

Unit 5: Galaxies & Cosmology

Learning goal: One thing I would like to learn about galaxies is:

The letter grade I want to earn for this unit is: _____

What are three specific things I need to do in order to accomplish these goals?	Did I do it?
1.	☐
2.	☐
3.	☐

Unit 5 Checklist
☐ KAMI- <i>Milky Way Scales</i> ☐ 5.1 Galaxy Classification ☐ 5.2 Galaxies & The Big Bang ☐ Video Assignment: The Ever Expanding Universe ☐ HW 5.3 Life in the Universe ☐ HW 5.4 Practice Exam ☐ Unit 5 Test & Late work deadline (7:45am) ☐ Practice FINAL Exam ☐ FINAL Exam (all constellations & stars learned) ☐ Bonus Video: Star of Bethlehem (<i>in class only</i>) <i>May 15th is the last day of Astronomy. Nothing aside from the final exam and in-class bonus video will be accepted after 7:45am on May 15th.</i>

Name: _____ Period: _____

How well do I understand Unit 5?

Shade in each box completely to show your understanding level for each objective.

- 1- I saw this in class, or I was absent and got notes from someone or from Canvas.
- 2- I am beginning to understand. This makes sense when I see this in class, but I struggle with it.
- 3- I understand what is important. I can do the homework if I can look at my notes.
- 4- I understand completely. I can do the homework without help. I could teach it to another student.

5A Galaxy Properties & The Milky Way

I can classify galaxies as spiral, barred spiral, elliptical, or irregular.	1	2	3	4
I can identify where new star formation is taking place within a galaxy.	1	2	3	4
I can describe what is located at the center of most galaxies.	1	2	3	4
I can describe the basic structure and features of the Milky Way Galaxy.	1	2	3	4
I can describe where the Sun is located in the Milky Way.	1	2	3	4
I can define & identify the following terms: halo, bulge, disk, nucleus, globular cluster	1	2	3	4

5B Cosmology & Hubble's Law

I can describe the four fundamental forces of nature.	1	2	3	4
I can identify evidence that supports the Big Bang Theory.	1	2	3	4
I can compare the distances to other galaxies by comparing apparent sizes.	1	2	3	4
I can compare the distances to other galaxies by analyzing galactic redshift.	1	2	3	4
I can describe what a Quasar is, and why it is important to astronomers.	1	2	3	4

5C Life in the Universe

I can describe how the Drake Equation is used to predict intelligent life in the galaxy.	1	2	3	4
I can describe what "habitable zones" are for both stars and galaxies.	1	2	3	4
I can describe the Urey-Miller Experiment and the Fermi Paradox.	1	2	3	4
I can describe mankind's attempts to locate life outside of the Earth.	1	2	3	4

5D Constellations & Bright Stars

I can identify each of the constellations and bright stars we have learned this semester.	1	2	3	4
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Unit 5 Study Guide

Constellations: *All of the constellations from units 1, 2, & 3, plus the following:*

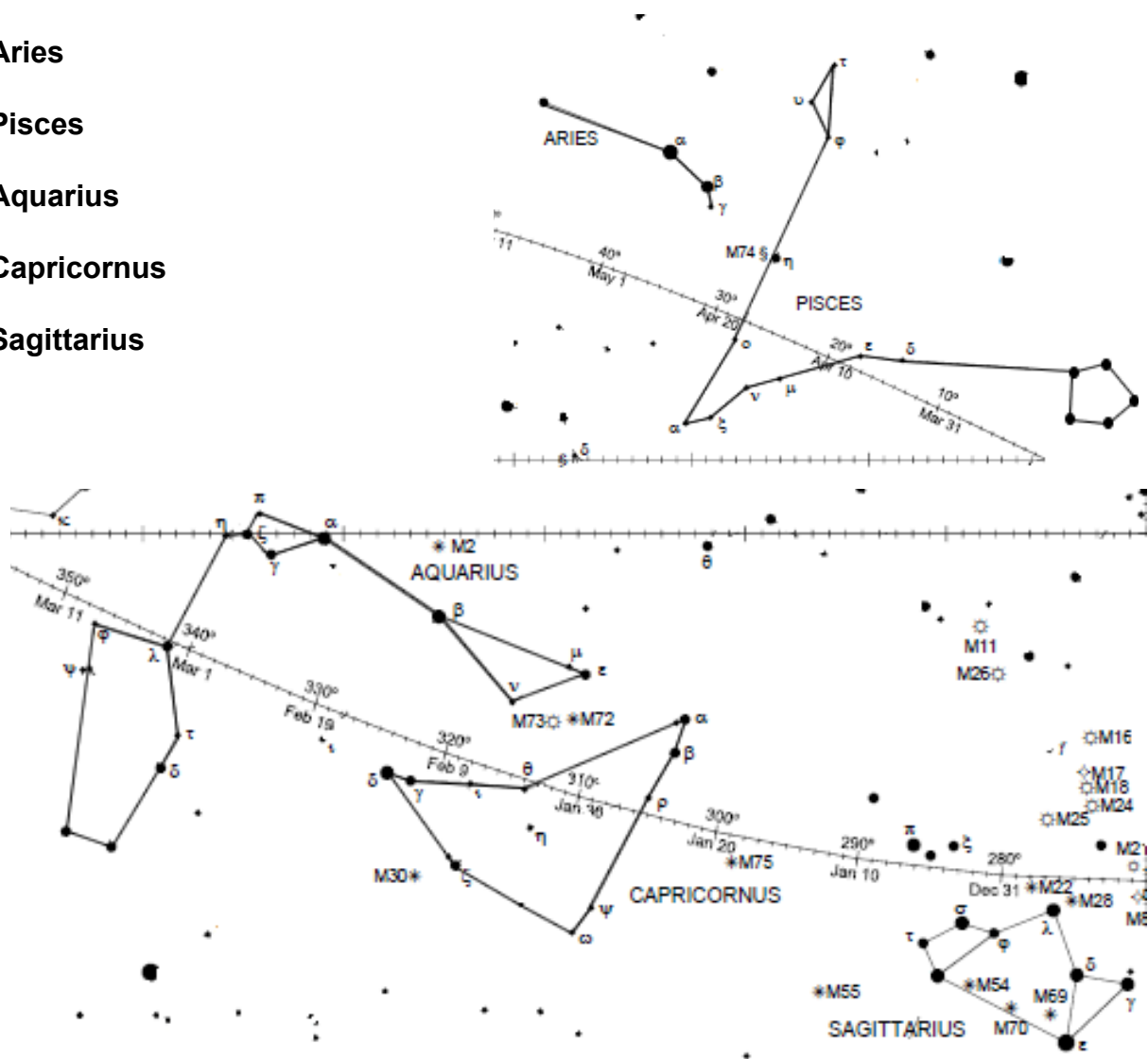
Aries

Pisces

Aquarius

Capricornus

Sagittarius



Hubble's Law & Galactic Redshift.

The Drake Equation

Evidence for Big Bang Theory (Cosmic microwave background radiation, Quasars far away, Hydrogen & Helium in the universe, dark sky at night, Hubble's Law--farther galaxies move away from us faster)

Four fundamental forces: Gravity, Electromagnetic, Weak, Strong

