

## OUR NEXT MEETING...

...is at  
**Loyola University**  
**Wednesday March 9**  
 6:30 – 9:00

Scroll down for directions and a map.

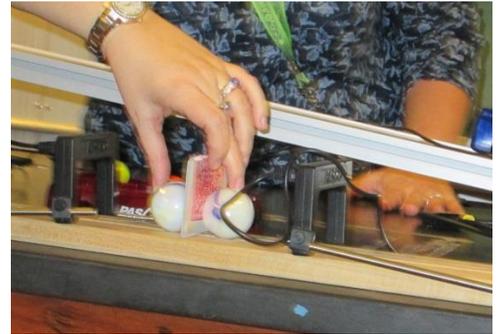
## FUTURE MEETINGS...

DATE	LOCATION	CONTACT
April 20	Lake Forest College	Mike Kash
May 2	Northwestern University	Art Schmidt

## AT OUR LAST MEETING...

...at Lane Tech High School on February 18,

...**Karlene Joseph** began the meeting with a demonstration of conservation of momentum that her students made up! When the mechanics units are over, Karlene assigns each student group to make up a demonstration of a law or principle that had been developed. The one suggested by one group of students is to place a folded playing card between two marbles, release the card, and then use photogates to measure the speeds of the marbles after the “explosion” of the card. It worked out pretty well. She tried it with a heavy and a light marble but that did not work as well. I wonder why not? Karlene had a set of marbles and cards for us to take home and try for ourselves.

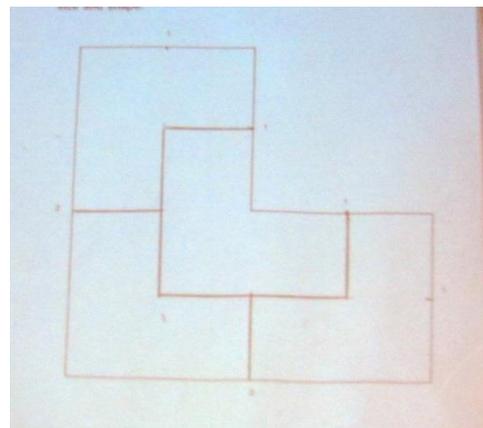
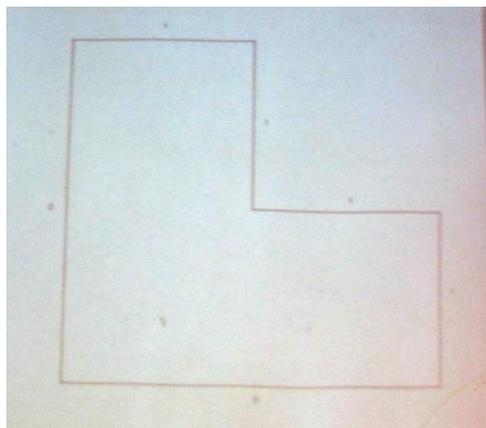


Our new teacher bag went to **Ross Hyman** who is now student teaching at North Grand High School. **Bill Blunk** reminded us how playgrounds once had merry go rounds that kids could jump on. They could experiment with centripetal force by moving towards the center. He then balanced a dime on a bent coat hanger and spun it in a circle. He reminded us how hard it is to stop without dropping the dime. He also had a pizza plate and water glass demo except he used a toy mole.



**Pete Insley** and **Betty Roombos** showed a demo that Betty and her sister showed Pete when they were in his class in '64. It's called the 3<sup>rd</sup> Law game. Two contestants stand facing each other and try to get the other to move their feet by pushing on their hands. If you concentrate you can feel reaction forces.

**Debby Lojkutz** brought a couple handouts. On one the students were to divide an "L" shaped figure into four equal parts with the same shape.

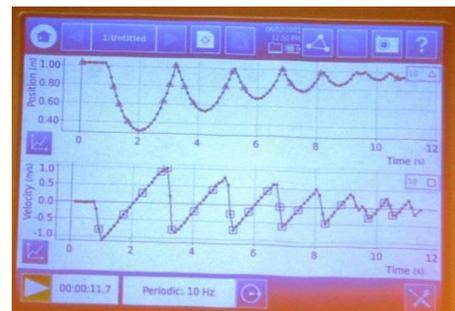


The other was an instruction sheet for the Millikan eggs lab. She included a sample data set to show what the results look like. The eggs were filled with

different numbers of standard weights (like nickels). But weighing, the students can find the weight of a single nickel by looking at the difference between the eggs.

**Roy Coleman** assigned his students to find the volume of air in their bathrooms. They needed to find the volume of the room and then subtract out the volume of the objects in the room (sink, toilet, etc.)

**Karlene** returned with some carts and a ranger connected to a computer that showed distance/time and velocity/time graphs. She did a cart collision and then let the cart hit the ranger and asked the students to interpret the graphs.



She lifted the ranger end of the track and let the cart bounce a few times on the other end and got some interesting graphs.

**Chester Szmurlo** brought a 10-sheet pack of information on the Sun and planets (including Pluto). Then he asked the students to construct a scale model of the solar system.

The first sheet had a 10cm circle representing the Sun. Given the actual Sun diameter he found a scale. The second sheet had Mercury. Chester gave the diameter and the scale diameter (D.034cm) and the distance from the Sun and the scale distance (4.1m). This continued page by page for all the planets.

Then he gave the students a set of beads and asked them to find an appropriate bead for each planet. They taped the beads on the sheet and hung the Sun sheet on the classroom door. 4.1m down the hall they hung the Mercury sheet. He continued through Venus and Earth and asked the students where they expected Pluto would end up. He eventually led the students down the corridor, downstairs, and back down the first floor, outside and across the field, etc. I think they had to give up on Neptune.

