



**CALIFORNIA STATE SCIENCE FAIR  
2013 PROJECT SUMMARY**

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<b>Project Title</b> <b>Do Cell Phones Affect Living Organisms? An Experiment Using Planaria</b>	
<b>Objectives/Goals</b> My goal was to figure out if cell phones can affect living organisms. For my experiment I used planarian and observed their activity and speed.	
<b>Abstract</b>	
<b>Methods/Materials</b> Materials: 1 metal board with wells, 1 ruler with a centimetric scale, 1 stopwatch, 1 dropping pipette, 1 small plastic cup, spring water, 1 cell phone with 1 charger. Procedure: For group 1: 1. Fill a well on the metal board and the small plastic cup with spring water. 2. Using the dropping pipette, take a planarian from the big plastic cup (where they constantly live) and place it into the well. 3. Wait until the planarian starts moving in a straight direction. 4. Measure the distance that the planarian has travelled in a straight direction with the ruler, measure the time that it took the planarian to do this with a stopwatch. Record the data. 5. Using the dropping pipette, take the planarian out of the well and move it into the small plastic cup. 6. Repeat steps 2-5 with all the planarians. 7. Using the dropping pipette, put all the planarians back to the big plastic cup where they constantly live. For group 2: 1. Place the big plastic cup with the planarians next to a charging cell phone for 2 hours 15 minutes (the amount of water in the cup is approximately 45 ml). 2. Do steps 2-7 from the procedure for group 1. For group 3: 1. Place the big plastic cup with the planarians next to a charging cell phone for 2 hours 15 minutes (the amount of water in the cup is approximately 45 ml), make 10 calls with the length of 1 minute during this time. 2. Do steps 2-7 from the procedure for group 1.	
<b>Results</b> Planarians that spent 2 hours 15 minutes next to a charging cell phone were slightly more active and faster than the control group. Planarians that spent 2 hours 15 minutes next to a charging cell phone that produced 10 calls during this time (1 minute each) were significantly more active and faster.	
<b>Conclusions/Discussion</b> Cell phones can affect living organisms.	
<b>Summary Statement</b> My project is about figuring out if cell phones can affect living organisms using planaria - considering their activity and speed.	
<b>Help Received</b> My project's advisor is the only person I received help from.	