

## **Rock-it Science Observations For Winter Lessons 2010**

### **Sumo-Bots (Older Groups)**

Students tested their motors and switches and modified the machine so that it could push another Sumo-bot out of the ring.

They may have noticed:

- They had only two switches to control their platforms
- Both switches one way made both wheels go the same way
- One switch forward and one back made the platform turn in circles
- If switches forward = platform backward, they could turn the controller around to fix it
- Sometimes there was no easy way to get the right switch to control the right wheel
- The wheels easily lost grip on the mat
- Rubber on the wheels created more friction
- More weight on the platform created more friction
- Less voltage made the wheels turn slower and more voltage was faster
- A large flat shield on front was better than nothing.
- A large low shovel could lift the opponent right off the mat.
- A flexible shield could flip the opponent over.
- Attacks from the side usually ended up going in circles and tangled wires