Week of March 27, 2023

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
OBJECTIVES & STANDARDS	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**
	UM.1 recognize the difference between vector and scalar quantities, treating velocity as a vector distinguishing between magnitude and direction UM.2 describe relationships between distance, time, and speed	UM.1 recognize the difference between vector and scalar quantities, treating velocity as a vector distinguishing between magnitude and direction UM.2 describe relationships between distance, time, and speed	UM.3 write the linear formula for a position vs time graph of constant velocity motion, identifying the meaning of the slope and y-intercept	UM.3 write the linear formula for a position vs time graph of constant velocity motion, identifying the meaning of the slope and y-intercept
NOTES	**NOTES**	**NOTES**	**NOTES**	**NOTES**
NO SCHOOL	Pull out lab books Set up lab 1 - cars, tubes, ring stands, tape			
PLANS	**PLANS**	**PLANS**	**PLANS**	**PLANS**
❏	❏ Seating chart, lab books ❏ Google Site - syllabus,expectations & daily lesson plans online ❏ Bucket Problem - standing whiteboard ❏ Dimensional Analysis	❏ Discuss CYU with group ❏ Discuss the motion of objects ❏ Vocabulary: speed, velocity, scalar vs. vector, constant vs. instantaneous vs. average ❏ What does it mean to have negative velocity? Constant velocity? ❏ Differentiated lab 1 ❏ Students use time with partner to process through the procedure for part A ❏	❏ Check lab 1 write up ❏ Students make measurements for Part A of lab 1	❏ Sign write up for Part B ❏ Students make measurements for Part B of lab 1 ❏ Use time for analysis & conclusion
HOMEWORK	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**
	CYU - Unit Multipliers 1 Download Graphical Analysis for Friday	Lab 1 write up for lab 1 part A Link for lab 1 A Link for lab 1 B	Analysis & conclusion for part A Write up for part B Download Graphical Analysis	Analysis & conclusion for part B Download Graphical Analysis
REFLECTION/NOTES	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**

Week of April 3, 2023

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
OBJECTIVES & STANDARDS	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**
UM.7 interpret/draw the position vs. time graph for objects moving with constant, increasing, and decreasing velocity **UM.8 interpret/draw the velocity vs. time graph for an object moving with changing velocity**	**UM.4 identify the slope of the tangent to a point on a position vs time graph as the instantaneous velocity of the object**	**UM.6 interpret/draw motion maps for objects moving with constant, increasing, and decreasing velocity**		
NOTES	**NOTES**	**NOTES**	**NOTES**	**NOTES**
			½ day	**NO SCHOOL**
PLANS	**PLANS**	**PLANS**	**PLANS**	**PLANS**
❑ Students perform Part C - graphs in graphing calculator (or Desmos) and Graphical Analysis ❑ Turn in lab book? ❑	❑ "Who am I?" presentations ❑ Lab 1 whiteboard - 1st screen ❑ Uniform motion wkst (bicyclist) ❑	❑ Lab 2 Uniform Motion Graphs - both parts ❑ Check answers to both parts as a class ❑ Work time to work on analysis & conclusion?	❑ Discuss tangent lines ❑ Dimensional Analysis Quiz ❑ Work time to work on homework?	❑
HOMEWORK	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**
CYU - Unit Multipliers with Dimensional Analysis (pg 2)		Lab 2 analysis & conclusion	Complete lab 2 conclusion & extension	
REFLECTION/NOTES	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**
3rd hr in library, 4th hr in room 216	How to draw a tangent line video Calculating instantaneous velocity from position vs time graph video Take notes / watch video on motion maps Motion maps worksheet	❑ Lab 1 lab practical - measure accurate speed of buggy	❑ Lab 1 lab practical - find where buggies will meet	

