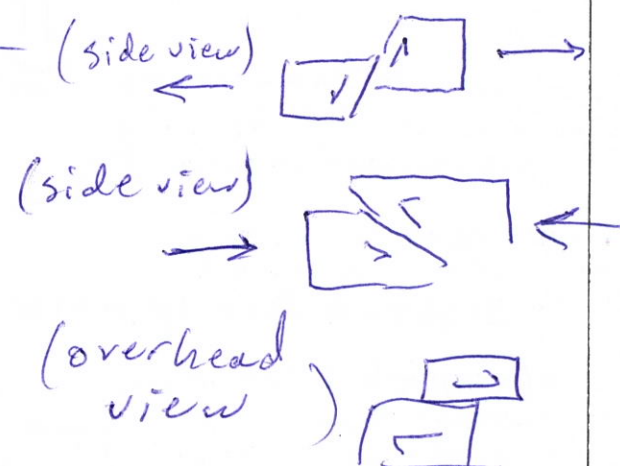
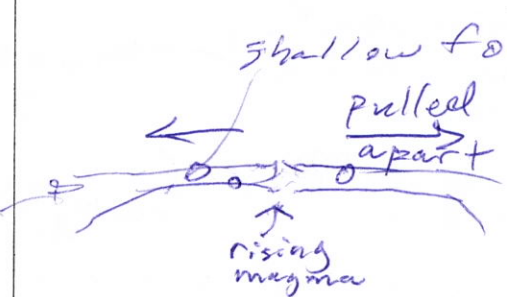
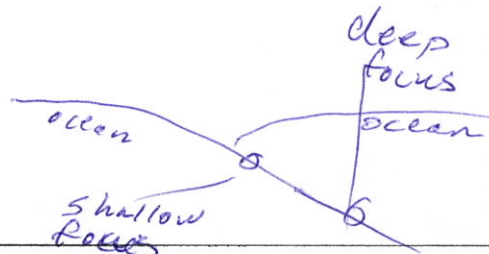


2A

Earthquake Notes

Name <u>Awesome</u>	
Teacher's Notes (Fill in the blanks.)	Briefly describe the points in your own words. Include any important equations and examples.
<p>Earthquakes happen because, at tectonic plate boundaries, rocks tend to <u>lock</u> and build up <u>stress</u> <u>up</u> <u>potential energy</u>.</p> <p>When the rocks finally break, a <u>fault</u> movement occurs. There are three main kinds, associated with different forces:</p> <p>A <u>normal fault</u> occurs due to tensional forces at <u>divergent</u> boundaries.</p> <p>A <u>thrust fault</u> occurs due to compressive forces at <u>convergent</u> boundaries.</p> <p>A <u>strike-slip fault</u> occurs due to shearing forces at <u>transform</u> boundaries.</p> <p>The exact spot where the rock breaks is called the <u>focus</u> of the earthquake. The corresponding geographical location above that is the <u>epicenter</u> of the earthquake.</p> <p>Different depths are typical of different boundary types, as well:</p> <p>divergent: <u>shallow focus</u></p> <p>convergent: <u>shallow</u> (near trenches) or <u>deep</u> (within subduction)</p>	<p>Elastic Rebound Theory</p> <ol style="list-style-type: none"> 1. plates lock 2. build stress/deform 3. they snap/move/release energy    <p>thin lithosphere</p>

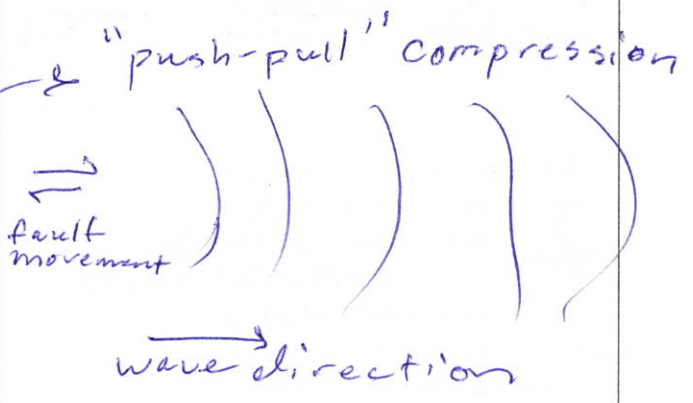
transform:
kind of wild card

Earthquakes send out waves of energy called seismic waves

kinetic

There are several types of these waves, and here are the major distinctions:

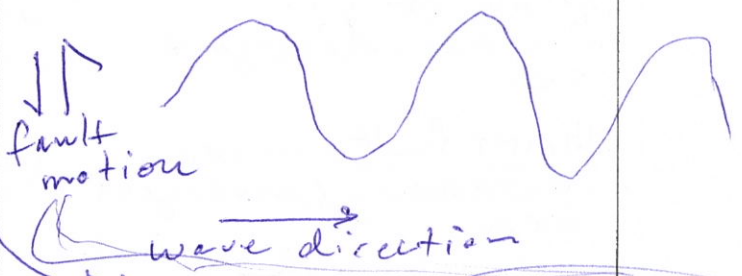
P-waves or primary waves, are the first to arrive at a measuring station. These waves can travel through both solids and liquids



S-waves, or secondary waves, are the second to arrive at a measuring station. These waves can only travel through solids.

"shear" transverse

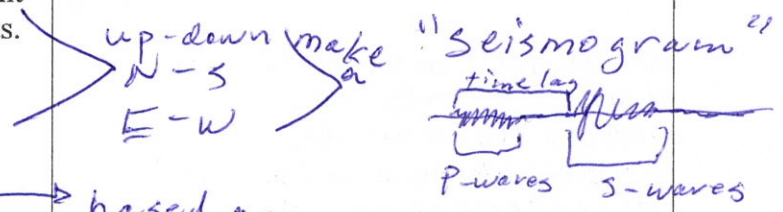
Also, there are surface waves that can travel only at ground level. They come after secondary waves.



The time lag between primary waves and secondary waves is useful for finding distance from epicenter

ie, P- and S-waves move through interior

A seismograph is the instrument for measuring earthquake movements. Typically, you would want three of these at a measuring station.



The Richter scale is the traditional scale for measuring earthquake magnitude.

based on the amplitude of the seismogram

An updated scale is the moment magnitude scale.

based on the area and distance of fault movement

Briefly summarize the entire page in your own words. (You do not have to be exhaustive.)