The Science & Technology Hotline

Classroom Enrichment Opportunities

November 2004
Newsletter

Evergreen Theatre

Evergreen Theatre is a non profit organization that promotes environmental stewardship. They have many great programs that your school may be interested in taking part in.

Program #1 "**Rockin and Erodin"; The Geology of Climate Change**. This is a full day program. Your students will enjoy an hour long science theatre show followed by a full day of six in class, hands on science workshops.

Program #2 "**How The West was Fun!"** This program will be in southern Alberta beginning in January 2005. What better way to celebrate Alberta's Centennial than with a program about the exploration of Alberta's rivers, resources, people and places.

For more information, please call Praxis or Visit the Evergreen Theatre website @ http://www.evergreentheatre.com.

Fieldtrips and Classroom Speakers

Are you looking for a fieldtrip that is curriculum specific? Have you wondered just what Southern Alberta has to offer your students? Do not hesitate to call Praxis with your fieldtrip request. Praxis can make all of the arrangements for you. All you have to do is book the bus!

Allow your students to experience a "Scientists in the Classroom".

Praxis also has classroom speakers and demonstrators that can enrich your curriculum topics.

Call Praxis @ (403) 527-5365 or e-mail: mhpraxis@telusplanet.net to book today!

Science Fair 2004/2005

It is never too early to begin preparations for your science fairs. Praxis can help by offering support, workshops, and judges.

Hopefully you received your "Science Fair How To" in the Innovation and Science package that came to each and every school in October during Science & Technology Week. If not, contact Praxis and one can be sent to you ASAP.

This year the Regional Science Fair is scheduled for Saturday, March 19, 2005. It is early this year, due to the Easter break falling early. Registration will be due in early March. Watch your mailboxes for forms to register your students.

There are many prizes to be won, including cash and trips. I hope to see your students there!

Volcano Facts

- With all of the recent news coverage surrounding the recent activity on Mount St. Helens , I thought some information about volcanoes would be interesting.
- There are three basic types of volcanoes.
- **Composite Volcano**. This volcano is cone shaped. The sides of the volcano are very steep and have been built up from the many eruptions. The lava forms and hardens. This volcano has a single opening or vent in which the lava would flow out of.
- **Fissure Volcanoes**. These volcanoes are basically cracks in the earth. The lava does not have a single opening to come out of, so often times it will just ooze out of the crack.
- **Shield Volcano**. This type of volcano typically has several openings. Thin lava usually flows form this type of volcano continuously.
- What kind of volcano is Mount St. Helens? Hint:: visit: http://vulcan.wr.usgs.gov/Volcanoes/MSH/framework.html for more information on this volcano.

Making An Electromagnet

Materials

1 long iron nail

roll of insulated copper wire

2 D cell batteries

scissors

paper clips

duct tape

paper clips

ruler

Procedure

1. Using the duct tape, tape the two D cell batteries together. It is important that you connect them with the negative end touching the positive end. Set aside.
2. Measure out 60 centimetres of insulated wire.
3. Using the scissors, and working on a sturdy, flat surface, scrape off approximately two centimetres of the insulation off of both ends of the wire.
4. Wrap the wire around the nail. Be sure to leave a few centimetres on each end.
5. Attach the ends of the wire to the ends of the stack of batteries you made. You can tape them on.
6. Place the nail beside a stack of paper clips.
7. How many paper clips will it pick up?
8. Try increasing or decreasing how many times you wrap the wire around the nail. Does this affect how many paper clips you can pick up?

Explanation

How strong is your electromagnet?

By increasing the number of turns around the nail, you increase the strength of the electromagnet. This is because you are increasing the amount of current that is going through the wire.

Compass

Materials

magnet

sewing needle

glass bowl

water

piece of Styrofoam or plasticine

compass (Optional)

Procedure

1. Fill the bowl full of water.
2. Take the needle and rub it on the south pole of the magnet. Note: only stroke the pin in one direction, not back and forth.
3. Stick the needle through the piece of Styrofoam or plasticine.
4. Gently place the needle in the bowl of water.
5. Observe.
6. Turn the bowl, what happens?
7. If you have one, use an already made compass to see which direction the needle is pointing.
8. Is this the direction you thought it would be pointing?

Compasses similar to this were used on the first ships that sailed the seas.

Explanation

When you turn the bowl, the needle should quickly turn to the direction it was originally pointing in.

The needle on your compass should be drawn toward the magnetic fields of the Earth and should be pointing in a North position.

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

Alberta Science Literacy Association