

# Astronomy Calendar

Day	What studied	Activity	hw	materials
<b>Unit 1 The Night Sky</b>				
1	Our place in the Universe, seeing into the past, and the horizon system	Disclosure Document, Hand out the "about me paper". Possible mystery cube activity. Start the first PowerPoint (ch1), degree activity, Looked at sun spots with telescope	Homework 1	
2	more horizon system, the celestial sphere, and constellations	Introduce that season's constellations (pass out sheet for kids to study from). First part of PP on celestial sphere and constellations. Activity with star chart where the students measure the Azimuth and Altitude of different stars.  Video on the Constellations		Copies of the star chart activity  The Celestial sphere with the earth enclosed
3	Diurnal, ecliptic, zodiac const., seasons, day length	Introduce constellation project, Java applets and notes. Activity where the students line the room and we use a giant yellow balloon as the sun  Balloon Activity ????	Students have to come up with their own explanation of retrograde motion	Rulers, balloons  Big yellow balloon
4	the moon, lunar nodes, moon phases, eclipses	Review constellations The moon, Moon phase diagram paper and lecture Moon Notes.  Video on the Moon	Moon Phase Diagram	
5	Moon as a clock & Retrograde Motion	Constellation quiz, explain and pass out the moon clock worksheet.  Lecture Retrograde Motion and Planets	Moon as a Clock	
6	Internet Activity	Internet Activity to review the topics we have been discussing.		Computers
7	Constellation Presentations	presentations		
8	Review for test	Jeopardy Review for the test Work on the review sheet and any missing assignments for the rest of class	Review sheet for test	
<b>9</b>	<b>Test</b>	<b>Test unit one (night sky)</b>		
<b>U2 History of Astronomy</b>				
1	History of Astronomy	Learned the new const. Opening Power point where we look at those pictures of old stuff and calendar. We did the calendar/solar system paper. (Might be some spare time at end of class)		
2	Greek astronomers	Students use the computers and make a timeline for the greek astronomers. There is a paper for this.		Computers
3	Aristarchus and the solar system model	Take students out to foot ball field and talk to them about Aristarchus and how huge the solar system is, give them papers to tell them where the planets would be. Then go back to class and do the solar system model activity (use instruction sheet) Possible video ???		Kids need calculators, rulers, meter sticks and tape
4	Eratosthenes and the size of the Earth	Lecture all ancient astronomers today. Students will measure the size of a fake Earth in a similar manner used by Eratosthenes. (use instruction sheet)		
5	Copernicus and Brahe	Copernican Webquest and a look at the progression of retrograde motion and stellar parallax with Brahe.		Computers
6	Kepler--Ellipse	Started with a review of the constellations, had a brief discussion about what an ellipse is and then I showed the class what to do for mars. Did the Ellipse activity. Use the paper. Watch short history video.		

7	Galileo--Video	Took the Constellation Quiz. Went over the Renaissance astronomer notes, and ended the class with the Galileo video.		
8	Review	History jeopardy, and passed out the review sheet	Review sheet	
<b>9</b>	<b>Test</b>	<b>Test unit two (history)</b>		<b>computers</b>
		<b>U3 Solar System</b>		
1	Introduced planet project Creation of Solar System Day	Introduce new constellations Described the Project the students will be doing in class. Had the students use the books to make a story board for the creation of the solar system.	Solar system story board	
2		Watched a short video on the planets and then had the students do the comparative planetology paper.	Comparative planetology	
3	Research day / outline of project	Day 1 of planet projects. Students need to research the information they need to fill out the story board page as they collect pictures and write out their script.		Computers Go to the library to do the stuff for this day.
4	Intro to solar system and common planet facts	Review the constellations Go through the intro PP. Students should be able to talk a lot about the formation of solar system from their story boards. Have students do the short handout on the Moon.	Moon Hand out	
5	Make the video day	Students will use their outlines to create their short commercials for their planets.		Computers
6	Comets and Meteors	Go over constellations Power point on comets and meteors, give students time to finish their advertisements. Short video on this topic		Computers??
7	Light/spectroscopy/telescopes	Discuss light and telescopes use the PP. Demo the spectral lines with the gas tubes and the diffraction grating. Let students look over the small telescope in the corner. Students should use the time at the end of class to finish any assignment that are still pending.	Spectral lines ws (maybe)	
8	Presentation Day!	Watch all the commercials made by the students and then have the students fill out the paper on the planets		Comp 1 cart
9	Internet Activity	Internet activity on the information we have learned this unit.		Computers
10	review	Jeopardy review game	Review sheet	
<b>11</b>	<b>Test</b>	<b>Solar System Test!</b>		
		<b>U4 Stellar Evolution</b>		
31	The Sun	Introduce new Constellations Watched a video (bill nye and the sun) and Worked on the Sun notes from the book		Coloring pencils
32	The sun	finished the sun notes from book, as a class talked about some of those topics. power point		Coloring pencils
33	The birth of stars	Passed out the card with the stellar life cycle on them. The students had to organize them into a sequence that seemed possible to them and then write up a short explanation. Did the birth of stars power point, and showed them a couple of clips from off of the web. Passed out the protostar reading.	Notes on the Protostar article for a larger than normal quiz that we will take in class next time. Look at the Orion nebula and Pleiades	Stellar evolution cards
34	Life of a Protostar	Big quiz on the Protostar reading, Review constellations, Protostar power point, Hand out the HR diagram WS		
35	Evolution of a Star	Review the constellations, evolution of star pp, Then had out the main sequence activity sheet.		
36	Death of a star	death of a star power point, there are a couple of internet clips, got them started on the comic project		Colored pencils
37	Internet activity	Constellation test, Stellar life cycle internet activity		Computers
38	overview	Watched the longer video that can be		

		found on the web 25 min, then let the students work on their comics or back work.		
39	Review Day	Played Jeopardy		
40	Stellar Evolution Test	Test		
		<b>The End</b>		
41		Review for the constellation final. Students need to work on remediation for the tests we have taken. Possible video for those who are all caught up and done.		
42		To the Moon and Back		
43		Second review for the constellation test Paper Rocket lab—failing students remediate		
44		Final--video		