



## Lab 11: Stellarium Scavenger Hunt

### Introduction

One last trip through the cosmos using Stellarium! Complete the following questions, using the Stellarium program, the moon globes, and the celestial spheres. When you have completed the exercise, please submit this worksheet for quiz credit. **You must complete and submit no later than 08/06/15.**

### Procedure

- Launch:** Start the Stellarium program.
- Location:** If your default location is not Conway, AR, click on the Location Window icon (vertical toolbar, top icon). Start typing "Conway" in the search box, and select Conway, AR as your location.
- Time:** Click on the Date/Time Window icon. It should initially display the current and correct date and time.

### Questions

- On the evening of 08/01/15 at 8:00 PM (20:00), what major **constellation** will you see if you face due **west** and look just above the horizon?

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- At what time does the moon rise and set on 08/01/14? What is its phase?

MOON RISE	
MOON SET	
MOON PHASE	

- Which planets, if any, are visible at sunrise (call it 6:30AM) on 08/01/15?

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- Are there any planets visible at 8:00PM on 08/01/15? Which ones?

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- Find the **brightest** star that is **closest** to the meridian at 8:00PM on 08/01/15. Name the **star**, give its **J2000 RA/Dec coordinates**, and its **absolute magnitude**.

STAR	
RA/DE	
ABSOLUTE MAGNITUDE	

- Find the constellation **Ursa Major**, or the Big Dipper. What do other cultures see when they look at this grouping of stars? (*Hint:* Use your Sky and Viewing Options window!)

CHINESE	
EGYPTIAN	
INUIT	
LAKOTA	
NAVAJO	
NORSE	
POLYNESIAN	

- Why did the **Maori** of New Zealand never identify and give a name to this constellation?

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- Locate the object **M 51 – NGC 5194**.

CLOSEST CONSTELLATION	
RA	
DEC	
COMMON NAME	
TYPE OF OBJECT	

- Could you see this object with your naked eye? Justify your answer (*Hint:* apparent magnitude).

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10. Locate the **Eagle** and **Trifid** nebulae, both of which we have seen and discussed in class (zoom in!). List the **coordinates** of each, and determine if either will be visible in the evening on 08/01/15 (start at 6:00PM).

	EAGLE	TRIFID
RA		
DEC		
VISIBLE?		

11. Where (in general) do you notice the greatest density of deep-sky objects (clusters and nebulae)? Why do you think that is?

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12. Locate the **Summer Triangle**, and identify by name the three stars which form the triangle (use Google if you do not know this—apparently Stellarium doesn't know it, either!). List the **spectral type** of each, and its V and M values.

STAR	SPECTRAL TYPE	V	M

Hottest? \_\_\_\_\_

Appears brightest? \_\_\_\_\_

Actually brightest? \_\_\_\_\_