Week 8 Virtual Binder Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per \_\_\_\_

Sjuts Office Hours: All work is due Thursday, May 21st at 10am. Office hours are available upon request. For those who would like to pop in to chat, my final Zoom meeting will be Wednesday, May 20th from 2:30-3:30pm. → <https://lps.zoom.us/j/188685904>

Smith Office Hours: All work is due Thursday, May 21st at 10am. Office hours are available upon request. Our final class meeting to wish each other a great summer will be Wednesday, May 20th from 12:30-1:30 P.M.

→ <https://lps.zoom.us/j/8246353539>

Objectives: Text Key Concepts

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| 8. Explain the Big Bang Theory & summarize supporting evidence.  | GS 31.2- 31.3  | Steady State Theory, Hubble’s Constant, Redshift, Cosmic Microwave Background, Open/Closed/Flat Universe, Critical density |

Week 8 Virtual Binder Objective Work:

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| Objective 8: |

Objective 8 Tasks:

* Read Ch 31.2-31.3 and view the Cosmology slides. Watch [Beyond the Big Bang](https://live.myvrspot.com/iframe?v=fZjY1YzM1NGE0MzI3MmIwMjY0OGFlNzE3MjcwZDQzNTE) (1:16:30) to supplement. It is long but cool.
* Complete Cosmology Assignment
1. Describe the Big Bang Theory. (pg 847)
2. One observation that led to the BBT is the red-shift of galaxies. What does this mean? (pg 843-3)
3. Draw a spectral fingerprint of a motionless object. Then draw a spectral fingerprint showing red-shift and one showing blue-shift.

 Motionless Red shift Blue shift


4. What is Hubble’s Law? Include a graph, an equation, and an explanation of Hubble’s constant. (pg 842-3)
5. Penzias and Wilson stumbled upon the discovery of Cosmic Microwave Background radiation. Explain what it is and why it is significant. (pg 848)

[http://astronomy.swin.edu.au/cosmos/C/Critical+Density](http://astronomy.swin.edu.au/cosmos/C/Critical%2BDensity)

1. What is critical density? How does it relate to the Open/Closed/Flat Universe concepts? (pg 849)
2. Not all astronomers agree that the universe had a beginning, which led to an alternative theory. Explain.

**You did it! Congratulations! HPS is in the books!**

Please be sure you’ve submitted any missing work, and then give us some feedback as you reflect below:

1. The best thing about remote learning was:
2. The worst thing about remote learning was:
3. Advice I have for students during remote learning would be:
4. 3 pieces of advice I have for my teacher are: