

Heavy Metal

Trashed Technology Is Turning Into a High-Tech Hazard

Note: This text was first published in 2007.

It's your birthday, and you just opened your biggest gift—a sleek silver laptop. You can't wait to instant-message your friends with the news, but first you have to get rid of your old desktop computer. Do you just toss the monitor and keyboard in the trash?

Not anymore.

Seventeen states have passed laws prohibiting people from throwing away **electronic waste** with regular garbage. Electronic waste, or e-waste, includes televisions, computers, and cell phones.

Although high-tech gadgets don't make you sick when you use them, they might when they are destroyed at the dump. Some e-waste contains heavy metals that can be harmful to humans.

Cell phone batteries contain a chemical called cadmium that can cause damage to kidneys. Some computer monitors contain lead, which can cause brain damage. Flat TV screens are made with mercury, which may cause injury to the **nervous system**. The nervous system, which includes the brain, spinal cord, and nerves, controls body activities. Those metals may also leak toxins into the ground or give off pollutants when burned.

"The chemicals inside some of these electronics read like a who's who of the periodic table of elements," New Jersey Assemblyman Reed Gusciora told reporters for the Passaic County *Herald News*.

The legislation requires e-waste to be dumped at **hazardous**, or dangerous, waste disposal sites rather than in landfills. Several other states are considering similar laws. California is also pushing for a law requiring manufacturers to stop using hazardous materials in cell phones and iPods.

Legislators aren't the only people taking aim at e-waste. Environmentalists are urging people to recycle their outdated equipment.

"It's just a waste...to not recycle," Patrick O'Shaughnessy, an associate professor of occupational and environmental health at the University of Iowa, told *The Daily Iowan*. "Allowing dangerous [chemicals] to **leach**¹ into the environment for decades seems irresponsible."

What Can You Do?

Reduce. Be a responsible shopper, and take care of your electronics so they will last longer.

Reuse. Donate or sell your old high-tech gadgets. Schools and community centers often accept donations of electronic equipment.

Recycle. To find a responsible recycler, contact a local or state environmental group.

¹ **leach:** to carry off by dissolving soluble components in a liquid; to mix with water and spread out

Name: _____ Date: _____

1. What have seventeen states passed laws prohibiting people from throwing away?
- A aluminum cans
 - B plastic bottles
 - C electronic waste
 - D regular garbage
2. The text discusses the effects of electronic waste. What is one effect electronic waste can have, according to the text?
- A Electronic waste can improve the quality of the soil.
 - B Electronic waste can improve the quality of the air.
 - C Electronic waste can cause lung damage.
 - D Electronic waste can cause brain damage.
3. Read this sentence from the text: "Some e-waste contains heavy metals that can be harmful to humans."

What evidence in the text supports this statement?

- A "Cell phone batteries contain a chemical called cadmium that can cause damage to kidneys."
 - B "Environmentalists are urging people to recycle their outdated equipment."
 - C "'It's just a waste...to not recycle,' Patrick O'Shaughnessy, an associate professor of occupational and environmental health at the University of Iowa, told *The Daily Iowan*."
 - D "Be a responsible shopper, and take care of your electronics so they will last longer."
4. Read these sentences from the text: "'It's just a waste...to not recycle,' Patrick O'Shaughnessy, an associate professor of occupational and environmental health at the University of Iowa, told *The Daily Iowan*. 'Allowing dangerous [chemicals] to leach into the environment for decades seems irresponsible.'"

Based on this information, what might O'Shaughnessy's attitude be toward legislation that "requires e-waste to be dumped at hazardous, or dangerous, waste disposal sites rather than in landfills"?

- A O'Shaughnessy is probably against this legislation.
- B O'Shaughnessy probably supports this legislation.
- C O'Shaughnessy probably does not care about this legislation.
- D O'Shaughnessy probably thinks this legislation will hurt the environment.

5. What is the main purpose of this article?

- A to describe the function of the nervous system
- B to explain how new laws are targeting the disposal of e-waste
- C to list the chemicals found in e-waste
- D to persuade people to buy fewer computers and cell phones

6. Look at the box at the end of the article. What is an example of a place that often accepts donations of electronic equipment?

7. What is something you can do to help stop electronic waste? Support your answer with evidence from the text.

8. Choose the word that best completes the sentence.

_____ using a computer will not make you sick, a computer can become harmful to people when destroyed at a dump.

- A So
- B Although
- C Instead
- D Before

9. Answer the following questions based on the sentence below.

Environmentalists urge people to recycle old electronic equipment instead of placing it in landfills because e-waste can do harm.

Who? environmentalists

(do) What? _____

Why? _____

10. **Vocabulary Word:** decade: a time period of ten years.

Use the vocabulary word in a sentence: _____
