Praxis

The Science & Technology Hotline

May 2003
Newsletter

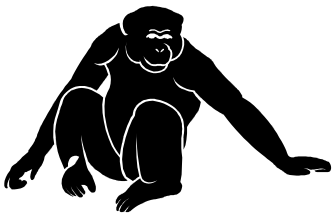
Information

As the end of the school year is fast approaching, many of you will be looking for fieldtrip ideas for your science classes. Some ideas:

Calgary Science Centre

The Calgary Science Centre has some exciting new programs including:

- Jane Goodall's Wild Chimpanzees



Take in Jane Goodall's Exhibit at the Calgary Science Centre

This program complements the following grade levels:

- Grade 1 needs of Plants and Animals
- Grade 3 Life Cycles
- Grade 6 Trees and Forests
- Grade 7 Interactions and Ecosystems
- Grade 8 Cells and Living Systems
- Grade 9 Diversity of Living Things and Environmental Quality
- Science 14 Investigating Matter & Energy in the Environment Unit

Students will be immersed in the forest environment of the Gombe National Park in Tanzania as they accompany world renowned wildlife biologist, Jane Goodall on her treks to observe chimpanzees in the wild. They'll meet Goodall's now famous chimpanzee subjects and get an up close look at them as they fight, hunt, play and communicate with one another. And they'll meet the next generation of researchers at the Gombe National park.

You can finish off your visit to the Science Centre with a look at the new photo exhibit **Chimpanzees of Gombe Stream.**

Last Chance

Essay Challenge

The end of the Praxis Science Essay Challenge is fast approaching. The deadline for entries will be June 1. If you get your entry in by this date, you will be eligible for the monthly prize of $200.

After June 1, all winning submissions will be judged for the best outstanding essay. The winner of the best essay for 2002/2003 will win $1000.

Remember to keep your submissions to 350 words and they must be typed. Please send them to mhpraxis@telupslanet.net or to Praxis, c/o 200 7th Street S. W., Medicine Hat, Alberta, T1A 4K1.

If you have any questions, lease do not hesitate to contact me at (403) 527-5365.

GOOD LUCK!

Weather Trivia

- *Clouds are masses of water droplets and ice crystals that form in the air.*
- *There are three main categories scientists put clouds into: cirrus, cumulus, and stratus.*
- *Cirrus clouds are the highest of the common cloud formations. They are made up of ice crystals. They may signal bad weather.*
- *Cumulus clouds are fluffy white clouds.*
- *Stratus clouds are low lying blankets of gray clouds.*
- *The names of clouds come from Latin. At one time Latin was the universal language of science.*
- *Clouds are classified according to their height from the earth. This is measured from the lowest point of the cloud.*
- *Fog is really a cloud that is hanging close to the ground. Fog usually develops in areas where there are cool temperatures, high moisture and a light breeze.*

Electromagnet

Did you know that you can make a strong magnet using electricity? You can easily make an electromagnet with simple materials available at home or the local hardware store.

Materials

scissors

long nail

plastic coated copper wire (approximately 2 metres)

50 paper clips

black, electrical tape

wire strippers (optional)

6V battery (large square one)

ruler

Procedure

1. Measure one metre of the insulated wire. Cut. Repeat. You should have two pieces now.
2. Take one piece of wire. Using the scissors or the wire strippers, peel off approximately three centimetres of insulation from each end of the wire. Repeat with the second piece of wire.
3. Measure out 15 centimetres from the end you stripped the insulation off of. From this point, begin wrapping the wire around the nail.
4. Wrap the wire around the nail 20 times.
5. If the wire will not stay on the nail, tape it down with black electrical tape.
6. Take the bare end of the wire and attach it to one post of the battery. Repeat with the other side.
7. Hold the nail over a pile of paperclips. Can you pick any up?

How strong is your magnet?

8. Increase the strength of the magnet by wrapping the wire around the nail 40 times.
9. How many paper clips can you pick up now?
10. Try again with 60 wraps.

What is going on?

You have made a magnet out of the nail. When you wrapped the wire around the nail and connected it to the battery, an electric current created a magnetic field around the nail. The more wraps of the copper wire, the stronger the field you created and the more paper clips you should have been able to pick up with the electromagnet.

Electric Lemon

You can actually make a tiny electric cell with a lemon. The lemon works like an electric battery.

Materials

lemon

paper clip

bare copper wire/strip of copper metal

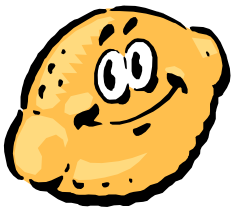
wire strippers (optional)

scissors

2—30 cm pieces of insulated copper wire

Procedure

1. Take one piece of insulated copper wire and peel off approximately 3 cm of the insulation off of both ends. Repeat with the other piece.
2. Straighten out the paper clip.
3. Push the paper clip into the lemon.
4. Push the bare piece of copper wire into the lemon, approximately 2 cm away from the paper clip.
5. Attach the wires to the “electrodes”, both the paper clip and the bare copper wire. You can do this by twisting the two ends together.
6. Hold the other two wire ends together in one hand, or between two fingers.



7. You should feel the wires tingle your fingers.
8. Try other fruits and vegetables.

Explanation

Your fingers felt a tingle because there was electricity coming from the lemon. By holding onto the wires, you completed the circuit between the two metals and the acid in the lemon.

Note: If you have trouble feeling the tingle, wet your fingers slightly.

For all of your science needs, contact Praxis :
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w: http://www.telusplanet.net/public/mhpraxis

Alberta Science Literacy Association