The exercise took a whole period but it's one the students won't forget.

Submitted by Pete Insley.

## **Directions to Loyola University Chicago**

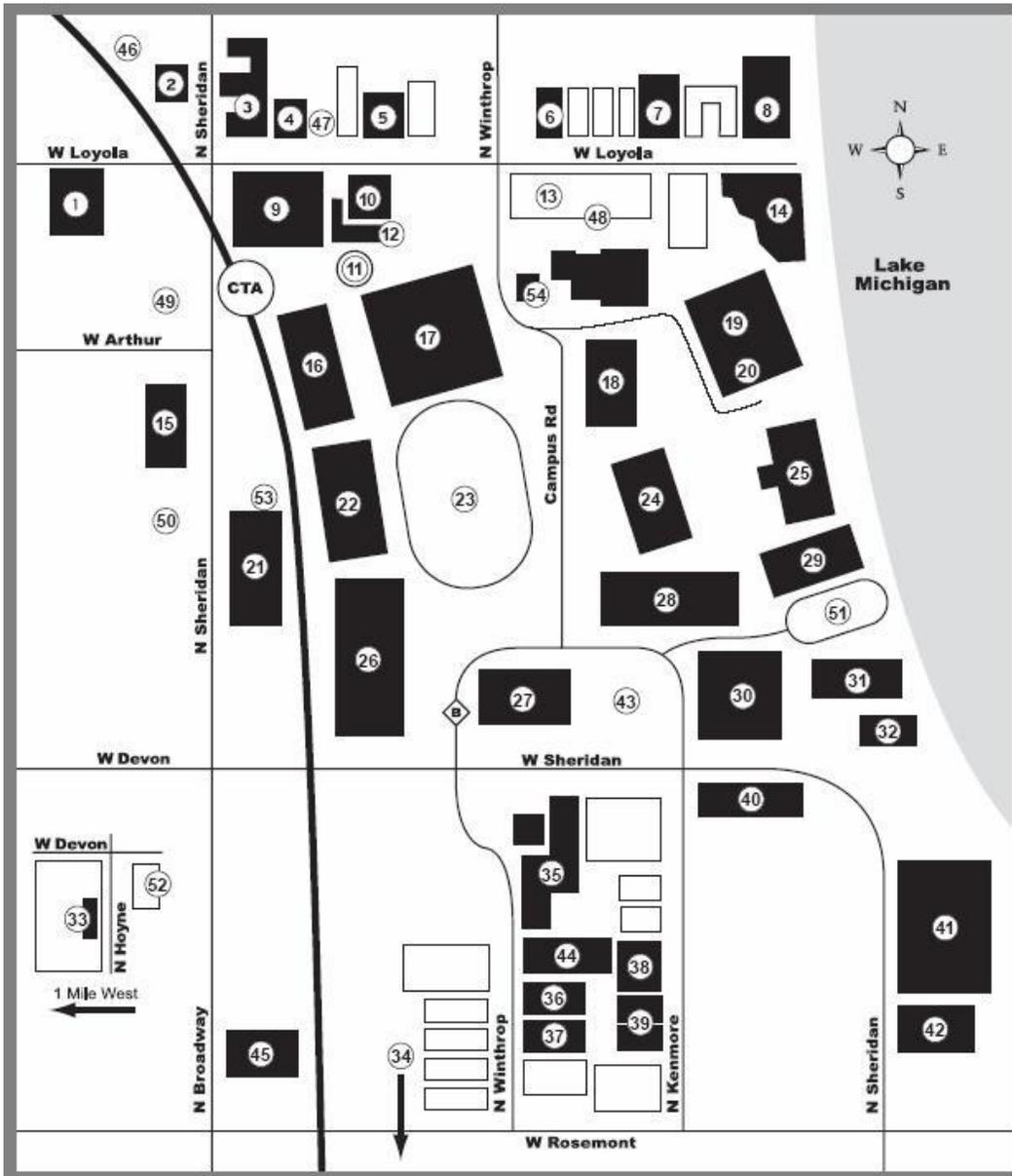
**From the North:** From north Sheridan Road: Since there will be no left turns onto W. Sheridan at rush hour, continue to Rosemont Ave. Go east (left) on Rosemont to Sheridan. Go north on Sheridan until you reach the bend on Sheridan. After the bend is a stoplight. Turn right on Campus Drive and continue to the high rise parking structure (Bldg 26 on the map).

**From the Edens:** Exit Edens Expressway at Touhy going east. Take Touhy to Sheridan Road and turn right (south) on Sheridan. Continue to Rosemont Ave. Go east (left) on Rosemont to Sheridan. Go north on Sheridan until you reach the bend on Sheridan. After the bend is a stoplight. Turn right on Campus Drive and continue to the high rise parking structure (Bldg 26 on the map).

**From downtown or south:** Take Lake Shore Drive (LSD) to Hollywood (as far as it goes) and turn right onto Sheridan Road. Continue until you reach the bend in Sheridan. After the bend is a stoplight. Turn right onto Campus Drive and continue to the high rise parking structure (Bldg 26 on the map).

**Via El trains:** Take the Red Line north to the Loyola Stop (near the end of the line, right after Granville). This is marked CTA on the map. Cross Sheridan Road onto the campus (by building 16 on the map). Go straight to Campus Road and look for Cudahy Science (Physics Building), the one with the green dome on top (Bldg. 24 on the map).

**Cudahy Science** (Physics Building) is the one with the copper dome on top (Bldg. 24 on the map). We will meet in room 202. Signs will be posted.



**LOYOLA UNIVERSITY CHICAGO**

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