Magnets Video Conference

Experiment materials to have ready during the conference

The unique aspects of video conferencing introduce new challenges when presenting science workshops and shows. Interactivity is paramount and as such we ask that your class have some materials ready for experiments during the video conference. Whilst we may not use all of the materials listed, it will provide an opportunity for your students to do experiments rather than simply just watch a presentation.

Due to the need to keep the conference running at a reasonable pace, we suggest only a couple of students demonstrate each experiment to the rest of the class. If we don't use some of the materials, just run those experiments after the conference!

Experiment 1: Make a compass

You will need:

- 1 iron needle (normal sewing needle)
- A small piece of Styrofoam or cork
- 1 bar magnet
- 1 flat pie plate

1. Fill the pie plate with water, about 3cm in depth.

2. Float the Styrofoam in the middle of the plate.

3. **Carefully** stroke the needle *lengthways* along the bar magnet, around 30 times.

4. Gently place the needle on the Styrofoam and watch what happens.

Experiment 2: Make an electromagnet

You will need:

- 1x 6 volt large battery (used with torches)
- 1 steel rod, tent peg or similar
- 1 roll of insulated electrical wire from an electronics store
- Metal paper clips, staples or anything else that's small and made of iron
- Wire strippers or some pliers

Optional:
Alligator clips attached to the both ends of the 1 meter piece of insulated wire will make it easier for students to set it up.

1. Strip 2cm off both ends of the insulated wire

2. Wrap the wire tightly around the iron bar, keeping the wire loops next to each other each time
   Do this at least 40 times!

3. Connect the wire ends to the battery terminal and connect this to the battery

4. Try to pick up paperclips using the iron bar. How many can you pick up?

5. Would the size of the battery make a difference on the amount of weight you can pick up?

Over 150 free science experiments with full descriptions for extra lesson plans

http://www.fizzicseducation.com.au/Free+experiments.html

Join us on the FizzicsEd & FizzicsTWIST Podcast!

- **Interviews with leading STEM educators on the FizzicsEd podcast**
- **A quirky take on recent science & Technology news on the FizzicsTWIST podcast**

Copyright Fizzics Education Pty Ltd