



## Healthier Skin with True Botanicals

Hillary Peterson, True Botanicals  
California

### ☀ Call to Action

Help Hillary inspire more businesses in the personal care industry to pursue sustainability by visiting [truebotanicals.com](http://truebotanicals.com).

### ☀ Values

- Imagination
- Entrepreneurism
- Health
- Environmentalism

### ☀ Lessons Learned

**Our quality of life is linked to the quality of the air we breathe.** If you want to improve the quality of your life, you must improve the quality of your environment.

**Educate yourself, research, and be critical about conventional wisdom.** Knowledge will protect you.

**Lead with the truth and people will be drawn to your cause.** If you want to change the world, start by telling the truth about why it needs to be changed.

**Growing up just outside of Los Angeles, Hillary Peterson was aware of the role toxic environments could have on one's health.**

She remembers the smog that always lingered over the city. "It was so bad we couldn't play sports outside after school. I'd go home and have to stay inside." When she was 32, Hillary was diagnosed with cancer. And when she learned that the toxic chemicals found in women's personal care products were being found in their babies' blood, she was furious. "How could the beauty industry be selling products with these toxins in them to the people they were claiming to want to help look and feel better?" she says. Her response was to start True Botanicals—a sustainable organic cosmetics enterprise. With its rigorous dedication to using organic ingredients and processes, True Botanicals has become a guidepost for the cosmetics industry, leading toward a more sustainable future. Laura Dern has used her platform as an actress to champion important environmental issues, including organic cosmetics. She has helped guide True Botanicals "with all the dynamism I could have expected, and more," says Hillary.

### ☀ Language Arts

**What is air quality?** Working in groups (between 3 and 5 people), choose a region of the United States, and research the concept of air quality. How it is measured? What is the air quality like for the part of the U.S. you have chosen? How is it affecting the local population? Present your findings to your class, and draw three conclusions from the data you researched.

**What is the link between our environment and our health?** Create a series of 6-8 digital posters in which you explain the effects of air pollution, plastic pollution, and lifestyle on things like types of cancer, percentage of cancer diagnoses per year in areas with higher

pollution, and preventative measures people can take to minimize the effects of the toxic substances they come into contact with every day (like cosmetics).

**This is a partial list of harmful chemicals found in cosmetics:** Formaldehyde, Paraformaldehyde, Methylene Glycol, Quaternium 15, Mercury, Dibutyl Phthalates, and Diethylhexyl Phthalates. Choose three of these compounds and research their toxicity (that is, the negative effects they have on the human body). What conclusions can you make from the data you found? Record a 3-5 minute video in which you share your findings and your conclusions with the public.

**Hillary draws inspiration from other pioneers in sustainability and clean living, like Zach Bush of Farmer's Footprint.** Write a personal essay in which you explain the impact Hillary's story has had on your personal view of the world, the cosmetics industry, our health, and the quest for a sustainable future. How has she inspired you?

## STEM Activities

**Select a hygiene product you use regularly (such as shampoo, lotion, makeup, deodorant, etc.) and research the ingredients used.** Why is that ingredient included (what is its function)? Are any of them toxic to the human body or the environment? What are some nontoxic alternatives to these chemicals?

**Using this [lesson plan on the endocrine system](#)<sup>1</sup>, learn about 3 types of endocrine disruptors (bisphenol A (BPA), triclosan, and phthalates), and the impact they have on the human body.** Then evaluate whether or not parabens, a preservative commonly used in cosmetic products, are endocrine disruptors by analyzing their molecular structure.

**In this activity from [PBS Learning Media](#)<sup>2</sup>, students will learn why cell growth is limited and why it requires cell division.** They will explore the different phases of mitosis and learn about uncontrolled cell division - cancer, the oncogenes that cause it, and possible treatments for it.

## Sustainability Innovations

**As the fashion industry continues to grow, innovations are being developed at rapid rates.** This [article](#)<sup>3</sup> by Green Matters highlights 5 sustainability innovations from 2021 that have changed their industries. Assess the products in the article and identify a beauty product in your daily regimen that should become more sustainable.

**Hillary's battle with cancer was the event that started the journey of True Botanicals.** Her realization that the toxic products that go on your skin affect your body initiated the development True Botanicals. Assess the [Clinical Trial Results](#)<sup>4</sup> of three True Botanical products and compare them to their competitors. As a user, would you feel more comfortable using True Botanicals products, based on the results?

**In this [article](#)<sup>5</sup> by the David Suzuki Foundation, the "dirty dozen" cosmetic chemicals found in beauty products are highlighted.** Research two of your favorite products, one sustainably-conscious brand, and one every-day use brand. Do any of these products contain any of the listed chemicals?

## Sustainability Career Pathways

**Sustainable Cosmetics Industry.** Designers, chemists, marketers, managers, shopkeepers, production associates, salespersons, and other personnel are all part of the cosmetics industry, which was worth [\\$380 billion in 2019](#)<sup>6</sup> and is projected to grow to \$464 billion

by 2027. As consumers increasingly seek to avoid toxins, the subsector of sustainable cosmetics is growing even faster. This [Teen Vogue article<sup>7</sup>](#) explores the growing field of “Sustainable Beauty,” its challenges, and the opportunities within this field.

**Eco-entrepreneur.** With toxic chemicals and unsustainable materials hidden in so many products, there are countless opportunities to reinvent products in healthy and sustainable ways—from cosmetics to cookware, from clothes to cars. If this is a career path you’d like to consider, [learn more about becoming an eco-entrepreneur here<sup>8</sup>](#).

**Green Chemist:** Designing sustainable cosmetics requires experts in chemistry. [Explore the field of green chemistry<sup>9</sup>](#) and ways you could make a [career in chemistry<sup>10</sup>](#) to help build a greener economy.

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1 <https://www.lifescitrc.org/resource.cfm?submissionID=9844>

2 [https://mass.pbslearningmedia.org/resource/tdc02.sci.life.cell.lp\\_divide/cell-replication-and-cancerous-cells/](https://mass.pbslearningmedia.org/resource/tdc02.sci.life.cell.lp_divide/cell-replication-and-cancerous-cells/)

3 <https://www.greenmatters.com/p/sustainable-beauty-products>

4 <https://truebotanicals.com/pages/clinical-trial-results-independent-scientific-clinical-studies-randomized-comparative-double-blind-trials>

5 <https://davidsuzuki.org/queen-of-green/dirty-dozen-cosmetic-chemicals-avoid/>

6 <https://www.alliedmarketresearch.com/cosmetics-market>

7 <https://www.teenvogue.com/story/a-deep-dive-sustainable-beauty>

8 <https://ecoally.co/becoming-an-eco-entrepreneur/>

9 <https://www.epa.gov/greenchemistry/basics-green-chemistry>

10 <https://destinationsscanner.com/is-chemical-engineering-a-good-career-in-year/>

