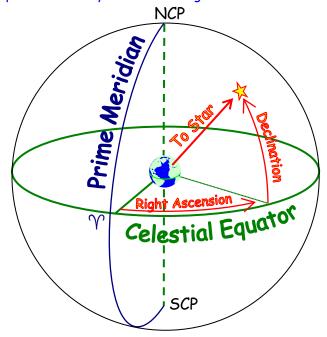
## Celestial Coordinates

## 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  $90^{\circ}$  Celestial Latitude ... parallels of declination

DEGREES, ARCMINUTES, ARCSECONDS: 0° 0' 0" to 90° 0' 0"

RIGHT ASCENSION (RA or a): Measures the angle east of the prime meridian from 0h to 24h

Celestial Longitude ... great circles of right ascension

HOURS, MINUTES, SECONDS: 0h 0m 0s to 23h 59m 59s

On your celestial globe

 $\star$ identify the **celestial equator** and find the **hours of right ascension** markings

\*identify the prime meridian and find the degrees of declination markings

<sup>12</sup>Using the RA and Dec markings, identify the stars located at the following coordinates. Use Appendix 2 in the *Peterson Field Guide* to confirm these and find the Bayer designation.

RA	DEC	STAR NAME	Constellation	BAYER DESIGNATION
6h 45m	- 16° 43	Şirius	Canis Major	β <b>СМ</b> а
18 <sup>h</sup> 37 <sup>m</sup>	+ 38° 47	Vega	Lyra	α Lyr
5h 15m	- 8° 12	Rigel	Orion	β Ori
7h 39m	+ 50 14	Procyon	Canis Minor	αCMi
6h 24m	- 52° 41 <sup>'</sup>	Canopus	Carina	α Car

<sup>18</sup>On BOTH charts from the Field Guide, use colored pencils to highlight and label the

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

<sup>10</sup>Also **highlight and label** the stars listed on the flip side of this sheet.

<sup>4</sup>In what constellation is the point 21<sup>h</sup>, +20°? (Use the Atlas Chart!!)

## Velpecula

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

