

Second Quarter, 2020-2021					
S U N	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
	11/2	11/3	11/4	11/5	11/6
	CLASS: 1.)	CLASS: 1.)	FLEX DAY	Day 3	CLASS: 1.)
	HMWK: 1.)	HMWK: 1.)			HMWK: 1.)
	11/9	11/10	11/11	11/12	11/13
	Day 5	CLASS: 1.)	FLEX DAY	CLASS: 1.)	CLASS: 1.)
		HMWK: 1.)		HMWK: 1.)	HMWK: 1.)
	11/16	11/17	11/18	11/19	11/20
	Day 3	CLASS: 1.)	FLEX DAY	Day 5	CLASS: 1.)
		HMWK: 1.)			HMWK: 1.)
	11/23	11/24	11/25	11/26	11/27
	CLASS: 1.)	CLASS: 1.)	THANKSGIVING	THANKSGIVING	THANKSGIVING
	HMWK: 1.)	HMWK: 1.)			
	11/30	12/1	12/2	12/3	12/4
	Day 3	CLASS: 1.)	FLEX DAY	Day 5	CLASS: 1.)
		HMWK: 1.)			HMWK: 1.)
	12/7	12/8	12/9	12/10	12/11
	CLASS: 1.)	CLASS: 1.)	FLEX DAY	Day 3	CLASS: 1.)
	HMWK: 1.)	HMWK: 1.)			HMWK: 1.)
	12/14	12/15	12/16	12/17	12/18
	Day 5	Block Day	Block Day	Block Day	Block Day
	12/21	12/22	12/23	12/24	12/25
	Winter Break (SNOW?)	Winter Break (SNOW?)	Winter Break (SNOW?)	Winter Break (SNOW?)	Winter Break (SNOW?)
	12/28	12/29	12/30	12/31	1/1
	Winter Break (SNOW?)	Winter Break (SNOW?)	Winter Break (SNOW?)	Winter Break (SNOW?)	Winter Break (SNOW?)
	1/4	1/5	1/6	1/7	1/8
	Day 3	CLASS: 1.)	FLEX DAY	Day 5	CLASS: 1.)
		HMWK: 1.)			HMWK: 1.)
	1/11	1/12	1/13	1/14	1/15

<p>CLASS:</p> <p>1.) Part 1 of The Elegant Universe starts at 3:30 is you use the first entry shown on Friday's calendar;</p> <p>2.)</p>	<p>CLASS:</p> <p>1.) You should by now have a copy of <u>13 Things That Don't Make Sense</u>;</p> <p>2.) class Website is at faculty.polytechnic.org/physics and clicking on Cosmology, Astornomy and Relativity in the left-hand column;</p> <p>3.) if you find a URL on this pdf and it spans only one line, the link will be active and going to the page will only require a click; if the link spans more than one line, you will have to copy and paste the link into a browser to go to the site (this bit of weirdness seems to be the case in general with pdfs made from Excel files);</p> <p>4.) Be aware that we are going to try to do more each day than the calendar suggests, so the calendar will change pretty continuously to reflect the updates. Also, assignments will be put on MyPoly and turned in material will go to Google Classroom</p>	<p>FLEX DAY</p>	<p>HMWK:</p>	<p>(Second Semester begins)</p> <p>CLASS:</p> <p>1.) intro the course:include motivation behind the course; present class Web site; talk about journal (create it);</p> <p>2.) find out which AP tests each student is taking;</p> <p>3.) talk about old and new format;</p> <p>4.) use zoom to watch "relative size of you versus the universe" video-- "immensity of universe";</p> <p>5.) intricacies of atom;</p> <p>6.) start first part of "The Elegant Universe" with students watching via zoom; at 4 min mark--(we'll talk more about E/M when we talk about light) . . . (8 minute mark starts unification)--this video can be found on-line at either</p> <p>http://www.pbs.org/wgbh/nova/physics/elegant-universe.html OR</p> <p>http://www.ovguide.com/tv/the_elegant_universe.htm</p>
<p>HMWK:</p> <p>1.)</p>	<p>HMWK:</p> <p>1.)</p>	<p>FLEX DAY</p>	<p>HMWK:</p>	<p>HMWK:</p> <p>1.) Google "2019 OK" and write up what you find there;</p> <p>2.) Google "meteor crater;" let your curiosity get the better of you . . .</p> <p>3.) Go on-line to class Web page and read both "About the Books" and "Course Information."</p> <p>4.) make your first entry into your journal</p>

Third Quarter, 2020-2021					
S U N	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
	1/18	1/19	1/20	1/21	1/22
