

Science Time

Program Content for September 14, 2016

Read the article “FDA bans 19 antiseptic chemicals from soaps” on page A1 of the Saturday, September 3, 2016 edition of The Seattle Times.

Objectives

- I can explain how and why some antimicrobial chemicals were banned.
- I can explain the impact that banned antimicrobial chemicals may have on human health.

Next Generation Science Standards (NGSS) connection

- Scientific knowledge is open to revision in light of new evidence

Pre-reading and Vocabulary: Define each term and then use it in a sentence to demonstrate your understanding.

1. antibacterial
2. ubiquitous
3. infertility
4. hormone
5. antibiotics

Comprehension Questions

1. What was recently banned by the FDA?
2. Why was the ban put in place?
3. What is the name of the two ingredients banned?
4. What has some limited research suggested about these two ingredients you listed above?
5. What was the total number of chemicals the FDA took action against?
6. What other products besides soap is being investigated by the FDA in regards to antibacterial ingredients?
7. What concerns do public-health experts have of antimicrobial chemicals in everyday products?
8. Explain the results surrounding triclosan safety in laboratory animals?
9. Given the results you explained above, what concerns did scientists have for the impact that triclosan may have on humans?
10. What is a superbug?

Prompts and Extensions

1. Watch this [news story](#) (and read the associated article) about the recent antimicrobial chemical ban.
2. Much of the concern about antimicrobial chemicals stems from the impact they could potentially have on human hormones. Learn more about hormones and the endocrine system [here](#).
3. In this article you read about the scientist Rolf Halden who has been tracking the antimicrobial issue for years. Based on his research he concluded that the chemicals

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themselves had no benefit, yet could be found all around us. Hold a class discussion to answer the following questions:

1. How do you think a chemical with no proven benefit became so widespread?
2. Why do you think it took so long for the FDA to ban some of the antimicrobial chemicals?
3. Now that the chemicals are in the environment what do you think can/should be done?
4. What steps/actions do you think the FDA could take to prevent future chemicals from being used in everyday products?