

High Fructose Corn Syrup– a mini iCons case study

Inception:

Come to class having read the following two articles:

Princeton news, March 22, 2010 – Princeton researchers find that high fructose corn syrup prompts considerably more weight gain.

<http://www.princeton.edu/main/news/archive/S26/91/22K07/>

The Atlantic, Aug 13, 2012 – Study: High fructose corn syrup no worse than ‘real’ sugar.

<http://www.theatlantic.com/health/archive/2012/08/study-high-fructose-corn-syrup-is-no-worse-than-real-sugar/261014/>

Note: the actual study is attached to this summary.

Engagement:

Class discussion – These two outcomes could not be more different. Why?

Compile a list on the board. When discussion dwindles, have students break-out in their teams and discuss what they need to know in order to do a follow-up study that could confirm one study or the other. Check in at 10 minutes and see if they need more time/guidance. Teams will report answers to the whole class.

Expected answers: composition of HFCS and other sugars, how HFCS works in the body, how other sugars work in the body, genetics, what other natural or synthetic biochemicals have similar effects, what role do saccharides play in our diet and body?

Research:

In their teams, students do the background research necessary to answer the questions they have come up with. Look for holes, errors, or ways to improve the two studies. They need to come to the next class period with a list of vocabulary and/or concepts that remain unclear.

Create:

Design a new study – how will you avoid the pitfalls you may have found in these other studies? What is your hypothesis? Why is this your hypothesis?

Length is less important than clarity, thoroughness, and use of scientific principles, but ~3 pages (including figures) should be sufficient to do that.

Reflect:

In what way, if any, does this research and new knowledge affect you?

What iCons learning goals did you meet with this case study, and how?

How could you adapt this process to another subject?