	MLK Jr Holiday	Day 5	FLEX DAY Homework:	CLASS: 0.) mention the use of word "mankind"; 1.) discuss impact of "2019 OK" and associated bits of trivia garnered; 2.) reiterate underlying focus is unification; 3.) talked about how an equation can model the world (that's what everyone is looking for)--use a spring system as an example; 4.) talk about "The Elegant Universe" to date--talk about Newton and GmM/r^2 and why he didn't like it; 5.) continue with "The Elegant Universe"--got to talking about Newton unifying heaven and earth with theory of gravity and problem with the theory (sun ceasing to exist . . .)	CLASS: 0.) clarify what the journal should be used for; 1.) got messed up and showed the middle video yesterday--started with beginning video today; 2.) as video proceeded, talked about Gmm/r^2 and Newton inventing Calculus; talked about why Einstein came up with Spec Th or Rel, complete with explanation of theory of e/m waves for light and Maxwell's equations and Newton's theory of light; 3.) "The Elegant Universe" will get to Quantum Mechanics next time with all of its weirdness--will stop the video at that point and start talking about Quantum Mechanics 4.) if you have time, show QM video with freaky guy;
				HMWK: 1.) journal; 2.) from the class Web site under "secret stuff," read "Branes and the Big Bang" (if you get a message that says the URL can't be opened without a password, it means you have JAVA turned on (which is dangerous these days) and you need to use the password "elephant". If that doesn't work, email me and I'll send you a pdf of the document--it's only 2 pages, no big deal);	HMWK: 1.) journal; 2) look at the YouTube video "Particles and waves: the central mystery of quantum mechanics" at https://www.youtube.com/watch?v=Hk3fgjHNQ2Q (note: you will have to copy this URL and paste it into Safari or Firefox or the browser of your choice); 3.) look at the video "What is the Heisenberg Uncertainty Principle" at https://www.youtube.com/watch?v=TQKLEOE9eY4
	1/25	1/26	1/27	1/28	1/29
T e s t W e k ?	CLASS: 1.) talked about wave/particle history in middle of 2nd homework video; 2.) continued with The Elegant Universe until it got to Quantum Mechanics; 3.) started QM discussion with video of double slit problem and the creepy guy; 4.) continue with QM by looking at intro <i>Looking Glass Universe</i> video (talks about double slit some): intro to QM https://www.youtube.com/watch?v=8Dso6Fv1FUw	CLASS: 1.) talk about <i>Information Theory</i> from homework reading; 2.) before showing the Born Rule video (this is really good at identifying notation), talk about idea of wave function and states and how you might denote a state and the probability that a state will happen; 3.) show The Born Rule video at https://www.youtube.com/watch?v=VHlqY44fOg0 ; 4.) reiterate about notation	FLEX DAY Homework:	CLASS: Test 1: (material to date from <i>The Elegant Universe</i> , quantum mechanics and the preamble information)	Day 5
	HMWK 5: 1.) journal; 2.) from the Secret Stuff" link on the Home Page, read "The Origin of Schrodinger's Equation--Information Theory"; 3.) Download "Synopsis of Elegant Universe" from the "class pdf's" on the class Web site and skim it . . .	HMWK 6: 1.) journal; 2.) re-skim the Synopsis of "The Elegant Universe" to date; look at summary of Quantum Mechanics; 3.) get ready for test		HMWK 8: 1.) relax	

2/1	2/2	2/3	2/4	2/5
