




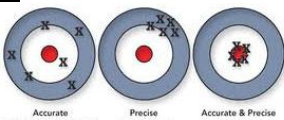



Natural Math<sup>®</sup> presents  
**Math Trek**  
 movement & photography game

## Math in the Machine

First played at Frantz Automotive, Cary, NC on February 10, 2012

Grow Your Math Eyes!

<b>Quest 1: Find it!</b> <ul style="list-style-type: none"> <li>Find at least one example for each of the five puzzles, in 20 minutes or less</li> <li>Photograph what you find</li> </ul>	
<b>1. A machine, for a good <u>measure</u></b> 	Find a machine that measures something <ul style="list-style-type: none"> <li>For example, speedometers measure speed</li> <li>Precision wrenches and screwdrivers measure torque</li> </ul>
<b>2. Mechanic's <u>gradient</u></b> 	Find a group of machines with a gradual change in a property <ul style="list-style-type: none"> <li>A set of wrenches sorted by their diameter</li> <li>Mallets with different weights</li> </ul>
<b>3. Use the Force. <u>Multiply</u> the Force!</b> 	Find a machine that multiplies forces. <ul style="list-style-type: none"> <li>Simple machines, such as a lever or a pulley</li> <li>Hydraulic machines, such as a lift</li> </ul>
<b>4. <u>Precisely!</u></b> 	Find a situation where high precision is necessary, and where it is not <ul style="list-style-type: none"> <li>Low precision: filling the gas tank; high precision: making the cover so it fits the tank</li> </ul>
<b>5. An interesting <u>angle</u></b> 	Find a situation where angles and directions are important <ul style="list-style-type: none"> <li>Are the car wheels parallel?</li> <li>Where does the hand go on a dial?</li> </ul>
<b>Quest 2: Show it!</b> <ul style="list-style-type: none"> <li>Choose your favorite found math</li> <li>Tell other gamers how to pose to show, stage, and impersonate that math</li> <li>Take a picture or a video</li> </ul>	
<b>Quest 3: Share it!</b> <ul style="list-style-type: none"> <li>Email your photographs to <a href="mailto:mathtrek@posterous.com">mathtrek@posterous.com</a></li> <li>Upload videos to YouTube or Flickr and email urls</li> <li>Put "Math in the Machine" in the subject line</li> <li>Doodle over photos to show math better, if you want</li> </ul>	

