
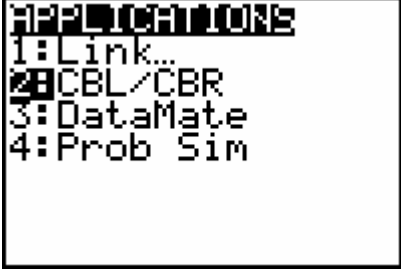
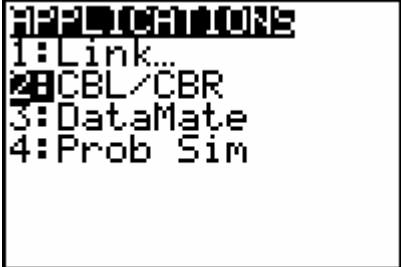



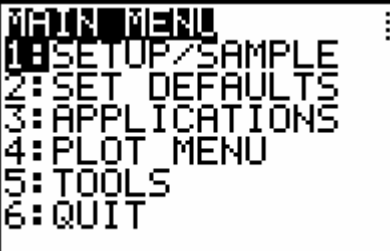

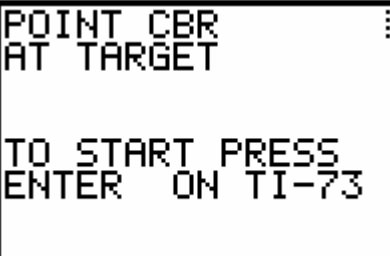

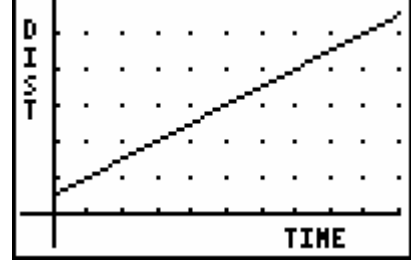
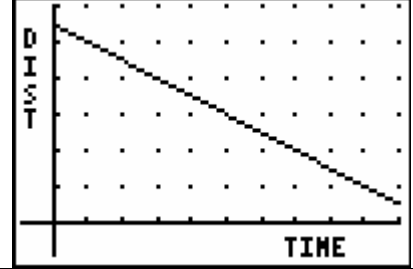
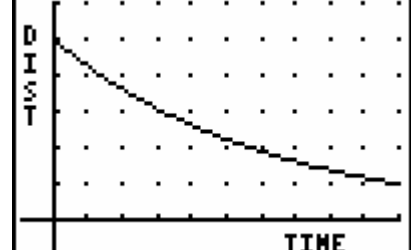


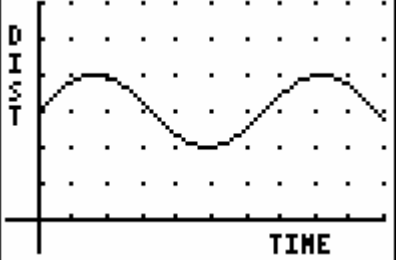
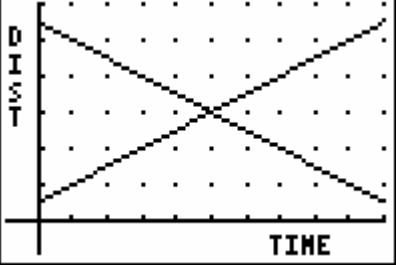
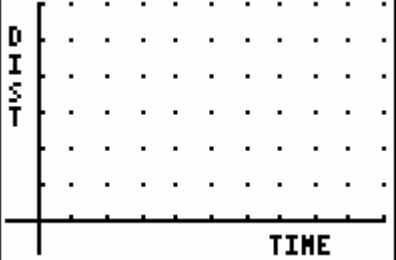
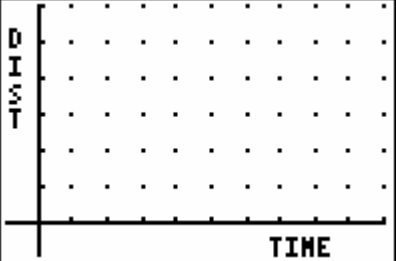
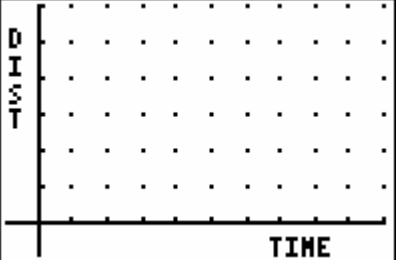
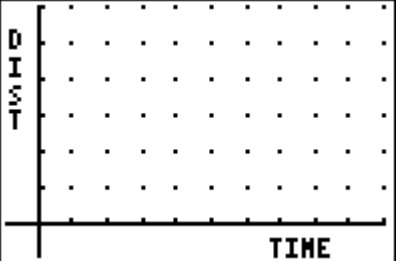
NSES Content Standards:

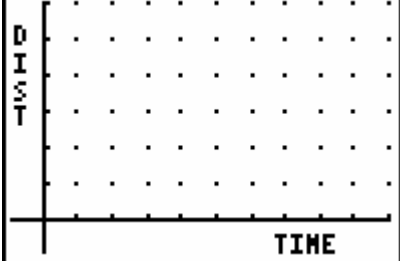
- Unifying concepts and processes in science.
- Science as inquiry.
- Physical science.
- Science and technology.