Week of April 10, 2023

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
OBJECTIVES & STANDARDS	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**
	UM.6 interpret/draw motion maps for objects moving with constant, increasing, and decreasing velocity	**UM.5 know the difference between position, distance, and displacement**		**N1.8 make calculations using the equation d = vt**
NOTES	**NOTES**	**NOTES**	**NOTES**	**NOTES**
NO SCHOOL EASTER MONDAY				
PLANS	**PLANS**	**PLANS**	**PLANS**	**PLANS**
❑	❑ Turn in lab 2 ❑ x vs t and v vs t graph practice wkst ❑ Discuss motion maps in partners with dots & cars in back ❑ Motion map practice wkst ❑ ❑ Lab 2 whiteboard - physics classroom "Match the Graph"	❑ Concept check ❑ Motion Graph Scavenger Hunt questions ❑ Go through answers to CYU - Motion Graphs ❑ Lab 1 & 2 Motion Graphs Quiz - position graphs and velocity graphs ~40 min	❑ Go through answers to Multiple Representations of Motion ❑ Discuss distance vs. displacement as a group (use notes in ezwrite) ❑ Discuss average speed and velocity with number line wkst as a class ❑ Learn from mistakes on Dimensional Analysis quiz	❑ Finding distance & displacement on x vs t graph ❑ Concept check (4 situations) for all types of graphs ❑ Speed & velocity calculations in groups on whiteboards - 6 questions ❑
HOMEWORK	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**
	Lab 1 & 2 Quiz tomorrow CYU - motion graphs (x vs t and motion maps)	Multiple Representations of motion wkst		CYU - average speed & velocity from number line and motion problems
REFLECTION/NOTES	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**
	Draw Fred's graph ❑ Discuss ways to perform lab practical ❑ Distance & Displacement notes from video - be prepared to use in class ❑ Motion Map notes	❑ **UM.10 distinguish between and be able to calculate average speed, average velocity and instantaneous velocity** ❑ Check Fred's graph ❑ Calculate distance & displacement on Fred's graph ❑ Draw Kate's graph ❑ Kate's graph calculations ❑	❑ Average speed & velocity practice graph	❑ Discuss lab corrections ❑ Multiple Representation Graph matching card sort

Week of April 17, 2023

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
OBJECTIVES & STANDARDS	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**
All Uniform Motion objectives	**All Uniform Motion objectives**	**N1.7 identify and apply standard contact forces to a free body diagram: weight, normal, friction, applied, tension**	**N1.2 draw a properly labeled free body diagram showing all forces acting on an object including magnitude and direction** **N1.3 tell whether the forces are balanced or unbalanced for an object based on its motion** **N1.4 Calculate net force for different situations**	
NOTES	**NOTES**	**NOTES**	**NOTES**	**NOTES**
				NO CLASSES ALL SCHOOL RETREAT
PLANS	**PLANS**	**PLANS**	**PLANS**	**PLANS**
❑ Learn from mistakes on lab quiz ❑ Uniform motion test review wksts with partner ❑	❑ Uniform Motion Test ❑ ❑	❑ Discuss Force ❑ Bowling ball activity ❑ ❑ Dimensional Analysis Test - last 30 minutes	❑ Discuss Balanced and Unbalanced forces using results from bowling ball (include what would happen on a carpet) ❑	❑
HOMEWORK	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**
			FBD practice wkst Lab 3 write up due Tuesday	
REFLECTION/NOTES	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**
A few students took the whole class period Frame of Reference video Frame of Reference Khan Academy	❑ "Black Excellence in Science" Activity - day 1 ranking scientists	❑ Frame of reference Frame of Reference wkst Fill in Physics bracket Fill in Chemistry bracket	❑ Go through answers to frame of reference hmwk wkst ❑ Frames of Reference concept check	

Week of April 24, 2023

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
OBJECTIVES & STANDARDS	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**
N1.2 draw a properly labeled free body diagram showing all forces acting on an object including magnitude and direction **N1.3 tell whether the forces are balanced or unbalanced for an object based on its motion** **N1.4 Calculate net force for different situations**	**N1.4 Calculate net force for different situations** **N1.5 use Newton's 1st law to quantitatively determine the forces acting on an object moving at a constant velocity**	**N1.6 recognize/apply Newton's 1st law to different situations and relate it to the terms equilibrium and inertia**	**N1.6 recognize/apply Newton's 1st law to different situations and relate it to the terms equilibrium and inertia**	**N1.6 recognize/apply Newton's 1st law to different situations and relate it to the terms equilibrium and inertia**
NOTES	**NOTES**	**NOTES**	**NOTES**	**NOTES**
BLUE & WHITE WEEK				Missing band students 3rd hr which is most of the class
PLANS	**PLANS**	**PLANS**	**PLANS**	**PLANS**
❑ Notes - draw FBD for box & Santa, net force & equilibrium rule ❑ Go through answers to FBD practice wkst ❑ Forces activity in google classroom with partner ❑	❑ Concept check - FBD ❑ Finish Forces activity in google classroom with partner ❑ Discuss Newton's 1st law & practice with seatbelt question ❑ Newton's 1st law lab	❑ Newton's 1st law lab	❑ Newton's 1st law lab ❑ Go through answers to lab experiments with last 20 min	❑ Turn in lab book ❑ Go through FBD wkst answers ❑ Balanced vs unbalanced forces concept builder wizard level ❑ Force & Motion concept builder both vertical and horizontal motions ❑ Match that FBD wizard level ❑ Learn from mistakes on Uniform Motion Test
HOMEWORK	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**
	Free body diagram wkst		Make sure lab experiments are complete Prepare for 1st law quiz Watch video(s) to check your results and for experiments you were unable to complete in class and finish explanations.	
REFLECTION/NOTES	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**
Fill in Biology bracket Fill in Research bracket				

