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Posted by Anonymous on Wed, 2015-02-25 09:06

Homeostasis - Osmoregulation: I am looking for an interesting and unique experiment relating to osmoregulation/salt-water balance. Do you have some recommendations?

Voting:



No votes yet

Year Level:

Senior Secondary

Laboratory Technicians:

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Submitted by sat on 25 February 2015

Answer updated 17/01/2023

Potato Cubes and Ribena

The experiment from this website has been tried and works well: <https://practicalbiology.org/exchange-of-materials/osmosis/investigating-the-effect-of-concentration-of-blackcurrant-squash-on-osmosis-in-chipped-potatoes>

The experiment involves identifying how much Ribena needs to be diluted before it becomes isotonic to potato cubes.

Students then do their own investigation with a fluid of their own choice (i.e., lemonade, orange juice, etc.) to determine the correct dilution to give to a dehydrated child (i.e., with the same solute concentration as the potatoes).

Dissolving Egg Shells

This experiment uses vinegar to dissolve egg shells: <https://untamedscience.com/biology/cells/osmosis/>

The shell-less eggs are placed in hypotonic, hypertonic, and isotonic solutions, and the change in mass is observed. Note that this experiment requires attention over a few days (unless you prepare the eggs in advance for the class).

Source URL:<https://assist.asta.edu.au/question/2673/homeostasis-osmoregulation>