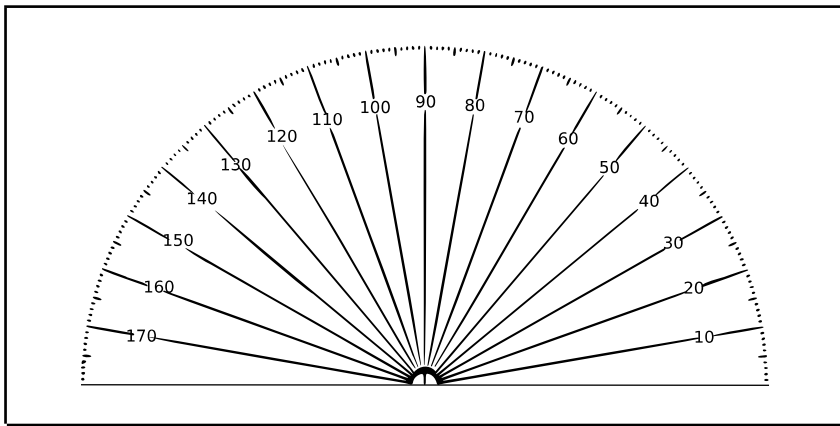# Staerkel Planetarium Cosmic Quest:
How High in the Sky?

When we measure how high something appears in the sky, we don't use inches or centimeters. We use *degrees*. Not degrees as in temperature, but degrees as in circles.

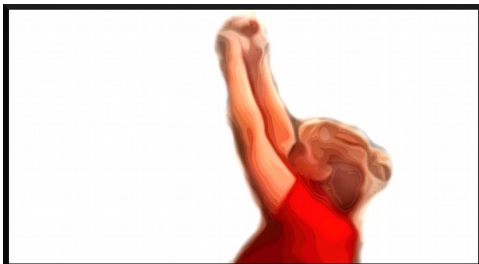A circle, all the way around, is divided up into 360 degrees. Half a circle is 180 degrees.

Looking at this half-circle, we see that the degrees are marked off around the curve.

This is a measuring tool called a protractor.

An easy way to estimate how high up is to hold up your arm straight out and make a fist.

Each fist measures out 10 degrees. In this photo, the measure is 20 degrees. The number of fists times 10 equals the number of degrees.

Keep stacking fist over fist until you are looking straight overhead. The measure should be 90 degrees above the horizon.
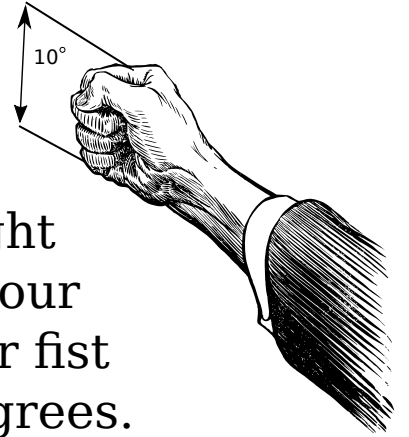
Try it yourself!

Stand near your home or a nearby building. Use your fists to measure how high the roof is of the building.

Then write down the height of the building roof in degrees.

Use the box below to draw a picture of the building.

Measuring angles

10°

Hold out your fist with your arm straight out. The bottom of your fist to the top of your fist measures out 10 degrees.

How many fists? _____   How many degrees? _____