

Physics Syllabus for 9/21/2020 - 10/2/2020 (Units 0-A and 0-B - Graphing by hand and with a graphing program & Scientific Reasoning and Lab Skills)

Unit standards:

Lab Skills and Scientific Reasoning 1 - I can design and carry out experiments or online simulations based on the task at hand using a working hypothesis and selecting appropriate lab equipment or online tools and technology along with using those tools correctly. I'll maximize the amount and range of data collected within the time allowed and available materials. I can also communicate and represent the details of an experimental procedure clearly and completely using words, graphs, equations, and/or diagrams.

Lab Skills and Scientific Reasoning 3 - I can analyze data, and lab or online simulation results appropriately and analyze the information clearly and completely. I can make a claim about the data or results and support the claim with data, evidence and reasoning that support the correct physical model in the situation. I can compare and analyze how an online simulation might be different than a similar hands-on lab activity and discuss what challenges there are with each format.

Lab Skills and Scientific Reasoning 4 - I can identify patterns in data and represent the data mathematically and graphically, along with providing physical meaning to the slope, y-intercept, and area where appropriate. When making a graph, I can place variables correctly, label axes, and follow other graphing norms to show a possible relationship between two variables.

Lab Skills and Scientific Reasoning 5 - I can use a graphing program such as Graphical Analysis, Logger Pro, or Excel to correctly plot data. I can choose a correct graphical relationship and write the mathematical model for the relationship, if any, that's shown. If necessary I can linearize a graph to better show the relationship.

- **Virtual assignments (M, T or Th, F) → Due dates noted in syllabus below**
- **In person assignments → Due dates may vary based on cohort**
- **Wednesday virtual assignments → Should be completed on Wednesday if possible**
- **Wednesday office hour from 2-3 PM via Google Meet**

All assignments with digital documents will also be posted in Google Classroom

Daily schedule	Cohort A	Cohort B
Monday, 9/21	<p>In person - Questions about Graphical Analysis or Graphing?</p> <p>Rules of whiteboard and presenting data</p> <p>Process and share rebound lab results and compare whiteboard sketches (Is this the same model?) → complete the analysis for the start of class on Tuesday, when labs will be collected</p>	<p>Virtual - Proportional Reasoning Practice - use the documents (metric overview and Graphical Methods Summary) with the assignment to complete your work by Sunday, 9/27 at 11:59 PM</p>
Tuesday, 9/22	<p>In person - Collect rebound labs</p> <p>Cheers to Rates of Change data collection</p> <p>Cheers to Rates of Change whiteboard data</p>	<p>Virtual - Graphing slopes and equations practice handout. If you didn't turn in the Graphical Analysis work on time last week, turning this assignment in on time is PART of what you can do to make that up. This will be due Sunday, 9/17 at 11:59 PM</p>
Wednesday, 9/23	<p>Virtual - Watch How to Spot a Misleading Graph video and answer the EdPuzzle questions</p> <p>Good Graph, Bad Graph (What, if anything, is wrong with this graph?). Submit the Google Doc by tonight at 11:59 PM</p>	<p>Virtual - Watch How to Spot a Misleading Graph video and answer the EdPuzzle questions</p> <p>Good Graph, Bad Graph (What, if anything, is wrong with this graph?). Submit the Google Doc by tonight at 11:59 PM</p>
Thursday, 9/24	<p>Virtual - Proportional Reasoning Practice - use the documents (metric overview and Graphical Methods Summary) with the assignment to</p>	<p>In person - Questions about Graphical Analysis or Graphing?</p>

	complete your work by Sunday, 9/27 at 11:59 PM	Rules of whiteboard and presenting data Process and share rebound lab results and compare whiteboard sketches (Is this the same model?) → complete the analysis for the start of class on Tuesday, when labs will be collected
Friday, 9/24	Virtual - Graphing slopes and equations practice handout. If you didn't turn in the Graphical Analysis work on time last week, turning this assignment in on time is PART of what you can do to make that up. This will be due Sunday, 9/17 at 11:59 PM	In person - Collect rebound labs Cheers to Rates of Change data collection Cheers to Rates of Change whiteboard data

Daily schedule	Cohort A	Cohort B
Monday, 9/28	In person - Cheers to Rates of Change Q & A with groups Cheers lab picking glasses from the other class	Virtual - <i>Physics Classroom</i> Concept Builder "Which One Doesn't Belong?" - complete the Master Level for 6 points, the Wizard Level for 8 points, and both levels for 10 points by Friday, 10/2 at 11:59 PM
Tuesday, 9/29	In person - Graphing/Lab Skills Quiz in class Turn in Cheers to Rates of Change Lab Trigonometry refresher Introduction to Pivot Interactives Hand out trigonometry review	Virtual - Pivot Interactives Pendulum Lab data collection and questions
Wednesday, 9/30	Virtual - Read Lesson 1, parts A, B, C, from <u>Vectors: Fundamentals and Operations in <i>The Physics Classroom</i></u> and complete the Google Form reading quiz by 11:59 PM tonight (late submissions will not be counted) <i>Physics Classroom</i> Concept Builder "Which One Doesn't Belong?" - complete the Master Level for 6 points, the Wizard Level for 8 points, and both levels for 10 points by Friday, 10/2 at 11:59 PM	Virtual - Read Lesson 1, parts A, B, C, from <u>Vectors: Fundamentals and Operations in <i>The Physics Classroom</i></u> and complete the Google Form reading quiz by 11:59 PM tonight (late submissions will not be counted)
Thursday, 10/1	Virtual - Pivot Interactives Pendulum Lab data collection and questions	In person - Cheers to Rates of Change Q & A with groups Cheers lab picking glasses from the other class
Friday, 10/2	Virtual - Complete Trigonometry review and vector practice Parts A and B for the start of class on Monday, October 5.	In person - Graphing/Lab Skills Quiz in class Turn in Cheers to Rates of Change Lab

		Trigonometry refresher Introduction to Pivot Interactives Hand out trigonometry review
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