$\qquad$ Date $\qquad$ Hour

## AST\#4 - Study Gvide The Moom, the Stars \&o the Gallaxy

1) Put these terms in order from smallest to largest... galaxy / universe / solar system / planet / star / moon
2) The Moon is considered Earth's ONLY $\qquad$ .
3) Is the Moon getting closer or farther away from the Earth each year?

By what distance?
4) What is special about the Moon's revolution and rotation?

How does this affect our view of the Moon?
5) Why does the Moon's surface have so many craters?
6) Why do we see light coming from the Moon?
7) What is the difference between waning and waxing?
8) What is the difference between a crescent and a Gibbous Moon?
9) Use this diagram to ILLUSTRATE and NAME the phases of the Moon.

10) What type of eclipse happens when the Moon blocks part of the Sun's light from reaching the Earth?

What type of eclipse happens when the Earth moves between the Sun and the Moon?
II) How do stars produce their own energy?
13) What type of energy do we receive from the sun?
14) Are all stars the same? Explain
15) What is this diagram called?
16) What is the $x$-axis measuring?

In what unit?
17) What is the $y$-axis measuring?

In what units

18) Which star is hotter, Vega or the Sun?
19) Which star is brighter, sirius $A$ or sirius $B$ ?
20) Which star is coolest, Mira, Altair or Barnard's Star?
21) Which star is dimmest, Betelgeuse, Vega, Centauri, Rigel?
22) The temperature of a star will affect its $\qquad$ .
23) What term does this chart use instead of 'Luminosity'?
24) Plot these stars on the HR-Diagram and determine their color.

| Letter | Temperatur <br> $e$ | Luminosity | Color |
| :---: | :---: | :---: | :---: |
| A | $6,000^{\circ} \mathrm{C}$ | 12 |  |
| B | $35,000^{\circ} \mathrm{C}$ | -2 |  |
| C | $20,000^{\circ} \mathrm{C}$ | 10 |  |
| D | $2,500^{\circ} \mathrm{C}$ | -9 |  |
| E | $4,000^{\circ} \mathrm{C}$ | 0 |  |


25) Why do stars seem to rise and set in the night sky?
26) What star is aligned with Earth's North Pole?
27) How does this change its motion in the night sky?
28) This is an illustration of our $\qquad$ $\rightarrow \rightarrow$ called the $\qquad$ .
29) What shape /type is it?
30) Why can't we see that shape from Earth?

