

PhoneApes Cell Phone Recycling Project

Action Project Lesson Plan

Purpose

Students will launch a school-wide program to encourage responsible waste management of electronic materials.

Overview

PhoneApes is a cell phone recycling program run through the Toronto Zoo, designed to protect the habitat of the lowland gorilla. Cell phones use the metal *Coltan*, largely mined in the gorillas' habitat. Recycling phones reduces the demand for the metal, effectively saving gorilla lives and habitat. Students will learn about the habitat of the lowland gorilla, and make the link to their habits and behaviours.

Getting Organized

Level: Grade 6

Curriculum Connections:

Science- Biodiversity

Social Studies- Canada's Interactions with the Global Community

Math- Data Management

Length: 45-60 minutes

Materials:

- Eco Adventure Guides* (Action Project Planning Pages)
- PhoneApes collection boxes (available by contacting phoneapes@torontozoo.ca)
- Poster boards
- Markers
- Tape
- World map
- Pictures of gorillas
- Paper
- Pencils

Teacher Background

This award-winning cell phone recycling program run by the Toronto Zoo is a low maintenance, effective way to involve students in an electronic recycling project, and contribute to gorilla habitat conservation efforts.

Illegal mining in Africa of the raw material Coltan, and its refined metal Tantalum, used in the production of electronics such as cell phones, laptops, DVD players and game consoles, disrupts the habitat of the lowland gorilla. Reclaiming metals from discarded phones lowers the demand for new raw materials, which means less disruption to gorilla habitat. In addition, the money raised from the collection is channeled back into gorilla conservation projects in central Africa.

A complete description of the program is available [here](#). Multi-theme opportunities can be explored in this project including: lowland gorilla habitat, threatened species, civil war and its impact on the African people, growing e-waste implications, corporate stewardship initiatives (recycling phones), and rethinking our need for the 'newest' electronics.

Activity

1. Provide a brief overview of the PhoneApes program highlighting: the metal mined and used in cell phones and the implications to the gorillas and people of Central Africa, the recycling effort, and the conservation programs to protect gorilla habitat. Visual aids such as a world map, pictures of lowland gorillas, and the collection box would be of value.
2. A multi-pronged awareness campaign could involve the following tasks for groups of students:
 - a. researchers to provide content for posters and announcements
 - b. artists to make posters about the plight of the lowland gorillas and the link to our electronics
 - c. eco-announcers to educate about the issue (one announcement might invite fellow students to rethink whether they need the latest version of electronics!)
 - d. monitors to track the collection box over time and develop a data sheet to monitor number of phones collected
 - e. videographer(s) to document stages of project
 - f. coordinators to ensure phones are delivered to Toronto Zoo staff
3. Determine a highly visible location for the collection box, and ensure students have been informed (i.e. posters, announcements, etc.) before putting it in place.
4. Monitor the box regularly. Once a significant number of phones have been collected, arrange for delivery of the phones. Record the number of phones collected on the data sheet.
5. Create a progress report and consider sending it to interested parties such as your principal, field centre staff, program sponsors, and others listed below (see resources). Consider sharing pictures of your collection site and data, which includes the number of cell phones collected and how long you were collecting. Let us know what impacts this project had on you.
6. Consider sending letters of concern to the appropriate contacts.

Extension:

TAKE IT LOCAL!! Just as the lowland gorilla is an endangered species in Africa, you will also find endangered and threatened species much closer to home. Have your class research which plant and animal species are at risk of disappearing in your area. Brainstorm some project ideas on how you can help locally. Finally, decide on a plan and get started! Think about planting an appropriate native tree or wildflower species that is at risk, or, consider a project that creates habitat for another species such as a butterfly garden to attract the monarch butterfly or habitat for birds.

Online Resources

The Gorilla Foundation | <http://www.koko.org/>

Toronto Zoo's PhoneApes Program | <http://www.torontozoo.com/conservation/PhoneApes.asp>

Ontario Species at Risk | www.mnr.gov.on.ca/en/Business/Species/index.html