CLASS: 1.) NTOE: the superposition rule: if an object can do any one of a number of things, it will do (in a sense) all of them at the same time; when you make a measurement, the wave function must collapse to just one state-- 2.) with that, look at the Wave Function video from LGU: https://www.youtube.com/watch?v=02eZMf17wFs&list=PLg-OiIbfPj3JrdQgqkdlPe_jxRC0mw35&index=2 2.) look at interference in QM (looked at Schrodinger's equation halfway through this video) from LGU: https://www.youtube.com/watch?v=tt8gVXDsh7Q (notice that the solution is in the chat of the video) 3.) look at Schrodinger's Equation made easy from LGU: https://www.youtube.com/watch?v=ZfKq3g3MHqE&list=RDCMUcFk__1ieXL3T5gvGcMpeHNA&index=4	CLASS: 1.) derivation of Schrodinger's Equation via LGU at https://www.youtube.com/watch?v=DEgWbrMv6-k 2.) discussion of Heisenberg's Uncertainty Principle from LGU at https://www.youtube.com/watch?v=rciVgQm-F_U&t=215s 2.) show video of laser beam spreading out as slit cuts beam off . . . " visualization of Heisenberg's Unc Prin.flv " 3.) show derivation of Sch. Equ; 4.) preamble 13 Things That Don't Make Sense articles as preamble (a discussion of alpha will come in the next section);	FLEX DAY	CLASS: 1.) talk about reading from "13" (stars at edge moving too fast--need for dark matter; 2.) continue with The Elegant Universe ; 3.) during video, talked about what strong force does (holds protons together in nucleus and weak force (creates new atoms after supernova via radioactive decay); talked about how forces in Standard Theory are assumed to be particle interactions, so String Theory is powerful as string vibrations can act like particle/forces;	Day 3
HMWK 8: 1.) journal	HMWK: 1.) journal; 2.) from 13 Things That Don't Make Sense , read pages 7-13		HMWK: 1.) journal; 2.) from 13 Things That Don't Make Sense , read pgs 13 through 18;	
2/8	2/9	2/10	2/11	2/12
CLASS: 1.) mention Mr. White's triple binary star system https://exoplanets.nasa.gov/news/1672/discovery-alert-first-six-star-system-where-all-six-stars-undergo-eclipses/ ; 2.) talk about 13 Things ; (Slipher and red-shift; Hubble graphs speed vs distance--farther out faster--universe expanding--so farther away implies higher relative speed--the prop. const is the Hubble constant; talk WIMPS and cosmic radiation (have students fid video on Bubble Chamber and Cosmic Radiation); 3.) talk about Zwicky's (spherical bastards) problem (stars at edge of galaxy moving too fast); 4.) talk about Vera Rubins fights for Zwicky's idea (answer: halo of dark matter explains high velocity); 5.) continue The Elegant ... " 6.) when you get to Euler's Equation, Google it . . .	Day 5	FLEX DAY	CLASS: 1.) talk about 13 Things ; 2.) continue with The Elegant Universe if not already done;	FACULTY PROFESSIONAL GROWTH DAY (no school)
HMWK: 1.) journal; 2.) from 13 Things That Don't Make Sense , read pgs 19-25;			HMWK: 1.) journal; 2.) get ready for next test (on Tuesday)	
2/15	2/16	2/17	2/18	2/19

<p>PRESIDENT'S DAY (no school--again, you lucky ducks)</p>	<p>CLASS: 1.) do Test/oral exam; 2.) continue with The Elegant Universe</p>	<p>FLEX DAY</p>	<p>CLASS: 1.) hopefully finish The Elegant Universe 2.) talk a little about the precision of the universe-- show video The Fine Tuning of the Universe . . . which has good info but is the religious one); 3.) leave Zoom and have students run through discussion of alpha (use PowerPoint to identify where the math comes from) at http://faculty.polytechnic.org/physics/1%20Astronomy,%20Cosmology,%20Relativity%202007to2008/2._Section%202%20(ElegUniv,%20std%20mod%20n%20cosm)/1._Summary_Sect_2--Elegant_Univ_n_q.m./alpha.pdf 4.) return and show video Alpha Changing and talk about the consequences of having fundamental constants changing in light of the previous video about the fine tuning of our universe; 5.) if time permits, introduce the Standard Model</p>	<p>Day 3</p>
