

# Where Is the Sun Now?

## OBSERVATION DIAGRAM SHEET

Record your observations of the Sun for your location in the diagram below. This wide-angled perspective shows your view of the horizon looking south from where you placed your toilet-plunger gnomon or from other nearby locations where your view to the south is not too obstructed. Your teacher will help you establish where the cardinal directions (the directions of the compass) are in your location. Stand so east is to your left and west is to your right.

1. On the diagram, fill in some stationary objects that you see in your view of the horizon. These may be buildings, trees, telephone poles, or other objects of your choosing. Start by drawing an object that is close to south in your diagram. Then draw an object in the east, followed by one in the west. Next, fill in a few more objects in between those that you already have. One tree is shown to demonstrate the approximate size of things for your drawing.
2. Each time you make an observation, note the location of the Sun in the sky in relation to the objects in your drawing. Do not look directly at the Sun because looking at it can hurt your eyes. Just glance at its approximate location in relation to objects in your drawing. Label each Sun location with the time of day you made the observation. If you are doing this activity during daylight saving time, remember to record the time in standard time by subtracting one hour from the time on your clock.
3. Wait until the next observation time and record the Sun's location in your diagram, again labeling the time. Continue making as many observations as you can throughout the day.
4. Describe in your astronomy lab notebook the motion of the Sun across the sky throughout the day.

