



Activity 6: The Night Sky

How can changes in the night sky show me how things move in space?

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You will be making your own observations of the night sky and recording them in a viewing log. You can use your star wheel to help you locate constellations you might see. The idea is to watch the same spot in the sky for several hours to see if you notice how it changes over time. Think about Galileo making these same observations during his time. Would you have made the same conclusions that he did?

Materials

- Star Wheel
- Night Sky Viewing Log
- pencil
- One of the following *Starry Night Chart* websites:

<https://in-the-sky.org/skymap.php>

<https://neave.com/planetarium/> (requires flash)

Instructions

1. You will use a *Starry Night Sky Chart* website to map changes to the locations of stars over a period of several hours in the same night.
2. Go to the *Starry Night Sky Chart* website.
3. Click the *World Map*. Then, find and double-click your location.
4. Select a starting time of 7:00 p.m. and your current date.
5. Under options, be sure to uncheck the “show daylight” box. This will make seeing the location of the stars easier.
6. You will be observing the Southern Horizon. Select your direction by clicking the bottom of the star screen. To track changes, you need to make all your observations facing the same direction (South).
7. Record your observations for your first entry in your Night Sky Viewing Log.
8. Keep the viewing direction the same, but change the time now to 8:00 p.m. and record

your observations.

9. Repeat steps 7 and 8 by changing the time every hour until you have made observations until 12:00 a.m. (midnight). (You should have six entries in your viewing log.) If possible, try to do this same activity outside viewing the stars over a period of a few hours.

Use your Star Wheel to see if you can identify any constellations.

Do you notice the changes to the positions of the stars over time?



Night Sky Viewing Log

Record your observations in your Night Sky Viewing Log by attaching an image or doing a drawing.

Date:	Location:
Time:	What did you see? (image or drawing):
7:00 p.m.	

8:00 p.m.	
9:00 p.m.	
10:00 p.m.	

<p>11:00 p.m.</p>	
<p>12:00 a.m. (midnight)</p>	
<p>What do you notice about the location of the stars as time passes at night? Need a hint? Do the stars move North, South, East, or West?</p>	