	<p>HMWK: 1.) journal</p>		<p>HMWK: 1.) journal; 2.) go to the "Secret Stuff" folder on the class Website and read "Drinking Heavy Water"</p>	
2/22	2/23	2/24	2/25	2/26
<p>CLASS: 1.) we are trying to understand how the universe is built, so next up is a discussion of the Standard Model--LEAVE ZOOM and look over ppt on the Standard Model; 2.) look at video about "the beginning and progression onward" at https://www.youtube.com/watch?v=wNDGgL73ihY 3.) look at un-narrated "Chronology of the Universe" https://www.youtube.com/watch?v=DB8651JE3xo kibitz: as you go (inflation, quark asymmetry, why 1 Tev is important, quark clumping; deuterium and He nuclei formation, 50-50 point for energy/radiation distribution, the first neutral atoms and light free streaming, first generation stars, second generation stars, etc.); 4.) leave Zoom n look at preambles to Cosmological Timeline (temp/energy AND 2-sizes), then view timeline</p>	<p>Day 5</p>	<p>FLEX DAY</p>	<p>CLASS: 1.) we spent most of our time doing Monday's stuff--for today, 2.) looked at the Fundamental Particles and Forces ppt at http://faculty.polytechnic.org/physics/1%20Astronomy,%20Cosmology,%20Relativity%202007to2008/2._Section%202%20(ElegUniv,%20std%20mod%20n%20cosm)/1._Summary_Sect_2--Elegant_Univ_n_q.m./d.%20fund%20forces%20n%20particle%20s.pdf 3.) then talk about quarks, look at my ppt on quark charge at http://faculty.polytechnic.org/physics/1%20Astronomy,%20Cosmology,%20Relativity%202007to2008/3._Section%203%20(alpha,%20cosmological%20timeline)/1._Summary_Sect_3--alpha,%20timeline/charge%20of%20UP%20quark,%20DOWN%20quark.pdf (or look at ppt)</p>	<p>CLASS: 1.) had the kids read their 3 sentence science fiction stories about antimatter--very fun stuff; 2.) spend most of period doing Thursday's stuff, then did: 3.) show quarks changing colors video; 4.) in preamble to talking about the Higgs field, gave explanation of what mass is (a relative measure of a body's resistance to changing its motion, or inertia) and how that's related to graviational mass, then talked about how Higgs field replaces those ideas in the Standard Model;</p>
<p>HMWK: 1.) journal; 2.) write three-sentence science fiction story that utilizes the idea of anti-particles</p>			<p>HMWK: 1.) journal</p>	<p>HMWK: 1.) journal</p>
3/1	3/2	3/3	3/4	3/5

<p>CLASS:</p> <p>1.) filling in what wasn't done Friday, talk about the Higgs's field--show video \ https://www.youtube.com/watch?v=joTKd5j3mzk (the quaint explanation);</p> <p>2.) show the more sophisticated explanation of Higgs at https://www.youtube.com/watch?v=kixAljyfdqU</p> <p>3.) talk about how Higgs field isn't only source of mass--look at video at https://www.youtube.com/watch?v=Ztc6QPNuqls&t=4s</p> <p>4.) leave zoom and look at Inflation Lab;</p> <p>5.) come back and talk (we aren't going to do it);</p> <p>6.) leave Zoom and look at ppt on atomic interactions;</p> <p>7.) look at atomic interactions video (first 30 seconds of alpha decay at https://www.youtube.com/watch?v=gwl2lnl9ujc and all of beta decay at https://www.youtube.com/watch?v=2gK-bANOMaU);</p>	<p>Day 3</p>	<p>FLEX DAY</p>	<p>CLASS:</p> <p>1.)