

## Zodiac Activity

Use the Ecliptic and Zodiac Simulator to “move” the Sun (represented by the large white dot) in orbit around Earth, even though we know that the Earth orbits the Sun. The simulator enables us to visualize what zodiac constellations are visible depending on the time of year and location of Earth in its orbit.

- Complete the following table by moving the red arrow on the simulator across the list of months, stopping the arrow on the last letter in each month’s abbreviation, for example, on the “n” in “Jan”. There should be two constellations listed in column B for each month and 2 in column C for each month. The information for January and July has been included to help you get started.

A	B	C
Month	Sun appears between these zodiac constellations	Zodiac constellations visible at midnight from Earth
January	Sagittarius, Capricorn	Gemini, Cancer
February		
March		
April		
May		
June		
July	Gemini, Cancer	Sagittarius, Capricorn
August		
September		
October		
November		
December		

- For any month, what is the relationship in the sky between the constellations listed in columns B and C?
- What constellation were you during our class demonstration?
- Which constellation was on the other side of the sky from you, behind the Sun?
- During what time period of the year would an observer on Earth, looking toward the Sun, have seen you behind the Sun if they had been able to block out the Sun’s light?
- During what time period of the year would an observer near the Sun, looking at Earth, have seen you appear behind the Earth?