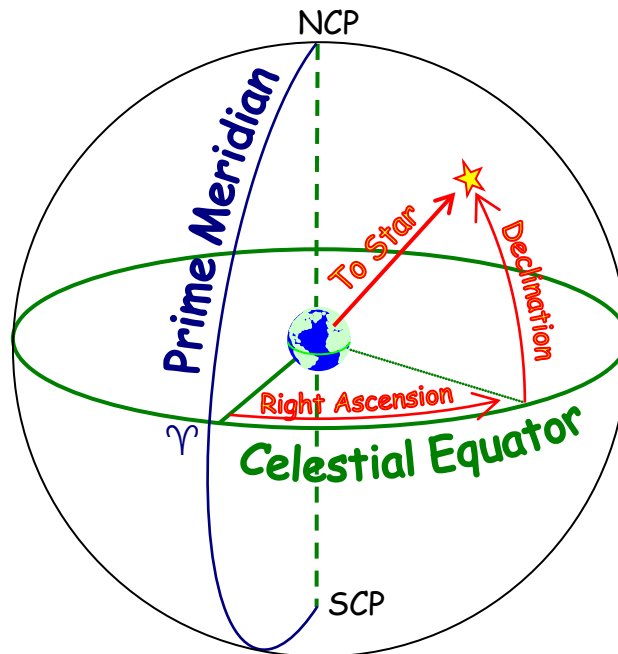


Celestial Coordinates

I. RIGHT ASCENSION AND DECLINATION

A way to locate a point on the sky is to use its right ascension and declination:



DECLINATION (Dec or d): Measures the angle north or south of the celestial equator $\pm 0^\circ$ to 90°
 Celestial Latitude ... parallels of declination
DEGREES, ARCMINUTES, ARCSECONDS: $0^\circ 0' 0''$ to $90^\circ 0' 0''$

RIGHT ASCENSION (RA or α): Measures the angle east of the prime meridian from 0h to 24h
 Celestial Longitude ... great circles of right ascension
HOURS, MINUTES, SECONDS: $0^h 0^m 0^s$ to $23^h 59^m 59^s$

On your celestial globe

- ★ identify the **celestial equator** and find the **hours of right ascension** markings
- ★ identify the **prime meridian** and find the **degrees of declination** markings

Using the RA and Dec markings, identify the stars located at the following coordinates. Use the *Peterson Field Guide* to confirm these and find the Bayer designation.

RA	DEC	STAR NAME	CONSTELLATION	BAYER DESIGNATION
6h 45m	- 16° 43'	Sirius	Canis Major	β CMa
18h 37m	+ 38° 47'			
5h 15m	- 8° 12'			
7h 39m	+ 5° 14'			
6h 24m	- 52° 41'			

On these charts from the Field Guide, use colored pencils to highlight and label the

- lines of 0^h , 6^h , 12^h and 18^h
- circles of 0° , $+20^\circ$, $+50^\circ$, -20° , and -50° .

Also highlight and label the stars listed on the flip side of this sheet.

In what constellation is the point 21^h , $+20^\circ$? (Use the Atlas Chart!!)

(Use your field guide to read the numbers since these are very small!!)