</p> <p>2.) begin to look at light as a particle: leave zoom and read pags 115-117 on the Photoelectric Effect out of Fletch's Ch4, Physics text, Light As A Particle; http://faculty.polytechnic.org/physics/1%20Astronomy,%20Cosmology,%20Relativity%202007to2008/5._Section_5_(light_as_a_particle)/3._pdf's_and_supplementary_reading/Ch%2004-Phys--Light%20part.pdf</p> <p>3.) come back and discuss;</p> <p>4.) look at video on photoelectric effect at https://www.youtube.com/watch?v=MFPKwu5vugg</p> <p>5.) photoelectric demo at https://www.youtube.com/watch?v=v-1zjdUTu0o</p> <p>6.) leave zoom and read about light produced by atoms (pgs 117-124 in Fletch's chapter);</p> <p>7.) video summary how light is produced in an atom is at https://www.youtube.com/watch?v=N9nWdNadkIE</p>	<p>Day 5</p>
<p>HMWK:</p> <p>1.) journal</p>			<p>HMWK:</p> <p>1.) journal;</p> <p>2.) from Section 5 class pdfs folder, read the file titled "Bohr Atom and Production of Light"</p>	
<p>3/8</p>	<p>3/9</p>	<p>3/10</p>	<p>3/11</p>	<p>3/12</p>
<p>CLASS:</p> <p>1.) reiterate how light is produced using video https://www.youtube.com/watch?v=N9nWdNadkIE (if not already shown on Friday);</p> <p>2.) to talk about emission spectra--leave zoom and read Fletch's Ch 4, pgs 117-124</p> <p>3.) look at silent video about emission and absorption spectra at https://www.youtube.com/watch?v=m69GjvN3n0M ;</p> <p>5.) talk about absorption spectra--look at flawed video at https://www.youtube.com/watch?v=XHpiJj3osTU</p> <p>6.) talk about Doppler Shift--look at video at https://www.youtube.com/watch?v=h4OnBYrbCjY</p> <p>7.) relevance to astronomy (start at about 1 minute)? https://www.youtube.com/watch?v=3mJTRXCMU6o</p>	<p>CLASS:</p> <p>1.) talk about spectroscopes (show demo of gas tubes and diffraction gratings) is dealing with light as a wave, but a wave of what?</p> <p>2.) introduce light as a wave video at https://www.youtube.com/watch?v=Iuv6hY6zsd0;</p> <p>3.) talk about electromagnetic radiation--look at video (only partially good--at https://www.youtube.com/watch?v=hk63uUhkZH4</p> <p>4.) leave Zoom and read from Section 4 of Fletch's Ch 3 (Light as a Wave), pgs 84-87 http://faculty.polytechnic.org/physics/1%20Astronomy,%20Cosmology,%20Relativity%202007to2008/4._Section_4_(light_as_a_wave)/1._Summary_Sect_4--light_as_a_wave/Ch%2003Phys--Light%20wave.pdf</p>	<p>FLEX DAY</p>	<p>CLASS:</p> <p>1.) do oral exams;</p> <p>2.) look at the nice summary of light: https://www.youtube.com/watch?v=IXxZRZxafEQ</p> <p>3.) possibly do Optical Potpourri lab?</p> <p>4.) do a quick rundown of optics . . . diffraction (we've talk about this before with the double slit--give its definition); reflection (talk briefly about ray tracing); and reflection (ran out of time)</p>	<p>(third quarter ends) Day 3</p>

<p>HMWK: 1.) journal 2.) from Section 5 class pdfs folder, read the file titled "Stellar Spectrum Characteristics and Black Body Radiation" http://faculty.polytechnic.org/physics/1%20Astronomy,%20Cosmology,%20Relativity%202007to2008/5._Section_5_(light_as_a_particle)/1._Summary_Sect_5--light_as_a_particle/pdf_summary_section_5.htm</p>	<p>HMWK: 1.) journal; 2.) try to find a cool video that illustrates something you found interesting we've talked about in the last few days . . .</p>		<p>HMWK: 1.) journal; 2.) try to find a video that talks about the various types of telescopes</p>	
Fourth Quarter, 2020-2021				
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
3/15	3/16	3/17	3/18	3/19