Week of May 1, 2023

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
OBJECTIVES & STANDARDS	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**
				N2.10 identify Newton's 3rd law situations and the action-reaction force pairs involved
NOTES	**NOTES**	**NOTES**	**NOTES**	**NOTES**
NO SCHOOL TEACHER INSERVICE				
PLANS	**PLANS**	**PLANS**	**PLANS**	**PLANS**
❑ ❑	❑ Hand back lab book ❑ Concept check with coat ❑ Lab 3 Quiz (picture)- 40 minutes ❑ ❑ Equilibrium wkst (pictures) ❑ Go through Equilibrium wkst (pictures)	❑ Concept check - balanced & unbalanced forces ❑ Go through answers to FBD extra practice ❑ Discuss Ch. 2 review questions on whiteboards ❑ Go through answers to lab quiz	❑ Test - balanced & unbalanced forces, free body diagrams, Newton's 1st law	❑ Discuss Newton's 3rd law with activity, demos & videos ❑
HOMEWORK	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**
	FBD extra practice	Prepare for test tomorrow - forces & 1st law		
REFLECTION/NOTES	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**
				Watch 3rd law video to review ❑ Collect data from spinner 1, 2, & 3 videos ; make x vs t graphs in graphical analysis for all 3 sets of data; put in quadratic curve, turn on tangent lines to find velocities at different positions, construct v vs t graphs

Week of May 8, 2023

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
OBJECTIVES & STANDARDS	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**
	N2.2 identify when the forces must be unbalanced for an object based on its motion **N2.4 draw a force diagram for an object experiencing a net force not equal to zero**	**N2.3 use Newton's 2nd law to determine the forces acting on an object moving at a constant acceleration**	**N2.1 explain the relationships between acceleration, force and mass**	**N2.1 explain the relationships between acceleration, force and mass**
NOTES	**NOTES**	**NOTES**	**NOTES**	**NOTES**
		SUB		
PLANS	**PLANS**	**PLANS**	**PLANS**	**PLANS**
❑ Concept checks with 3rd law ❑ Analyze acceleration with motion maps on adding machine tape with meter stick and seating group - use toy cars as props to see net force and positive vs negative acceleration ❑ Discuss concept of acceleration as a class - determining acceleration pictures ppt (slides 1-6) on whiteboard	❑ Use slide #8 - 11 to graph x vs. t, v vs. t, & a vs. t on whiteboard ❑ Slide #7 - "What does acceleration mean?" ❑ Slide #12 - relationship between force, mass and acceleration ❑ Discuss lab 4 setup as a class - slide 9 ❑ Students set up lab and try it ❑ Learn from mistakes on test	❑ Complete Lab 4 write up for both parts ❑ Write up for Lab 4 part A ❑ Write up for Lab 4 part B	❑ Discuss how to collect data and manipulate the graphs - students collect data and manipulate graphs together ❑ Review lab setup & variables ❑ Collect data for lab 3 part A	❑ Collect data for 2nd part of Lab 4
HOMEWORK	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**
	Accelerated Motion practice wkst			3 graphs: Acceleration vs Force, Acceleration vs Mass, Acceleration vs I/Mass
REFLECTION/NOTES	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**
Rocket sled	❑ Spinner graphs - discuss results (examples on desktop, intro to physics file) ❑ Compare 6 spinners video	❑ Whiteboard method, procedure and data table(s) with partner	❑ Whiteboard method, procedure and data table(s) with partner for 2nd part of lab	

