

# ASTRONOMY

Mr. Vestal

Students will be introduced to the concepts and principles which make up the science of astronomy. Labs and reports will also be a part of the class. Astronomy is a semester course so time is limited. Topics of study will be taken from the following...

- History of Astronomy
- Methods of Astronomy
- The Earth
- The Moon and Eclipses
- The Terrestrial Planets (Mercury, Venus, Earth, Mars)
- The Jovian Planets and Pluto (Jupiter, Saturn, Uranus, Neptune, Pluto)
- Asteroids, Comets, and Meteors
- The Sun
- Stars in General
- Multiple Star Systems
- Variable Stars
- The Interstellar Medium
- The Birth and Lifetime of Stars
- The Death of Stars
- The Milky Way Galaxy
- The Realm of Galaxies
- Cosmology
- Extraterrestrial Life

## Classroom Rules and Procedures

In order for effective learning to take place in the classroom it is important that each individual agrees to follow a few rules. These rules need to be established so that the entire year will flow smoothly for everyone.

- 1) Bring textbooks, notebooks, homework, and pencils to each and every class.
- 2) Be on time and in your seats when the bell rings.
- 3) Raise your hand and wait to be recognized before speaking. Only one person talks at a time.
- 4) Follow directions the first time.
- 5) Have respect for those around you.

When classroom rules are broken consequences will be issued. Consequences are cumulative and will be given in a quick and concise manner. In situations of severe behavior, the most severe consequence will be given out immediately.

- 1st offense - warning
- 2nd offense - one minute after class
- 3rd offense - one night detention
- 4th offense - two nights detention
- 5th offense - removal from class

# ASTRONOMY SYLLABUS

Class	Topic
1	Introduction/course outline/books
2	Chapter 1 - Charting the Heavens - Foundations of Astronomy
3	Chapter 1 - Charting the Heavens - Foundations of Astronomy
4	Chapter 2 - The Copernican Revolution - The Birth of Modern Science (video)
5	Chapter 2 - The Copernican Revolution - The Birth of Modern Science (video)
6	Chapter 2 - The Copernican Revolution
7	Egg Drop Competition
8	Review
9	<b>Test - Chapters 1 and 2</b>
10	Chapter 3 - Radiation - Information from the Cosmos
11	Chapter 3 - Radiation - Information from the Cosmos
12	Chapter 5 - Telescopes - The Tools of Astronomy
13	Chapter 5 - Telescopes - The Tools of Astronomy
14	Chapter 6 - The Solar System
15	Chapter 6 - The Solar System
16	Video - The History of Spaceflight
17	Video - The History of Spaceflight
18	Review
19	<b>Test - Chapters 3, 5 and 6 - Radiation/Telescopes/The Solar System</b>
20	Chapter 7 - Earth - Our Home in Space
21	Chapter 7 - Earth - Our Home in Space
22	Latitude/Longitude Lab
23	Video - The Blue Planet
24	<b>Test - Chapter 7 - Earth</b>
25	Chapter 8 - The Moon and Mercury : Scorched and Battered Worlds
26	Chapter 8 - The Moon and Mercury : Scorched and Battered Worlds
27	Moon Phases/Tides/Eclipses
28	Lab : Moon Phases/Tides/Eclipses
29	<b>Lab Quiz - Moon Phases/Tides/Eclipses</b>
30	Video - The Moon and Beyond
31	Computer Slide Show/Review/Down on the Moon Lab
32	<b>Test - Chapter 8 - The Moon and Mercury</b>
33	Chapter 9 - Venus
34	Chapter 10 - Mars
35	Lab - The Orbit of Mars
36	Lab - The Orbit of Mars
37	Videodisc - The Planets (part 1)
38	Review
39	<b>Test - Chapter 9 and 10 - Venus and Mars</b>
40	Chapter 11 - Jupiter
41	Chapter 12 - Saturn
42	Chapter 13 - Uranus, Neptune, and Pluto
43	Videodisc - The Planets (part 2)
44	Review
45	<b>Test - Chapter 11, 12, and 13 - Jupiter, Saturn, Uranus, Neptune, and Pluto</b>

<u>Class</u>	<u>Topic</u>
46	Library - Research Reports
47	Library - Research Reports
48	Locating Planets - Planospheres
49	Locating Planets - Planospheres
50	Rockets
51	Rockets
52	Rocket Launch
53	Chapter 14 - Solar System Debris
54	Chapter 14 - Solar System Debris
55	Video - Haley's Comet
56	Chapter 15 - The Formation of the Solar System
57	Review
58	Test - Chapter 14 and 15 - Solar System Debris and The Formation of the Solar System
59	Chapter 16 - The Sun
60	Lab - Sunspots
61	Chapter 17 - Measuring the Stars - Giants, Dwarfs, and the Main Sequence
62	Chapter 17 - Measuring the Stars
63	Chapter 18 - The Interstellar Medium - Gas and Dust Among the Stars
64	Chapter 19 - Star Formation - A Traumatic Birth
65	Chapter 19 - Star Formation - A Traumatic Birth
66	Chapter 20 - Stellar Evolution - From Middle Age to Death
67	Review
68	Test - Chapters 17, 18, 19, 20 - Stars
69	Chapter 21 - Stellar Explosions
70	Chapter 22 - Neutron Stars and Black Holes
71	Sidereal Time
72	Constellation Packets
73	Winter Sky
74	Winter Sky - Review
75	Winter Sky - Quiz
76	Spring Sky
77	Spring Sky - Review
78	Spring Sky - Quiz
79	Summer Sky
80	Summer Sky - Review
81	Summer Sky - Quiz
82	Fall Sky
83	Fall Sky - Review
84	Fall Sky - Quiz
85	Make Up Quiz for all seasons
86	Field Trip - Carnegie Science Center
87	Constellation Review
88	Sky Final Exam
89	Review for Final Exam
90	Review for Final Exam