<p>CLASS: 1.) continue talk about refraction using https://www.youtube.com/watch?v=Bf1k9-4bb4w, 2.) talk about critical angle, swimming pools and wave guides; 3.) talk about thin films; 4.) look at mirages using video from India https://www.youtube.com/watch?v=pMMJo2q5ADM 4.) talk about the green flash https://www.youtube.com/watch?v=lwus2nqU0SY 5.) talk about what the sun does at sunset; 6.) look at ppts on lenses; 7.) talk about telescopes using https://www.youtube.com/watch?v=LzII1f3pp-8</p>	Day 5	FLEX DAY	<p>CLASS: 1.) preamble to section (celestial sphere; plane, constellations; the Zodiac; celestial plane; seasons, years, etc.) 2.) for fun, show "night sky with various degrees of city light," then "celestial sphere," 3.) talk about "leap year" discussion; 4.) talk about "how do we determine the distance to celestial objects?" and parallax; 5.) talk about astronomic unit and parsec; 6.) if time permits, start "over 1000 parsecs" discussion by beginning with luminosity and energy density;</p>	<p>CLASS: 1.) nice summary of earth information (sidereal day, size comparison to sun, etc.) https://ciechanow.ski/earth-and-sun/</p>
<p>HMWK: 1.) journal 2.) If you haven't already done it, fill out the Self-Assessment for your 3rd quarter Comments</p>			<p>HMWK: 1.) journal</p>	<p>HMWK: 1.) have a restful and fun holiday . . .</p>
3/22	3/23	3/24	3/25	3/26
Spring Break	Spring Break	Spring Break	Spring Break	Spring Break
3/29	3/30	3/31	4/1	4/2
Spring Break	Spring Break	Spring Break	Spring Break	Spring Break
4/5	4/6	4/7	4/8	4/9

<p>CLASS:</p> <ol style="list-style-type: none"> 1.) look at AP schedule and see who will be around when; 2.) talk about distance to celestial objects-- 3.) astronomic unit; 4.) parsec; 5.) luminosity, energy density, and apparent brightness; 6.) standard candles; 7.) apparent magnitudes and absolute magnitudes; 8.) spectral classes <p>https://www.youtube.com/watch?v=Y5VU3Mp6abI&t=1s</p>	<p>FLEX DAY</p>	<p>Day 3</p>	<p>CLASS:</p> <ol style="list-style-type: none"> 1.) talk a about Hertzsprung-Russell diagrams; 2.) how the H-R diagram can be used to determine the distance to a star https://www.youtube.com/watch?v=rBFWikTXXFI 2.) talk about molecular clouds https://www.youtube.com/watch?v=d9sZn3KbR9k, protostars https://www.youtube.com/watch?v=BFEBjvRjUY and stellar nurseries https://www.youtube.com/watch?v=EhTbAP1Iyhk; 3.) start stellar evolution of stars of size less than 8 solar masses http://faculty.polytechnic.org/physics/1%20Astronomy,%20Cosmology,%20Relativity%202007to2008/7._Section_7_(stellar%20evolution%20and%20planets)/1._Summary_Sect_7--stellar_evolution_and_planets/d.%20small_mass_star_evolution.p 	<p>Day 5</p>
<p>HMWK:</p> <ol style="list-style-type: none"> 1.) journal; 2.) determine how far you are, in miles, from where you were in the galaxy when you were born 			<p>HMWK:</p> <ol style="list-style-type: none"> 1.) journal 	
4/12	4/13	4/14	4/15	4/16
<p>CLASS:</p> <ol style="list-style-type: none"> 1.) talk about stellar evolution of stars whose mass is less than 8 solar masses; 2.) look at stellar evolution video at http://faculty.polytechnic.org/physics/1%20Astronomy,%20Cosmology,%20Relativity%202007to2008/7._Section_7_(stellar%20evolution%20and%20planets)/1._Summary_Sect_7--stellar_evolution_and_planets/d.%20small_mass_star_evolution.pdf 3.) look at HISTORY CHANNEL video on stellar evolution (about a half hour); 4.) talk about stellar evolution of stars whose mass is greater than 8 solar masses; 5.) talk about supernovas 	<p>FLEX DAY</p>	<p>CLASS:</p> <ol style="list-style-type: none"> 1.) look again at nuclide chart and reiterate where elements larger than Fe come from; 2.) talk about angular momentum, synchronous radiation and pulsars; 3.) talk about Kepler's Laws 	<p>CLASS:</p> <ol style="list-style-type: none"> 1.) about a day behind at this point, so finish up starts with supernovas, the production of elements via the nuclide chart, angular momentum and pulsars (and synchronous radiation); 2.) listend to pulsar at https://www.youtube.com/results?search_query=sound+from+pulsars or https://www.youtube.com/watch?v=j_3sHeUNn1k 3.) and Kepler's Laws; 4.) 	<p>Day 3</p>
