

# What's the conductivity of Gatorade? - Worksheet

Name: \_\_\_\_\_

Class: \_\_\_\_\_

Date: \_\_\_\_\_

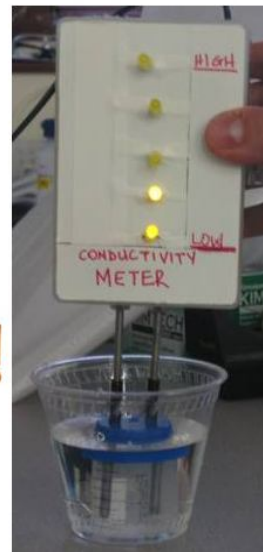
To determine how well solutions of salt and water conduct electricity, a device called a conductivity meter will be used.

**Conductivity** - a measure of how well a material allows electricity to pass through it.

This conductivity meter uses a series of special light bulbs called LEDs (Light Emitting Diodes) to indicate how well the solution conducts electricity. As the conductivity of the solution increases, more LEDs will be lit.

1. Use the conductivity meter and record the number of LEDs that are lit when different amounts of salt are added to a ½ cup of water. Record your observations in the table below. Make sure to mix the salt and water solutions thoroughly, so that there is no salt left at the bottom of the cup.

Number of packets of salt added	Number of LEDs that are lit
0	
1	
2	
3	
4	
5	



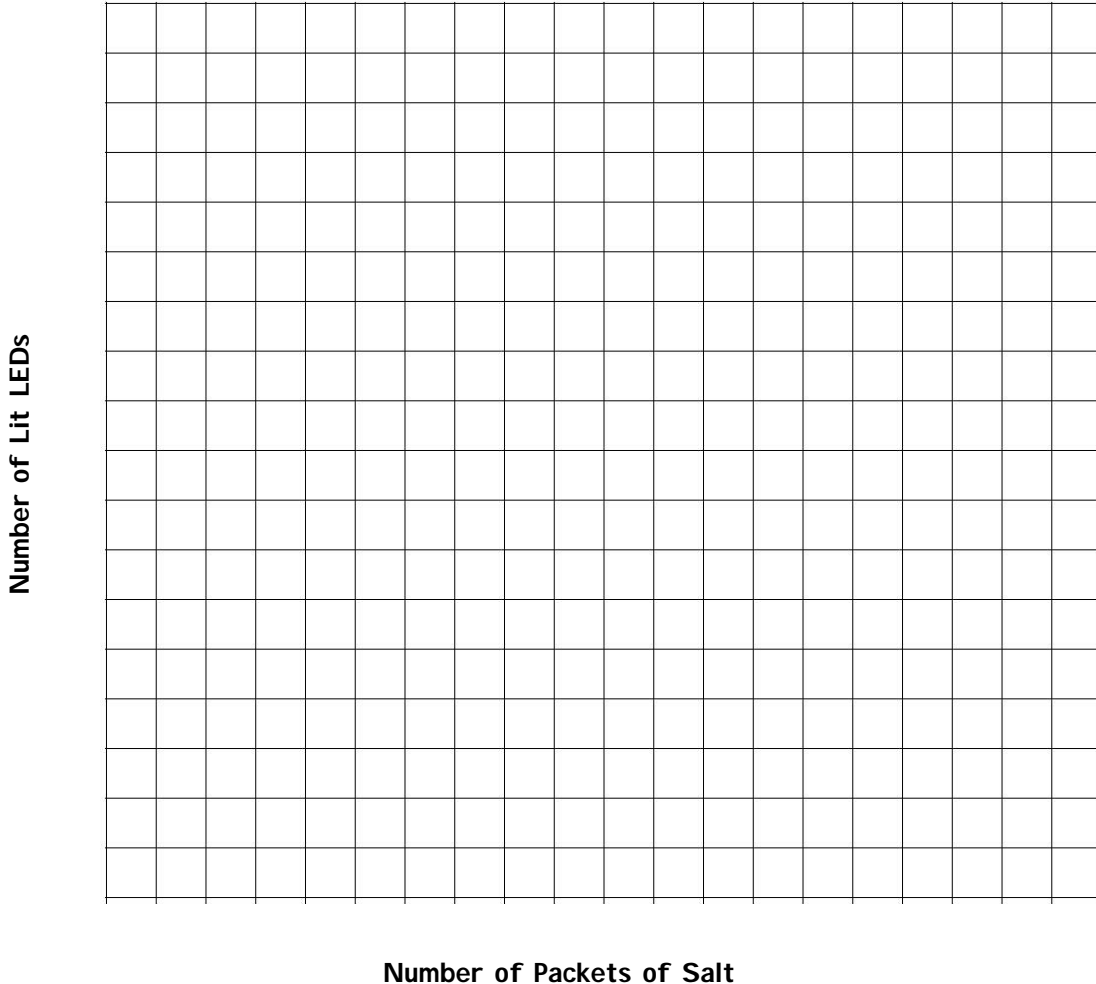
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- Plot the values from the table onto the graph below.



- Using a ruler, draw a straight line that passes through all the points on the graph. If your line does not pass through all the points, try to get it as close as possible to all the points on the graph. We will call this graph, a Conductivity Curve.

- Measure the conductivity of Gatorade:

Number of LEDs lit: \_\_\_\_\_

- Using your Conductivity Curve and your conductivity reading for Gatorade, how many packets of salt does Gatorade contain?

A ½ cup of Gatorade contains \_\_\_\_\_ packets of salt.