

*** Please note for detailed ideas for what to do for each lesson, find the document with the same topic name. So for example on the building models day, check the folder for the models doc!

Building Skills Pre-Cycle: Laying the framework for the course				
Concept	Topic/Notes/ Slides	Key Ideas/Takeaways	Check Your Understanding!	Videos, Simulations, Resources, Etc
1	Welcome to Physics! ● Getting used to the collaborative environment ● Solving problems and making assumptions	Physics class may not be your normal class because it's designed to make you think! This course will also require you to take the lead on your learning. To record that we use a portfolio! Make a copy of this one and share it with McP!	Please complete the first slides about you in your portfolio!	
2	Building Models ● Models are fun! ● Intro to Desmos ● Models in Space!	Science is based on building models based on what we know, and as we learn more, the models adapt and change! Q) Think of a model you have been shown (in any class) that was used to explain how something works that you later learned was wrong or a simplified version. Explain what happened to cause the change in the model. <i>Feedback Focus: Connect 4 (Connect to the past)</i>	If you are worried about your math skills or want a glimpse of what tools you might need to make your models in physics, click here for some practice! Please note, do NOT do all the questions that are here!	Watch: Crash Course Units and Conversions Accelerating universe
3	Groups Work! ● What makes a good group member? ● Setting Group Norms for our classroom	The goal is to make your group members shine while also shining yourself (the best leaders are people who can share the spotlight and recognize there is room for everyone to be successful). <i>Feedback Focus: Connect 1 (Think Critically)</i>	Building on our work on groups, try some practice here !	
4	Bias in Science ● What makes a good source of information? ● Looking at a topic from all the angles	The internet now has the world at our fingers but with so many voices it's hard to find who we should actually be listening to! <i>Feedback Focus: Connect 3 (Finding Bias in Data)</i>	We have learned a lot about how we carry ourselves, now it's time to set some goals for the course! Click here to help you plan for success!	Watch: Why I do what I do
5	Precision vs Accuracy ● Carbon Paper Lab activity	How we collect data is so important! When we do labs and activities, make sure you think about how you can collect data in the best way given the limitations of the classroom. <i>Feedback Focus: Connect 2 (Finding Trends & Patterns)</i>	Let's do some thinking and try some practice here !	Watch: Accuracy vs Precision by... Ted Ed Chemistry Tutor
6	The power of a good gut check! ● Estimating is a good idea ● Intro to Fermi problems	You cannot blindly trust your calculator... what makes a great scientist is someone who looks at the answer or solution and says "huh". This entire course is designed to help calibrate your "gut" instinct or intuition. :D <i>Feedback Focus: Communication 4 (Solution Organization)</i>	Say your calculator says you are walking at 25m/s.... Does this make sense? Explain why or why not?	Watch: What are Fermi Problems? Where are all the Aliens? The first Fermi Problem... Play: Estimation Concept Builder
7	Graphing Skills ● How do we collect and organize data in science? ● How much data is the right amount of data?	Graphs are an important tool when we want to pull our data together and see if there are any relationships <i>Feedback Focus: Communication 1 (Compile & Organize Data)</i>	Some practice options for you!	Watch: McP's Video on how to navigate Google sheets A beginner's guide to graphing data Graphing by hand How to make a proper graph in physics Read: How to graph article

