Physics Home Learning Plan for March 30th – April 3rd

Goals (for this week and next):

1. Conduct an experiment about spring force, elastic potential energy, and conservation of energy
2. Engage with/practice/demonstrate the skill of Technology by developing and executing an experiment at home (part 1 of the portfolio eligible Technology assessment is this week, part 2 is next week)

Tasks for the week: (students are STRONGLY encouraged to spread the work out as it's laid out in the table below, both for the sense of having a routine for the week and so as to keep the workload manageable and make sure they're being careful and documenting well)

All week	• Perform tests on THREE spring-like things (a rubber band, a spring (ideally, but not essential), and one other things (or two, if you don't have a spring)) to determine their spring coefficients and which is the most spring-like • The OneNote page for this week in the students' sections lay all of this out and provide an organizational structure for documenting the work (with pictures and/or digital work) • Reach out to Mission Control (JohnBo) as needed • If you haven't yet and you have the time and are able to, watch Apollo 13 or (and?!) the Martian to get some inspiration for making do with what you have!

Monday	1. Introduction to this week and the Technology assessment
	  • Option 1: "come to class" in Teams at 2:00 PM
	  • Option 2: CLICK HERE to watch a video of me explaining the assessment
	  • Option 3: Read about the Assessment in OneNote
	2. Complete a form with questions about the launching of the experiment
	3. Figure out what you'll use for masses to test your THREE spring-like things
	  • Need to be able to apply at least 5 different masses, ideally in equal increments.
	  • Largest mass should stretch each spring-like thing significantly (yet not too much).
	  • Could be different masses for different spring-like things.
	4. Document in OneNote

Tuesday	1. Figure out the setup and procedure you'll use to collect your data (force applied on spring and distance stretched). How will you make sure your results are as reliable as possible? 2. Document in OneNote what you chose as a final setup and procedure and why you chose it
Wednesday	Self-directed learning!
Thursday	1. Collect your data (force applied on spring and distance stretched for each of the three spring-like things you're testing). 2. Document your testing with pictures in OneNote 3. Analyze your data. (There will be a video and a document available explaining this.) 4. Document your analysis in OneNote (pictures or digital work)
Friday	1. Make sure your work is fully documented in OneNote 2. Based on your data, choose which of your spring-like things behaves most like a spring (the one that has the most linear force vs. stretch graph). Explain your choice in OneNote 3. If you're available and interested, "come to class" at 2 PM to discuss/debrief how the experimenting went

All links and resources are posted in the class notebook, which students have been using all semester.

Student access to class notebook: CLICK HERE (Web view) to get to the overview page for the Home Learning weeks.

Parent access to class notebook: CLICK HERE. Once the notebook opens, select the "Home Learning" section on left.

Schedule time to talk with JohnBo: CLICK HERE (select my name from the list of teachers who are using this method).