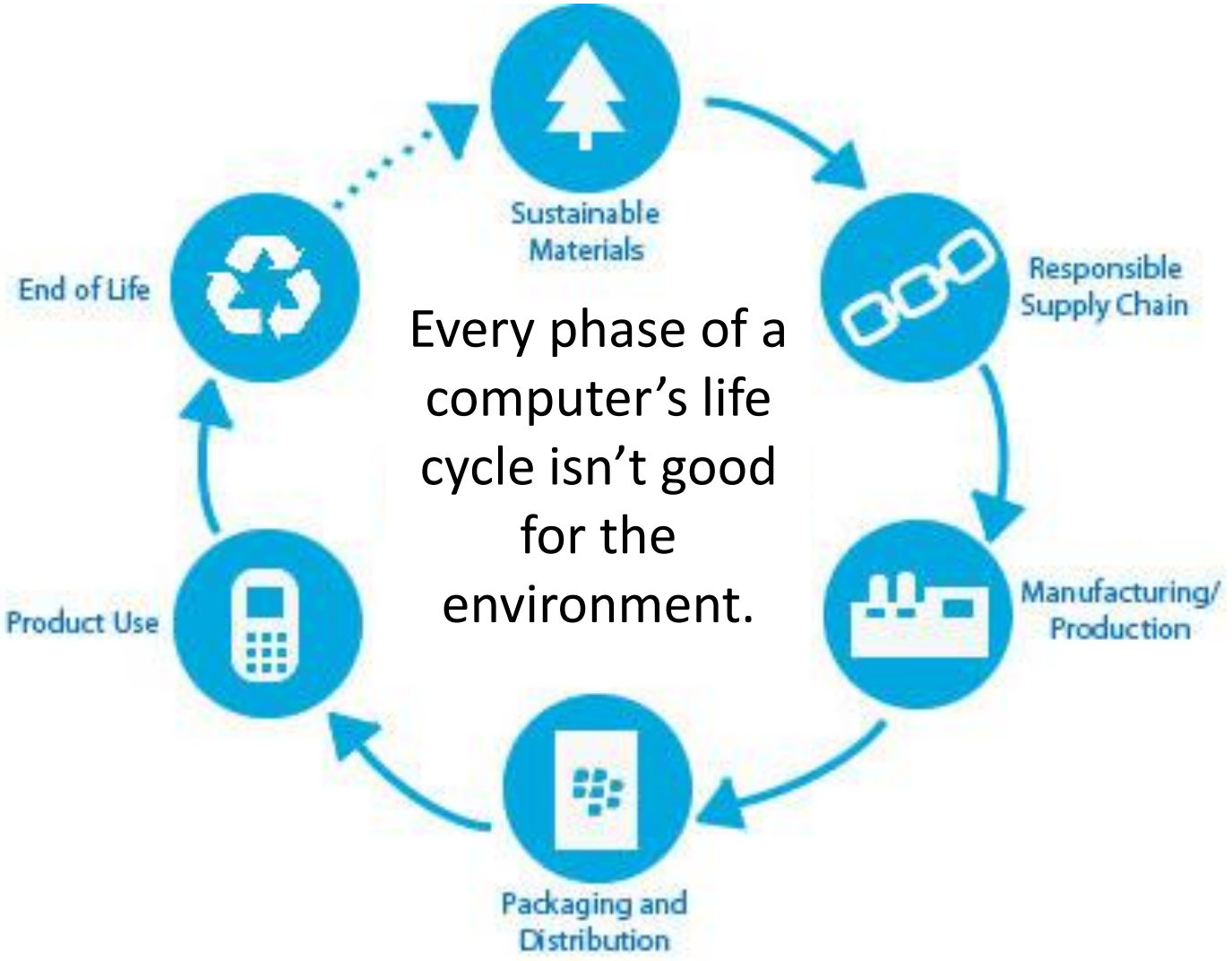
E-Waste

Environmental Impact of Computers

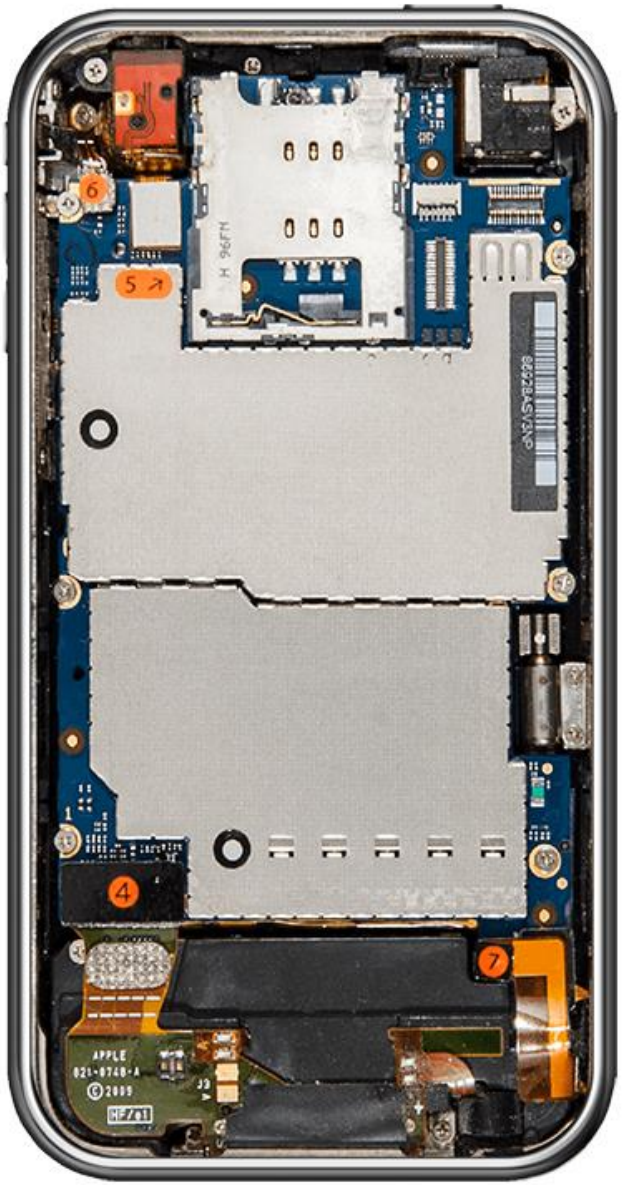

Sustainable Materials
Responsible Supply Chain
Manufacturing/ Production
Packaging and Distribution
Product Use
End of Life
Every phase of a computer's life cycle isn't good for the environment.

Circuit Boards

- Silver
- Gold
- Tin
- Silicon
- Aluminum
- Copper

Casing, etc.

- Iron
- Cadmium
- Lead
- Zinc
- Coltan




All of these substances must be mined.
20


Mining can involve deforestation and toxic waste in the extraction process.

A microprocessor takes 1.6 kg of fossil fuels and 31 kg of water to produce.

Coltan, located in Congo, 525 tons/year to USA Miners, Parks, bush-meat, Gorillas, Rwanda (illegal).


YES, YOU CAN MAKE A DIFFERENCE
RECYCLE YOUR OLD CELL PHONES TO REDUCE DEFORESTATION AND HELP SAVE GORILLAS!
Through the Phone Apes program The Toronto Zoo has contributed almost 5000 cell phones since 2015. 1 million recycled cell phones yields: 35,000 lbs of copper, 770 lbs of silver and 75 lbs of gold.
Funds raised by the PhoneApes program have been used in Africa to provide veterinary services to Gorilla's in Virunga National Park, support gorilla orphan sanctuaries and reintroduction of great apes to the wild.
Phone Apes™
recycling
cell phones for
conservation

Help Save Great Apes, Recycle Your Cell Phone!

Why recycle cell phones at the Toronto Zoo?

- Help protect great apes and their habitat in Africa.
- The refined coltan, called tantalum, in cell phones can be re-used and the demand for coltan reduced.
- Funds raised through the Toronto Zoo's Phone Apes cell phone recycling program goes directly to support great ape conservation projects in Africa.

What is Coltan?

Coltan is a mineral found in many electronic devices, including cell phones.

What does Coltan have to do with gorillas?

- The gorilla serves as an ambassador species for the Phone Apes program to help protect indigenous African biodiversity.
- More than 60% of the world's coltan is mined in gorilla habitat.
- Mining for coltan has led to rebel-controlled illegal mining, habitat destruction, and poaching of gorillas for bushmeat, traditional medicine and the pet trade.

