

QUILLS

Queen's University Indigenous Land-Based Learning STEM Queen's University Biological Station

Law of Water Activity



Chief Seattle (1854) stated:

"Humankind has not woven the web of life. We are but one thread within it. Whatever we do to the web, we do to ourselves."

In other words, what goes on to the land, will end up in the water.

In this activity, you will understand just how many chemicals can be found in our local water supply. You will also explore the potential impact of these chemicals on the water and its surrounding ecosystems.

Contaminants that can harm the environment are commonly found in "Pharmaceuticals and Personal Care Products" or "PPCPs" that we use every day. This means that the products we rely upon in our DAILY routines negatively impact the ecosystem we are a part of.

Step 1.

Choose 2 common chemicals/contaminants commonly found in PPCPs from the lists below.

- 1. Benzophenones
- 2. Camphor derivatives
- 3. Cinnamates
- 4. Clear or Nano Zinc
- 5. Cylcopentasiloxane/Cyclomethicone
- 6. Methylisothiazolinone
- 7. Oxtinoxate/octyl methoxycinnamate
- 8. Oxybenzone
- 9. Plastic microbeads
- 10. BHA and BHT
- 11. Coal tar dyes: p-phenylenediamine and colours listed as "CI" followed by a five-digit number
- 12. DEA-related ingredients
- 13. Dibutyl phthalate
- 14. Formaldehyde-releasing preservatives
- 15. Parabens propylparaben, benzylparaben, methylparaben, or butylparaben
- 16. Parfum (a.k.a. fragrance)
- 17. PEG compounds
- 18. Petrolatum
- 19. Siloxanes
- 20. Sodium laureth sulfate
- 21. Triclosan





Queen's University Indigenous Land-Based Learning STEM Queen's University Biological Station

Step 2.

Research this chemical/contaminant. Use the following questions to guide your research.

- 1. What contaminant did you choose to focus on?
- 2. What sort of everyday products is this chemical found in?
- 3. What is the impact of this contaminant on the environment?

Step 3.

Visit your local grocery/drug store and look at the labels of some everyday products. Is your contaminant listed in the ingredients list?

Record the products you find that have that contaminant.

Step 4.

With your research and findings from your local store, make a social media post in a format of your choosing, to educate others on the impact of this contaminant. In your post, answer the following questions:

- 1. What contaminant did you choose to focus on?
- 2. What sort of everyday products is it found in?
- 3. What is the impact of this contaminant on water?
- 4. How can we limit the use of this product? Are there any cleaner, more sustainable products that we can use as alternatives?

5. How can we educate others about the contaminants found in products we use every day?

6. Does this make you think differently about your impact on local water supplies?

