Resource from animation found at: <http://www.iris.edu/hq/inclass/search>

**Narration from the animation:**

**1-Component Seismogram:**

**Building responds to P, S, surface waves**

Body waves from distant earthquakes travel a curving path through the earth. As a result, they arrive at distant seismic stations from below (6 sec)

Since the motion of a P wave is in the direction a wave travels, the motion of a seismograph station will be mostly vertical with little horizontal motion.( 14 sec)

In contrast, since S-wave motion is perpendicular to the direction of wave travel, an S-Wave traveling the same path will produce chiefly horizontal motion. (22 sec)

The surface waves, such as Rayleigh and Love waves move in a more undulating pattern across the surface of the earth. (29 sec)

The seismogram below merely depicts motion, not direction of motion.