



*Designed for families with kids ages 6 and up,  
and aspiring astronomers of all ages.*

**This guide will show you how to use the objects  
in your neighborhood as markers for the cardinal  
directions: north, south, east, and west.**

**These markers can help you find stars, planets,  
and other objects in the sky.**

## **Make your Neighborhood Stonehenge**

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### **Choose your observing spot**

- Find a place where you can see the Sun moving through the sky. You will come back to this same spot to make all the observations listed below.
- Tip: Look for a safe outdoor area without too many things blocking your view. If you're indoors, find a window that lets you see the sky.

### **Find your east marker**

- In the morning, go to your observing spot and notice where the Sun first appears. Look beside the Sun, not directly at it, to protect your eyes.
- Choose a landmark that is near or just below the rising Sun; it might be a building, tree, light pole, or other object.
- Record this landmark to help you remember. Options include writing in a notebook, or taking a picture.
- That landmark will be the east marker in your Neighborhood Stonehenge.

### **Find your west marker**

- In the evening, go to your observing spot and notice where the Sun is just before it sets.
- Find a landmark that's near the Sun at that time, and record it in your notes or as a picture.
- This will be the west marker in your Neighborhood Stonehenge.

### **Find your south marker**

- While at your observing spot, rotate your body so that the east marker you've chosen is to your left, and the west marker is to your right.
- Look in the direction your body is now facing, and choose a landmark there to be your south marker. Record it in your notes or as a picture.

### **Find your north marker**

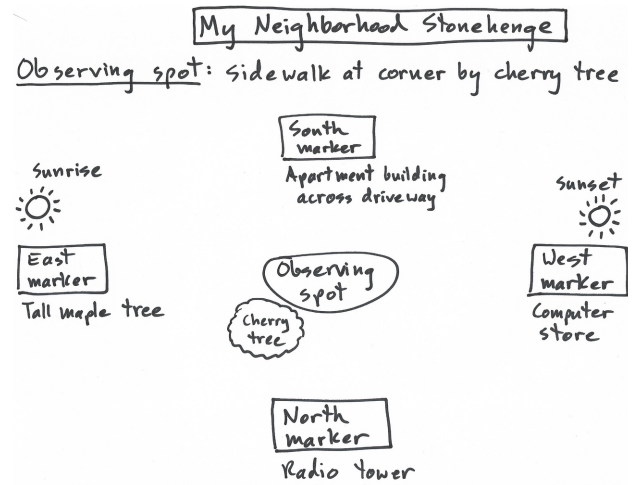
- While at your observing spot, rotate your body so that the east marker is now to your right, and the west marker is to your left.
- Look in the direction your body is now facing, and choose a landmark there to be your north marker. Record it in your notes or as a picture.



## How to record your observations

This image shows one way you can record your directional markers to help you remember them.

You could list them, describe them, draw a picture, or do several of these things! Choose whatever will help you later when you want to use your markers to show you the directions.



## Use Your Neighborhood Stonehenge

- Your directional markers can help you find other objects in the sky, such as the Moon and planets.
- The Moon will follow approximately the same path through the sky as the Sun does.
  - It will rise near your east marker and set near your west marker, but will appear at different times of day or night over the course of a month.
- The planets will also appear along the same path as the Moon and Sun in the sky.
  - Mercury and Venus will sometimes appear near your west or east markers, above the sunrise or sunset, because they orbit so close to the Sun.
  - The other visible planets (Mars, Jupiter, and Saturn) will each appear for a few months at a time. They will slowly shift from east to west in the sky over time, rising 2 hours earlier each month.
- You can use your directional markers to help you look for constellations, comets, or even satellites like the International Space Station. Look to online sources or apps to tell you which direction to find these things and when they appear.

## Air and Space Connections

- Throughout history, humans have built structures that line up with the Sun or are used to mark cardinal directions, such as Stonehenge in England.
  - [UNESCO Portal to Astronomy and World Heritage Sites](#)
  - [Video of sunrise at Stonehenge on the June solstice, 2019](#)
- If you're looking to do more sky-gazing, the [NASA Night Sky Network](#) has great resources, like constellation maps and daily guides to what's in the sky.
- If you have young learners, try our [Wondering About Astronomy Together guide](#).



Stonehenge image by Gareth Wiscombe