



HUMBER ARBORETUM ECO CENTRE



ECOLOGICAL FOOTPRINT

INTERESTING FACTS

- ✦ By the age of only six months, each Canadian has consumed as many resources as the average person in the developing world consumes in his or her lifetime.
- ✦ One litre of oil can contaminate a million litres of ground water.
- ✦ Twenty-seven percent of all food produced in North America is wasted.
- ✦ Only 1% of all the stuff we buy in North America is used for longer than 6 months.
- ✦ More than half of the energy used by a computer is associated with the monitor. LCD monitors use 80-90% less energy than conventional cathode ray tube monitors (CRT).
- ✦ Tree planting around your home can result in average energy cost savings of 20-25%, as compared to an unsheltered house.
- ✦ If every Canadian household replaced one standard 60-watt incandescent light bulb with a 20-watt compact fluorescent light bulb, we could prevent 400,000 tonnes of greenhouse gases entering the atmosphere (same as removing 66,000 cars from the road) and save \$73 million a year in energy costs.



COOL ACTIVITIES

The Earth as an Apple

(How much arable land is on Planet Earth?)

Materials: One large apple, sharp knife

Procedure:

-slice the apple into quarters—set aside three of the quarters, representing the oceans of the world

-slice one of the quarters in half giving two, 1/8 pieces—one of the pieces represents land inhospitable to people (polar areas, deserts, swamps, high, rocky mountainous areas); the other piece is where people live but not necessarily grow foods necessary for life.

-slice a 1/8 piece into four sections (giving you four, 1/32nd pieces of the whole apple)—set aside three of these pieces representing areas too rocky, wet, cold, steep or having soil too poor to actually produce food.

(This also includes land that could produce food but are buried under cities, highways, suburban developments, shopping centres, and other structures that people have built).

-carefully peel the remaining 1/32 piece of apple. The tiny piece of peel represents the very thin surface of the earth's crust upon which humankind depends. On average less than five feet deep, it is a fixed amount of food-producing land.



REVIEW QUESTIONS

1. Name three ways you can save gas when driving a car? (ANS: No idling, carpool, hybrid or smaller engine vehicle, tires inflated to the same pressure, plan your trips to make them more efficient.)
2. What are some reasons why ethanol from corn may not be the answer to the increasing demand on fossil fuels? (ANS: Raises the price of corn (used for food) in developing countries, increased cost of feed corn for poultry, swine and cattle producers. Agricultural land is being used to grow fuel instead of food, the process of turning corn into ethanol uses a tremendous amount of energy and fossil fuels.)
3. What are some ways that climate change will affect Canada? (ANS: Longer heat waves, poor air quality, smog, more severe weather (tornadoes, thunderstorms, ice storms), rising sea levels, depleted fresh water resources, impact on wildlife (both animals and plants), forest fires, crop failures, droughts.)
4. A recent study suggests that in the peak of winter, Canadians voluntarily idle their vehicles for a combined total of more than 75 million minutes a day – equal to one vehicle idling for 144 years.

