*
- *SCiberMENTOR is an online e-mail mentoring program for girls aged 11–18. This opportunity allows students to explore careers in science. SCiberMENTOR helps to expand the knowledge of careers, opportunities and benefits that exist for women in science and engineering fields. Have your students visit www.sciberementor.ca for more information.*
- *A virtual science centre to help teachers. Some great hands on activities teachers can use are available at this site. Visit <http://www.sciq.ca>.*
- *Have you ever been stuck for a worksheet to use, and class is going to start shortly? Do not feel bad, as you are not alone. If you are a Chemistry teacher, you are in luck. This site has a number of different worksheets that fit well with the Alberta curriculum. Visit <http://www.cavalcadepublishing.com> for more information.*





The Colours of Candy

Don't be scared by the length of this experiment. It is actually quite easy to do and prepare. Your students will appreciate you even more if you give them the leftover candy to eat after the experiment. Be sure to tell them though that you never eat anything in the Laboratory, and that this is an exception.

This experiment will allow you to compare the different colour coatings on candy using chromatography.

Materials

M & M's candy
Skittles
Smarties
Reese's Pieces*
salt solution
coffee filters
16 plastic cups
4 large beakers
Toothpicks or small paintbrush
stirring rods
ruler
scissors pencil
masking tape
small zip lock type bags
distilled water
salt (pickling, not iodized)

*(you may want to omit Reese's Pieces if there are any nut/peanut allergies in your classroom)

Procedure

1. Sort the candy according to type and colour into zip lock bags. Label

the bags and set aside.

2. Prepare a salt solution. Measure 100 mL of salt to one litre of distilled water. Stir well. Set aside.
3. Cut the coffee filters into long strips approximately two centimetres wide and ten centimetres long.
4. Label the filter paper with a **pencil**. Write the type of candy and the colour on the top of the paper.
5. Label the small plastic cups. For example—#1 M&M'S blue etc.
6. Place two pieces of candy in each of the cups.
7. Add a couple of drops of water to the candy. You do not want to add too much. Stir gently.
8. Watch very closely, as you want all of the colour to come off of the candy.
9. Once you see the white candy coating, remove the candy pieces from the cup and discard. Set the colour solution(s) aside.
10. Tape a piece of filter paper to a pencil. It should be hanging freely from one end.
11. Using the colour and type of candy labeled on the filter paper, add a small amount to the filter paper. You will do this using the toothpick or small paintbrush. Carefully put a dot in the middle of the filter paper approximately 1/4 of the way up. Allow the colour to dry and then



Using materials the students can relate to (such as candy), will really grab their attention and

paint on some more. Repeat this until you have a nice dark colour spot (approximately 5 or six times). Allow this to dry completely.

12. Fill a beaker 1/8 full of the salt water mixture. The salt water should just be covering the bottom of the beaker.

13. Carefully set your piece of filter paper with the colour painted on it on the rim of the beaker. It should rest here and the bottom tip of the filter paper **should just sit** in the salt water.

14. Watch as the salt water is drawn up the filter paper.
15. Observe what happens to the colours that were painted on the filter paper.
16. Leave the filter paper in for 10 minutes in order to make sure the whole process is finished.
17. Set aside and allow the **chromatograph** to dry.
18. Observe how far the colour traveled up the filter paper. Use a ruler to take exact measurements if you wish. Compare the colours the red Smarties to the red M&M's. Compare the rest of the colours and candies.

What is going on?

Chromatography is the study of colours. In this experiment you did a paper chromatography experiment. You used a solvent (salt water) to separate the colours in the different candy coatings. You

For all of your science questions or needs, contact
Praxis :
p/f: (403) 527-5365
e: mhpraxis@telusplanet.net
w: <http://www.telusplanet.net/public/mhpraxis>