## '/eplivi



The ground where you are standing used to be a rail line. Not only that, but it also is where a famous train once raced from Chicago to Denver. First run in 1934, the Burlington Zephyr set a speed record on its nonstop 1017 mile run reaching a top speed of 112 miles an hour.

The big red train in front of you might not set any speed records, but it is also all about time. The tail of this train is aimed due north and angled to match Denver's Latitude of 39.7 degrees, parallel with the axis of the earth. That means this train can tell time!

Look at the shadow on the curved path. The bottom edge of the tail of the train can be used as a sundial. If you draw trace the edge of the shadow on the sidewalk you will be marking a moment you can see every day at the same time.

Hours minutes and seconds were all made up by humans. This sculpture is more about what time means to you than knowing what hour of the day it is. Use chalk on the sidewalk to mark your time.

## WHAT IS A SUNDIAL?

A sundial is an ancient tool to tell the time based on the position of the sun in the sky. To make one you will need to know which way is north, a stick (called a gnomon), and a clear day with the sun out. As the earth spins, the sun will move across the sky and cast shadows. At noon, the all shadows will point exactly North.


## ACTIVITIES

1. Think of something important that happened to you. Use chalk to trace the sundial's shadow at that time of the day.
2. Look at the shadow right now. Can you guess when the sundail's shadow will be one hour later?
3. How long will it take for the shadow to move 1 foot?
4. Trace a friend's feet on the ground and have them stand still in that spot. Draw a shadow of your friend at two or more times.
5. Make your own sundial... (will need compass, a protractor, and some other stuff.)
