

October 2003

Newsletter



THE SCIENCE & TECHNOLOGY HOTLINE

PRAXIS

Science & Technology Week In Alberta

October 10—19, 2003 is Science and Technology Week in Alberta.

Many exciting events are going to be taking place throughout the province. Right here in Medicine Hat, Praxis will be holding their annual **Family Science Olympics on Saturday, October 18**. This is a **FREE** event for "families" to participate in.

There will be activities for **ALL** ages, prizes and refreshments.

All "families" are welcome to participate, **BUT** at least one member must be over the age of 18.

The Family Science Olympics details are as follows:

DATE:

Saturday, October 18th

TIME:

10: 00 a.m. - 3:00 p.m.

LOCATION:

Medicine Hat High School Science Centre (enter on 5th street)

COST:

FREE

Visit the Praxis website for pictures of past events @ <http://www.telusplanet.net/public/mhpraxis>.

For further information, or questions, please call (403) 527-5365.

The details of the Land-Back Project, an exciting challenge for students about land reclamation will be sent out this week. Watch for it!

For more activities throughout Alberta, visit: <http://www.scitechweek.gov.ab.ca/events/index.cfm>



Come out for an exciting day at the Family Science Olympics

Science Challenge 2003/2004

It's back....

There was such a great response to the Science Essay Challenge last year that The Medicine Hat NEWS and Praxis have decided to run it once again this school year. The contest is better than ever and a great learning opportunity for all junior and senior students in the Medicine Hat and surrounding areas. Keep reading the Medicine Hat NEWS for all of the student submissions!

I know that last year many students did not know what to write about. This year, I have posted some topic and idea suggestions on the Praxis website @ <http://www.telusplanet.net/public/mhpraxis>. These suggestions are by grade and fit with the curriculum.

The criteria for all submissions is as follows:

1. Suggested Length

Submissions are to be a maximum of 350 words in length, typed and preferably submitted in electronic format (on disk or e-mail) and/or print form. Send all submissions to:

Patty Rooks, Praxis, c/o 200 7th Street S. W., Medicine Hat, Alberta, T1A 4K1, p/f: 403.527.5365, e-mail: mhpraxis@telusplanet.net.

2. Deadline(s)

The deadline for submissions is the first day of each month throughout the school year. If you want to have your essay in the October column(s), be sure to have it in by October 1. Enter as often as you wish, but winning submissions will be limited to two per person for the year.

3. Judging criteria:

Articles will be selected for publication based on the following criteria

- accuracy of informa-

tion presented

- originality/creativity
- spelling, structure, grammar etc.
- judges decisions will be final

4. Awards

Your hard efforts will not go without fame and fortune...

- The winning monthly submission (s) will be published in the Saturday edition of the Medicine Hat News.
- Each winning submission will receive a \$200 cash prize.
- At the end of the academic year, all winning submissions have a chance to win the \$1000 grand prize.
- **The grand prize-winner's science teacher will receive a \$200 science gift certificate for use in their classroom.**

Amplifier

Have you ever wondered how the large sound amplifiers take music and make it seem so loud? The experiment below will help you understand this better.

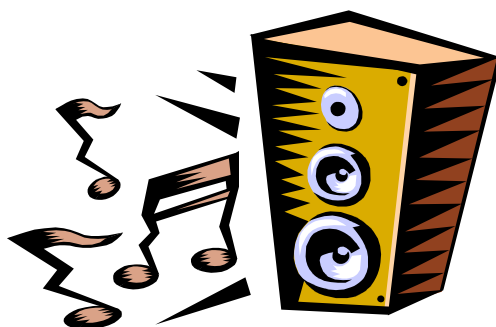
Materials

balloon (round, party balloons will work best)

Procedure

1. Blow up the balloon.
2. Tie a knot in the end of the balloon so the air will not escape.
3. Hold the balloon in one hand.
4. Gently tap the balloon.
5. What does it sound like?
6. Hold the balloon right up against your ear.

7. With your other hand, tap lightly on the balloon. **Caution: Do not poke or hit the balloon too hard while it is up against your ear as it will pop and hurt your eardrum.**
8. Listen carefully. What do you hear?



Can air amplify sound?

What is going on?

As you tapped your finger against the balloon, it should have sounded louder than if you were listening to your finger tap the balloon when your ear was not up against it.

The sound is amplified through the balloon. This is because the molecules of air are very close together within the balloon. When you blew up the balloon, your lungs forced the air into the balloon. By forcing air into the balloon, you caused the air molecules to be very tightly compacted. When something, even air is very tightly compacted, it becomes a better amplifier. The sound was actually amplified through the balloon making it sound much louder.

Orchestra

Materials

5 glass drinking glasses
water
metal spoon

Procedure

1. Fill the first glass 1/5 full of water.
2. Fill the second glass 2/5 full of water
3. Fill the third glass 3/5 full of water.
4. Fill the fourth glass 4/5 full of water.
5. Fill the fifth glass full of water.
6. Line your glasses up on a smooth,

flat surface in the order you filled them up.

7. Gently tap the side of each glass with the metal spoon.
8. Listen carefully after tapping each one.
9. What do you hear?
10. Repeat the experiment with different amounts of water. For example, fill one glass 1/3 full, one 1/2 full, another one 1/4 full and so on.

What is going on?

As you tapped each glass of water, you should have heard a different sound.



Keep trying until you can create the sounds of your favourite song.

You are able to hear different sounds because the vibrations you created move at different rates. The vibrations will move slower in the glasses with more water. A much deeper sound or tone is heard. When the glass is not very full, the vibrations move much faster. This results in a much higher tone being produced.

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>