Earth's Rotation & Revolution: 8.1

Where does the sun go when we can't see it? _____! We actually are the ones moving.

Earth spins on its _____, which is an imaginary line around which an object spins or rotates. When the Earth spins around on its axis it is called _____.

Earth's rotation is what give us day and night, every day, all year because when one side of Earth is facing the sun it is _____ while the side that is facing the sun it is _____.

**This changes because _____.

At the same time that the Earth is rotating (causing day and night) it is also _____. Which means that it is traveling around the sun. This takes _____ which equals one _____.

Because the Earth is tilted, one part of Earth is _____ and one is _____. This means that different parts of our planet are getting different amounts of _____ and _____.

This creates a pattern. When <u>you</u> are on the part of the planet that is facing toward the sun, it is _____. This means the Southern Hemisphere is experiencing _____, because they are opposites.

If neither hemisphere is facing the sun it is either _____ or _____.

If the Earth wasn't tilted, we would have _____ all year long.

Following the Sun: 8.2

Why do shadows move over time?

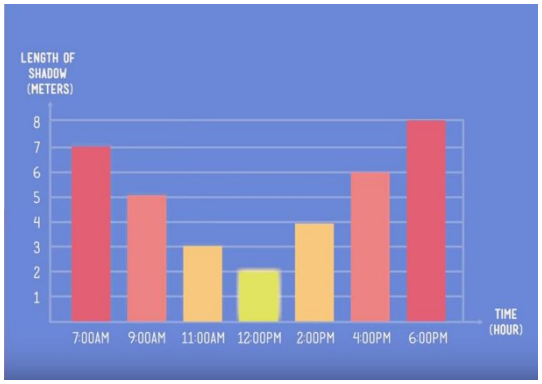
What is a shadow? It is the _____ that is created by your body blocking the sun. Your shadow is always _____ the direction the sun is to you (or another object).

Even for objects that don't move like _____ or buildings, their shadows will move because the _____.

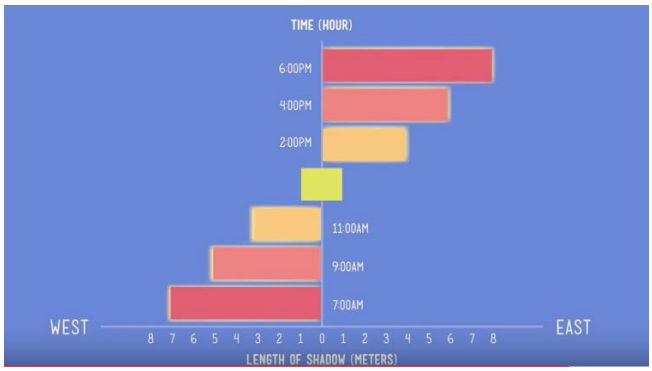
How did people in ancient civilizations use the sun to tell time? They knew that the sun followed a specific _____ each day. It always was rising in the _____ and setting in the _____.

Because the sun followed a pattern during the day, so did _____.

In the morning, shadows point to the west. They start out _____ then get _____ as we go toward noon. At _____ there is hardly any shadow. After noon the shadows start to get _____ again, but point to the east.



GRAPH 1: WHEN THE SUN IS LOW IN THE SKY, SHADOWS ARE LONG. WHEN IT'S HIGH IN THE SKY, SHADOWS ARE SHORT.



GRAPH 2: WHATEVER DIRECTION THE SUN IS IN THE SKY, THE SHADOWS IT CREATES WILL POINT IN THE OPPOSITE DIRECTION.