Week of May 15, 2023

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
OBJECTIVES & STANDARDS	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**
N2.5 make calculations for acceleration based on a force diagram **N2.6 apply Newton's 2nd law wording to different situations**	**N2.9 identify Newton's 2nd law situations and use it to solve problems**		**N2.8 distinguish between weight and mass** **N2.7 describe forces on an object falling in freefall and with air resistance**	
NOTES	**NOTES**	**NOTES**	**NOTES**	**NOTES**
OUT ALL WEEK				
PLANS	**PLANS**	**PLANS**	**PLANS**	**PLANS**
❑	❑ ❑	❑ ❑	❑ What is gravity? Discussing gravity, mass vs. weight (group wkst slides 1 & 2) ❑	❑ Lab 5 Relationship between Gravitational Force & Mass
HOMEWORK	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**
		❑		
REFLECTION/NOTES	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**
	Acceleration calculations practice problem wkst #1-9 → show work in notes	❑ Go through answers to acceleration wkst ❑ Learn from mistakes on lab quiz ❑ 3rd law review questions (from notes) with seating group on whiteboard & go through as a class		

Week of May 22, 2023

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
OBJECTIVES & STANDARDS	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**
N2.7 describe forces on an object falling in freefall and with air resistance	**N2.9 identify Newton's 2nd law situations and use it to solve problems**			**P.3 explain why things float using Archimedes' Principle** **P.4 apply Archimedes' principle to different floating and sinking situations**
NOTES	**NOTES**	**NOTES**	**NOTES**	**NOTES**
	Mass			
PLANS	**PLANS**	**PLANS**	**PLANS**	**PLANS**
❑ Lab 3 whiteboarding with partner ❑ Practice writing 2nd law explanations ❑ ❑ Calculating % error on graphs - do as a class ❑	❑ Calculate the acceleration of the box ❑ v vs. t graph wkst as a class ❑ ❑ Discuss mass vs weight ❑ ❑	❑ Discuss Free Fall & falling with air resistance - terminal velocity ❑ Lab 3 quiz - last 30 min	❑ Learn from mistakes on lab quiz ❑ Go through answers to acceleration wkst ❑ Go through answers to 3rd law practice wkst ❑ 2nd law practice questions - slides 7 - 9	❑ Newton's 2nd and 3rd law test ❑
HOMEWORK	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**
	Acceleration calculations wkst # 1-9	Acceleration calculations wkst # 10-17	Prepare for Newton's 2nd & 3rd law test	
REFLECTION/NOTES	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**
Acceleration calculations practice problem wkst #10-17 → show work in notes	❑ Discuss answers to acceleration calculations practice ❑ Concept checks for free fall and falling with air resistance ❑ Terminal velocity wkst	❑ Chapter 3 review question whiteboard discussion ❑ Time for students to prepare for test & ask questions		

Week of May 29, 2023

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
OBJECTIVES & STANDARDS	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**	**OBJECTIVES & STANDARDS**
	P.3 explain why things float using Archimedes' Principle **P.4 apply Archimedes' principle to different floating and sinking situations**	**P.3 explain why things float using Archimedes' Principle** **P.4 apply Archimedes' principle to different floating and sinking situations**		
NOTES	**NOTES**	**NOTES**	**NOTES**	**NOTES**
NO SCHOOL			½ day Exams	½ day Exams
PLANS	**PLANS**	**PLANS**	**PLANS**	**PLANS**
❑	❑ Discuss Buoyancy ❑ Learn from mistakes on test? ❑ Buoyancy lab - measurements in lab	❑ Buoyancy lab - simulations & conclusion questions	❑	❑ Cumulative multiple choice exam including pressure topics, free response will be pressure topics only
HOMEWORK	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**	**HOMEWORK**
REFLECTION/NOTES	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**	**REFLECTION/NOTES**
P.1 describe the relationships between force, area and pressure **P.2 recognize high & low pressures and apply the concept of pressure to real life situations**	**P.1 describe the relationships between force, area and pressure** **P.2 recognize high & low pressures and apply the concept of pressure to real life situations** **P.5 explain pressure differences using Bernoulli's Principle**	❑ Lab 6 whiteboarding ❑ Discuss pressure? ❑ Pressure notes - definition, bed of nails, air pressure changes as we go up an airplane and down under water, air pressure demo	❑ Notes - barameter, how straw works, cover top of straw, coffee mug, etc ❑ Pressure demos from notes list ❑ Bernoulli's principle - start with cup of water and straws in lab area, put up wording - students apply; demos from notes	