**Topic:** Newton's second law- Marshmallow tubes lab

**Objectives**:

1. Students will demonstrate how Newton's second law can be applied by completing Marshmallow tubes lab.
2. Students will state Newton's second law of motion
3. Students will make predictions, record data and make conclusions based on the data they collect during the lab.
4. Students will compare and contrast their predictions to actual results from the lab.

**Materials:**

- Whiteboard
- Dry erase marker and dry marker eraser
- Saran wrap
- Rubber bands
- Scissors
- Tape measures
- Group rules poster
- Group jobs poster and handout
- Pom poms (instead of marshmallows)

**Flow of lesson:**

1. Review homework. Make sure students' questions are answered and discussed with class.
2. Show Students the Group Rules poster. Discuss with students how the items listed are important when doing group work. Then show the group jobs poster. Divide the students

into groups of 3 (may need to make a group of 4 depending on attendance). Give out group job handout to each group and have them decide who will be doing each job. (Assist them in this task if needed).

3. Hand out to data sheet to each student. Make sure they put their name and make predictions in the prediction column.
4. Demonstrate the setup that the students will be using. Remind students to change the saran wrap when changing people who want to be the Blower of the pom pom.
5. Call 1 student from each group to come up and get the supplies from the teacher for their group. Make sure each group has their own space large enough to conduct the lab experiment.
6. If students are able to finish gathering all the data for the lab, give them time to calculate the average of length the pom pom went in each set up in the lab. Provide calculators for students to borrow.
7. If students, run out of time, continue lab for part of next class session.