## Digital Device Disposal: safety and security

| Name: | Class: | Date: |  |
|-------|--------|-------|--|
|-------|--------|-------|--|

## Instructions:

- 1. Watch the Recycled Commodities Series: Electronics video
- 2. Complete table 1
- 3. In your teams, research what you should actually do if you need to get rid of an old, discarded piece of electronics.
  - a. What are some of the issues that need to be considered?
  - b. Describe some programs or companies that recycle responsibly.
- 4. Your teacher will assign you one of the materials from Table 1.
  - a. Research the potential for recycling these materials.
  - b. Record the challenges and potential relative costs associated with your component and how effective and efficient the current methods are. Also, include any environmental impacts
    - i. Use the links provided in the Additional Resources section to start your research.

Table 1: Percentage of iPad by Mass

| Materials/Component                                    | Mass (g) | Percent of iPad2 |
|--|----------|------------------|
| Display (aluminosilicate glass)                        | 140 g    |                  |
| Aluminum   | 135 g    |                  |
| Plastics   | 17 g     |                  |
| Other metals (steel, copper, gold, nickel, and silver) | 25 g     |                  |
| Circuit board (mostly silicon)                         | 38 g     |                  |





| Battery (lithium) | 130 g |  |
|-------------------|-------|--|
| Glass             | 105 g |  |

## Reflect and Apply:

| • | If you had an old electronic device, explain 2-3 different options of what you could do with it to ensure |
|---|---|
|   | minimal impact on the environment. Are some options better than others?                                   |

- Consider whether or not it is cost-effective to recycle these materials.
  - Do you believe recycling the materials is a civic responsibility regardless of the cost-effectiveness? Why or why not?

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