<p>HMWK:</p> <ol style="list-style-type: none"> 1.) journal 		<p>HMWK:</p> <ol style="list-style-type: none"> 1.) journal; 2.) for fun, read the article at http://www.jpl.nasa.gov/news/news.php?feature=6223&utm_source=iContact&utm_medium=email&utm_campaign=NASAJPL&utm_content=daily20160330-2 	<p>HMWK:</p> <ol style="list-style-type: none"> 1.) journal 	
4/19	4/20	4/21	4/22	4/23

CLASS: 1.) say a little more about Kepler; 2.) talk about quasars at https://www.youtube.com/watch?v=3TZEp_n3eIc 3.) begin to talk about Einstein; 4.) present what motivated Einstein to create the Special Theory of Relativity; 5.) point out the difference between the Special and General Theory of Relativity;	Day 5	FLEX DAY	CLASS: 1.) talk about consequences of Einstein's assumptions; 2.) talk about the Michelson/Morley experiment; 2.) do baseball analogy--talk about how "c" can always be the same; 4.) begin to talk about consequences of "c" always being the same using space ship comparison (intro to time dilation and length contraction) 5.) good discussion of causality and the hyperbola patters mirror proper time count (very essoteric) https://www.youtube.com/watch?v=1YFrISfN7jo	CLASS: 1.) talk more about time dilation (powerpoints); 2.) show derivation of time dilation and length contraction; 3.) talk about space-time diagrams and world lines; 4.) talk about problem of units on axes of space/time diagrams (that time is like a distance, like an x/y graph);
HMWK: 1.) journal			HMWK: 1.) journal	HMWK: 1.) journal
4/26	4/27	4/28	4/29	4/30
CLASS: 1.) talk about relativistic factor and relativistic velocity--look again at derivation of length contraction (ppt messed up last time); 2.) give banana-eating chimp problem; 3.) look at a space/time diagram--talk more about units for its axes and notice its vagaries 4.) explain why the primed axes looks the way they do on a space-time diagram; 5.) talk about how you take data off a space-time diagram; 6.) do space-time diagram/world line exercise;	FLEX DAY	Day 3	CLASS: 1.) talk about magnetic field theory 2.) start paradoxes by outline pole in barn paradox;	Day 5
HMWK: 1.) journal			HMWK: 1.) journal	
5/3	5/4	5/5	5/6	5/7
CLASS: 1.) Sean and Gabe will be taking the AP Physics exam in the afternoon AP PHYSICS EXAM in afternoon	CLASS: 1.) Gabe and Sean will be taking the Calculus exam in the morning Calculus AP (morning)	FLEX DAY homework: English Lit and Comp AP in morning	CLASS: 1.) yes Comp Sci A AP Art History AP	Day 3
HMWK: 1.)	HMWK: 1.)		HMWK: 1.)	
5/10	5/11	5/12	5/13	5/14
CLASS: 1.)	Day 5	FLEX DAY homework:	CLASS: 1.)	CLASS: 1.) Libby and Sophie will be taking the AP Bio exam
HMWK: 1.)			HMWK: 1.)	HMWK: 1.)
5/17	5/18	5/19	5/20	5/21

CLASS: 1.)	Day 3	FLEX DAY homework:	CLASS: 1.)	Day 5
HMWK: 1.)			HMWK: 1.)	
5/24	5/25	5/26	5/27	5/28
CLASS: 1.) Libby and Sophie will be taking Calculus AP 2.) SENIORS AWAY FOR THEIR TRIPS	Block Day G-period	Block Day F-period	Block Day D-period	Block Day B-period
HMWK: 1.) NOPE	G-period	F-period	C-period	A-period
5/31	6/1	6/2	6/3	6/4
Memorial Day Holiday SENIOR TRIP	Special Schedule	Sign-outs	Pupil Free	US Honors Day and Commencement