



TeachEngineering

STEM Curriculum for K-12

SALTWATER CIRCUIT



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Saltwater Circuit

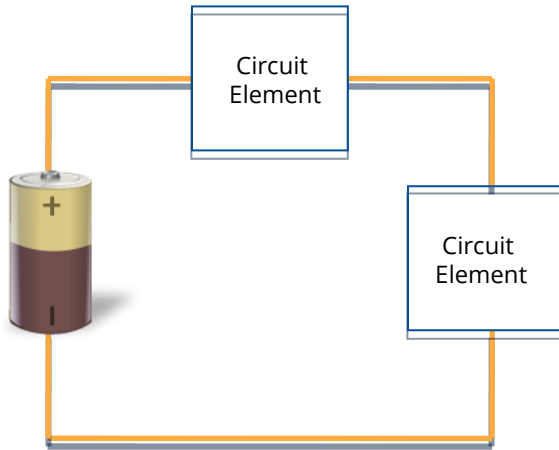


What is a saltwater circuit?

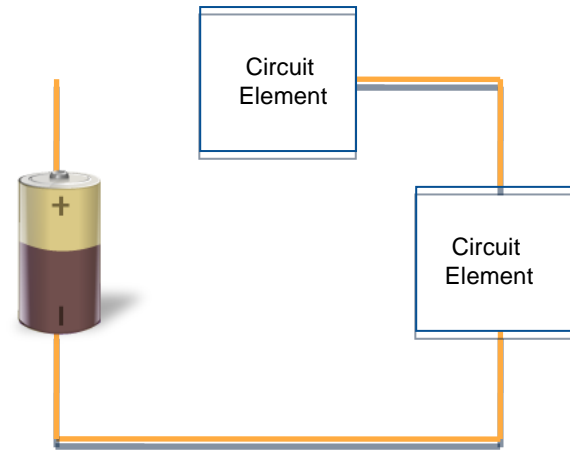
- It's an electric circuit that uses saltwater as one of its circuit elements.
 - When you mix water and salt, the salt dissolves. Salt turns into sodium ions and chloride ions.
- When you apply a electric voltage, the circuit conducts electricity if enough sodium ions and chlorine ions are present in the water.

Basic Circuit

- **Electric circuit:** A chain of connected circuit elements

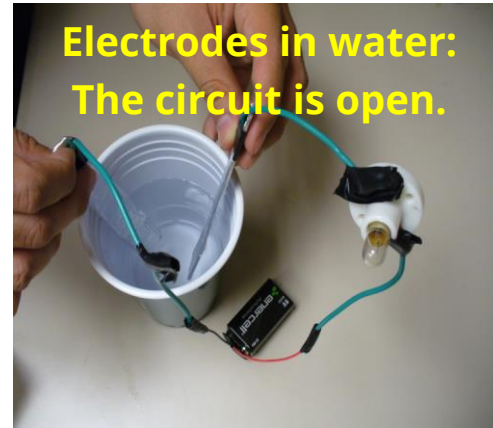
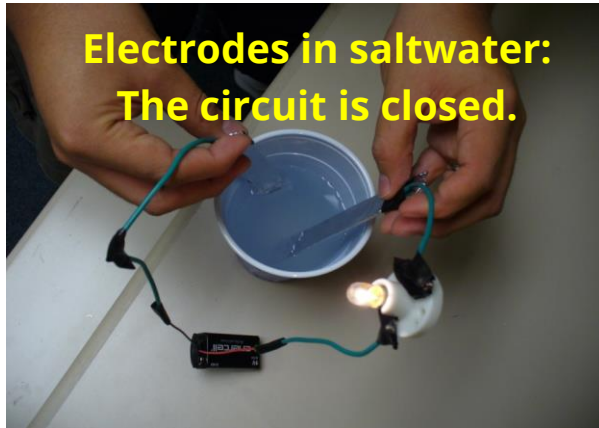
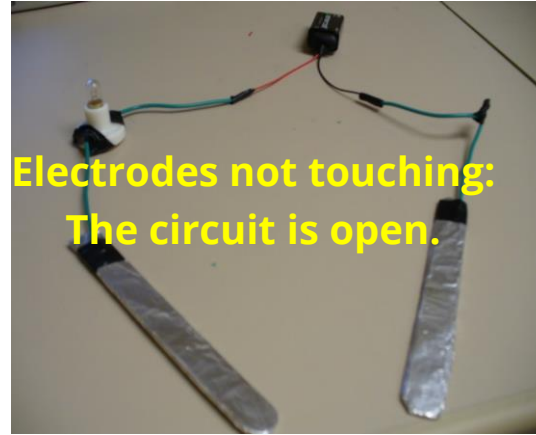
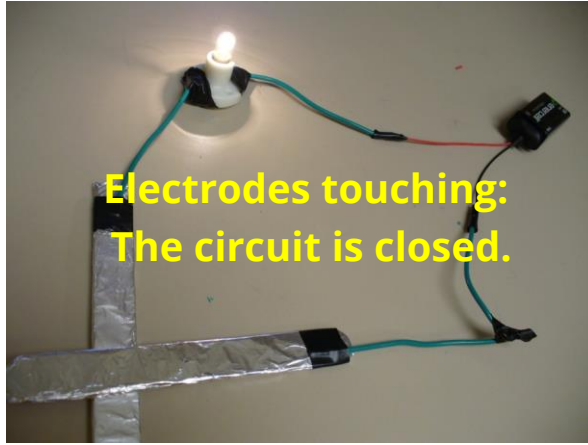


- **Closed circuit:** All circuit elements are connected and electric current flows through the circuit.



- **Open circuit:** At least one break in the circuit. Not all elements are connected. Electric current does not flow in the circuit.

Saltwater Circuit



Your Objective:

Answer the following question:

- How does the quantity of salt in a saltwater circuit effect the current flowing through the saltwater circuit?

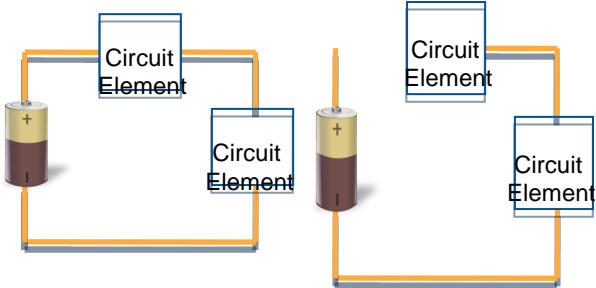
The end



References

- PBS Kids Go. Zoom-Saltwater Rocks. WGBH Educational Foundation. Accessed May 1, 2010. <http://pbskids.org/zoom/activities/sci/saltwatertester.html>
- Wikipedia.org, Wikipedia Foundation Inc., Accessed May 1, 2010. (Source of vocabulary definitions with some adaptation.) <http://wikipedia.org>

Image sources



Diagrams by Juan Ramirez Jr.,
ITL Program, College of Engineering, University of
Colorado at Boulder, 2009



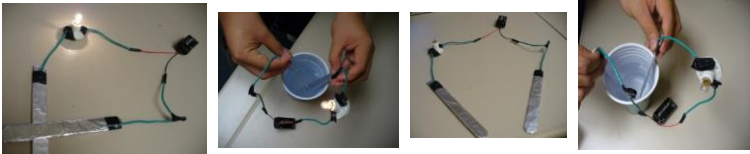
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