

Resonant Pendulum
Notes to the Future

It would be simplest to find the materials at a hardware store like Amy's hardware. Instead of sand we used rice and it worked just as well and is probably cheaper than a bag of sand. Also we used rope opposed to chain but don't get really thick rope or the exhibit won't work very well. Try to get weaker magnets for the size and weight of your can because the exhibit doesn't work if the magnets are too strong.

Along with any other materials you buy it might help to have some type of barrier for the exhibit day to keep the elementary students out of the line of fire from the swings. Painting the can in a cool way also attracts the attention of people and makes them ask you what it is. Putting the exhibit together doesn't take very long but making sure everything is working right and is the right strength or weight is time consuming.

Making a poster helps at open house and a lot of parents like to read it before you explain the pendulum to them, but it's hard to get the students interested in what the pendulum really is because they're just looking for what looks like it would be cool or something familiar to them. The students seemed to really like the exhibits where it was a competition to try to complete something so you could try making a target for them to hit, but be sure it's sturdy because that heavy can means business when it swings.

Adding a second magnet didn't really help because it was hard to keep the kids interested with just one magnet and hard enough for some to do with just one magnet. The easiest way to get the kids to understand how the pendulum works is to explain how it relates to swings at the playground.

At first we were having them try to get the magnet on a string to stick to the paint can but it took too long and the kids got frustrated and bored of waiting so it works better just to put the magnet on the bucket yourself and then they can do the rest.

Also try to know as much as possible about resonance and what exactly everything means about a resonant pendulum because the parents like to know more about it and ask in-depth questions.

Good luck and have fun, remember to be excited about explain the exhibit no matter how boring you think it is.