Introduction to the Planisphere

Objectives:

- Students will be able to use a planisphere to locate stars and constellations for any date and time of the year.
- To understand how the night sky changes through the seasons.

Analysis:

1. What is a horizon? Find the horizon on the planisphere. ________________________

2. Find 9 pm for today’s date on your planisphere. Rotate the planisphere until today’s date and 9 pm are lined up. Find North, South, East and West. Name a constellation on the Northern horizon __________________. Eastern Horizon ___________________. Southern horizon ________________. And Western Horizon _____________________.

3. Where is your Zenith? ____________________________ What constellation is at your Zenith tonight at 9 pm? _______________________

4. Find the center of your planisphere, what constellation is the metal clip going through? _____________________________. What is the name of the star? _______________________

5. Rotate your planisphere so that stars travel from East to West. Name 5 constellations that do not go below the horizon. These are known as circumpolar constellations: _____________________, _____________________, _____________________, _____________________, and _____________________.

6. When is your birthday? ________________ Line up 9 pm with your birth date. Find a constellation that is rising in the East _____________________________. Find a constellation that is setting in the West _____________________________. Find a constellation that is in the southern sky _____________________________. Find a constellation that is at your zenith _____________________________.

7. Locate Orion on the planisphere. What time will it rise tonight? ________________ When will it be in the southern sky? ________________ When will it set tonight? _________________.

Conclusion: 2 –3 sentences on what you learned. ____________________________________________________________