

## Teacher Page: Core Case Study 16

**Unit: 4**

**Grade Level Indicator:**

**Description:** Introductory Case Study

**Time:** 25minutes

**Materials:** Book page 380

**Procedures:**

**Warm-up:**

**Instructional Strategies:**

**Assessment:** Grade questions, student participation

**Variations:** Do questions orally with teacher led instruction

**Interdisciplinary Connections:** Science

**Sample Data/ Answers:** The answer key follows the student page.

# Core Case Study Chapter 16

## Solid and Hazardous Waste

### *E-Waste— An Exploding Problem*

1. What is e-waste?

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2. Where does most e-waste end up being disposed?

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3. 50-80% of the U.S. e-waste is shipped to China, India, Pakistan, Nigeria and other developing countries where labor is cheap. How or why is has this become a problem?

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4. Explain the **cradle-to-grave** approach.

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5. What steps, if any, has the United States taken to address the e-waste problem?

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6. Why is recycling and reuse not going to be the answer to the e-waste problem worldwide?

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7. What toxic and hazardous wastes are produced by e-waste?

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8. What suggestions does the article make about long-term solutions for the electronic waste problem?

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9. What are 3 things that could be done to reduce e-waste in the United States or in the area of the country where you live?

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## Key

1. E-waste consists of discarded television sets, cell phones, computers, e-toys, and other electronics
2. Landfills and incinerators
3. Children are used to dismantle products and remaining scrap is dumped into water ways and fields or burned in open fires exposing people to dioxins.
4. It requires manufactures to take back electronic products at the end of their useful lives for repair, remanufacture, or recycling and e-waste is band from incinerators and landfills
5. Individual manufactures and States have addressed the issue but nationally we only recycle 10% of the e-waste
6. It will not keep up with explosive production
7. PVC, Brominated flame retardants, lead, and mercury which can contaminate ground water and soil and surface water.
8. Get toxic materials out of electrical and electronic products
9. Recycle and reuse, change materials in electronics, cradle to grave manufacturing