Indoor versus Outdoor Air Pollution: What's the Difference?

Guide for Curriculum Unit 11.04.02
by Deborah James-Johnson

The purpose of this unit is to provide information to fellow teachers of environmental science in the middle- and high-school grades about environmental hazards to human health and how to make our students more responsible stewards of our environment. The ultimate aim is a healthier and sustained environment. It is important for students to be educated about potential health risks within their homes; even if they may not be able to change the practices of the adults in their homes, they will grow to accept the responsibility of protecting the environment.

We are part of the environment, with 60 percent of our bodies composed of water; we breathe in about 12,000 quarts of air every 24 hours. Understanding choices about chemicals we purchase and bring into our homes will improve our indoor air environment. There are natural cleaning products we can substitute for more dangerous, toxic products. Making students aware of the dangers of smoking tobacco, particularly in the home, will greatly improve their health and the health of their families. Students will become aware of recycling and burning of fossil fuels and effects on the environment.

Activities will include students' taking a personal inventory of products they use in their homes. Students will also engage in research to compare and contrast indoor and outdoor air pollution. Students will use different air pollution monitoring devices to discover the concentration of particulates in the indoor air, both at school and at home.

(Recommended for Environmental Science, grades 6-12)