<p>Activity 6: Driving with Dramis</p>	
<p>In this activity we will:</p> <ul style="list-style-type: none"> • Use the CBL/CBR APP to collect distance vs. time data with the CBR2. • Predict how to move in front of the CBR2 to make a given shape. • Given a set of instructions on how to move, sketch a graph of what the plot will look like. • Verify your predictions. 	
<p>Ms. Dramis loved to leave shapes on the motion detector for the Resource Room Officer at school when she came to work each morning. She did this by moving in front of the detector. She would leave letters that over several DAYS would spell a word. Before spring break one year, during which she went skiing in Colorado, she would leave shapes of mountains. Sometimes she would write out the moves she would need to make on a piece of paper the night before.</p> <p>In this investigation we will explore how she did this using the CBR2 and the RANGER program. Press [APPS] to see if you have the CBL/CBR APP. If you don't have it, find another team that has it and link to get it or visit the TI website to download it and use TI-Connect and the Graph Link cable to send it.</p>	
<p>To use the CBR2 with the RANGER program, press [APPS] and then select the CBL/CBR APP.</p>	

<p>You will see a splash screen telling which version of the APP you have. Press a key to pass this.</p>	 <p>TEXAS INSTRUMENTS CBL/CBR (TM) version 1.4 PRESS ANY KEY</p>
<p>Select the RANGER part of the APP.</p>	 <p>CBL/CBR APP: 1: GAUGE 2: DATA LOGGER 3: RANGER 4: QUIT</p>
<p>Press ENTER to pass this splash screen.</p>	 <p>TEXAS INSTRUMENTS RANGER (V1.00) PRESS ENTER</p>
<p>From the MAIN MENU select option 1: SETUP/SAMPLE. If another team has been using the CBR2 for this investigation, you might want to start with option 2: SET DEFAULTS.</p>	 <p>MAIN MENU 1: SETUP/SAMPLE 2: SET DEFAULTS 3: APPLICATIONS 4: PLOT MENU 5: TOOLS 6: QUIT</p>
<p>Move your cursor up to the START NOW option and press ENTER</p>	 <p>MAIN MENU ▶START NOW! REALTIME: YES TIME (S): 15 DISPLAY: DIST BEGIN ON: [ENTER] SMOOTHING: NONE UNITS: METERS</p>
<p>You are now ready to collect data. Position the CBR2 and move in front of the eye after to press ENTER. Explore to see how things work.</p>	 <p>POINT CBR AT TARGET TO START PRESS ENTER ON TI-73</p>

<p>If you get what you want, then GREAT. If not press ENTER.</p>	
<p>From the PLOT MENU you may select option 3 to try again, or option 4 to adjust the setup. As you do this investigation you may want to change some of the settings.</p>	<pre> PLOT MENU 1:SHOW PLOT 2:SELECT DOMAIN 3:REPEAT SAMPLE 4:MAIN MENU 5:QUIT </pre>
<p>Now that you know how the motion detector works we will try to learn how to do the Dramis deal.</p>	
<p>Describe you would have to move in front of the CBR2 to make the graph at the right. Write these instructions below. Try your moves and see if you were correct. If you succeed take the handheld to the computer or the Navigator hub and save the image. If you are not successful, edit your instructions.</p> <p>To get this graph:</p>	
<p>Repeat the process To get this graph:</p>	
<p>To get this graph:</p>	

<p>To get this graph:</p>	
<p>To get this graph:</p>	
<p>Now we will do the reverse. With the set of instructions below, what will the graph look like if you move this way in front of the CBR2? Sketch it at the right. Then test it and capture the image as before if you succeed.</p> <p><i>Run away from the CBR2.</i></p>	
<p><i>Walk toward the CBR2.</i></p>	
<p><i>Run half-way and abruptly stop.</i></p>	
<p><i>Jump straight up.</i></p>	

<p><i>Stand half-way from the CBR2 and jump back.</i></p>	
<p>Extension:</p> <ul style="list-style-type: none"> - Draw a graph and give it to another team to develop a set of instructions on how to move to make it. Let them try it and see how well they do. - Give a set of instructions on how to move to another team. Have them sketch a graph of what it will look like. Let them move based on your instructions and see how well they did. 	