Coltan mining in Rubaya, Congo

Phone Apes™
recycling cell phones for conservation

Phone Apes is the Toronto Zoo's cell phone recycling program.

Visit torontozoo.com/conservation/phoneapes.asp to find out how you can get a Phone Apes collection box for your school or work!

Coltan mining in Rubaya, Congo

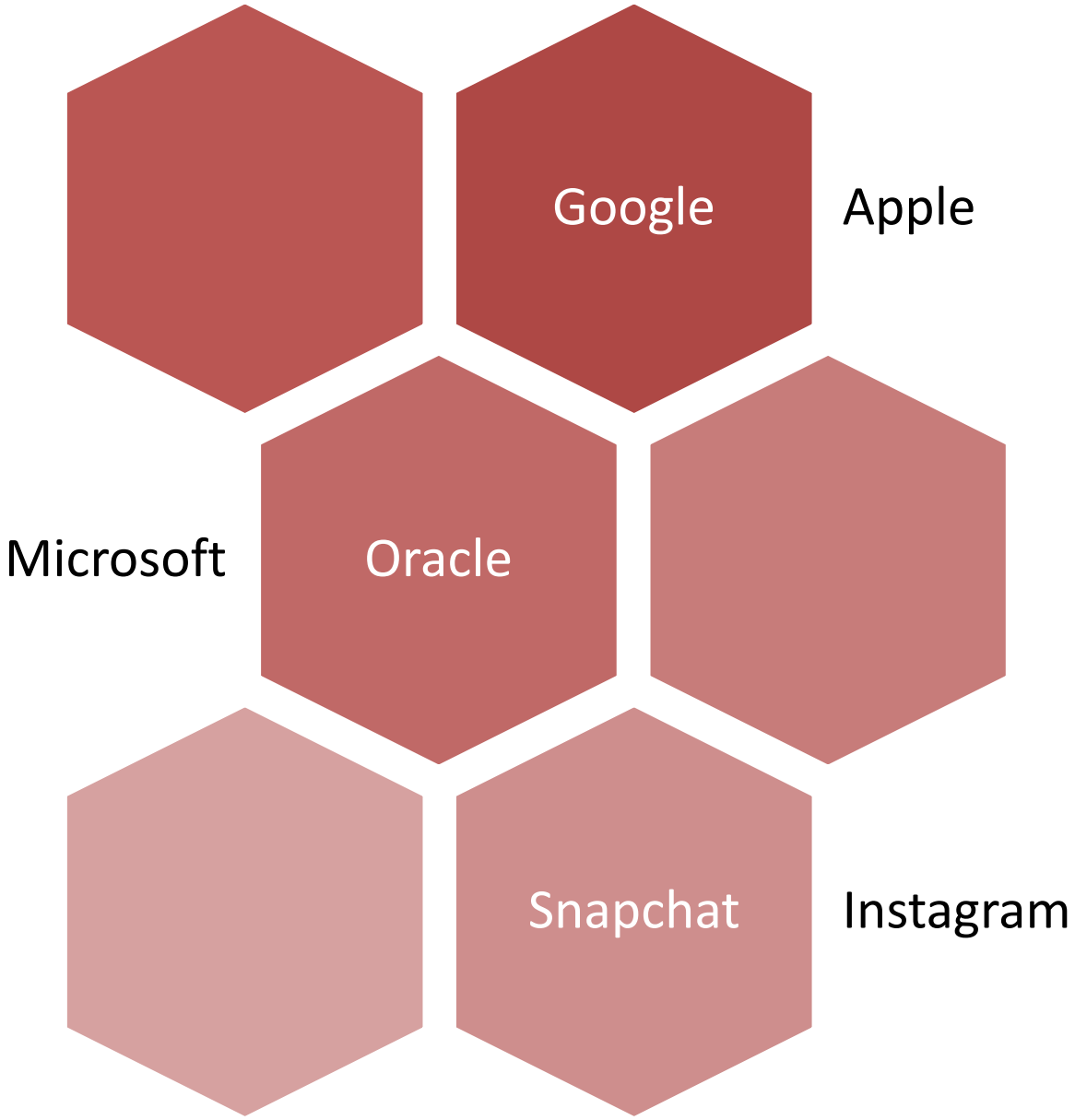
Phone Apes™

recycling cell phones for conservation

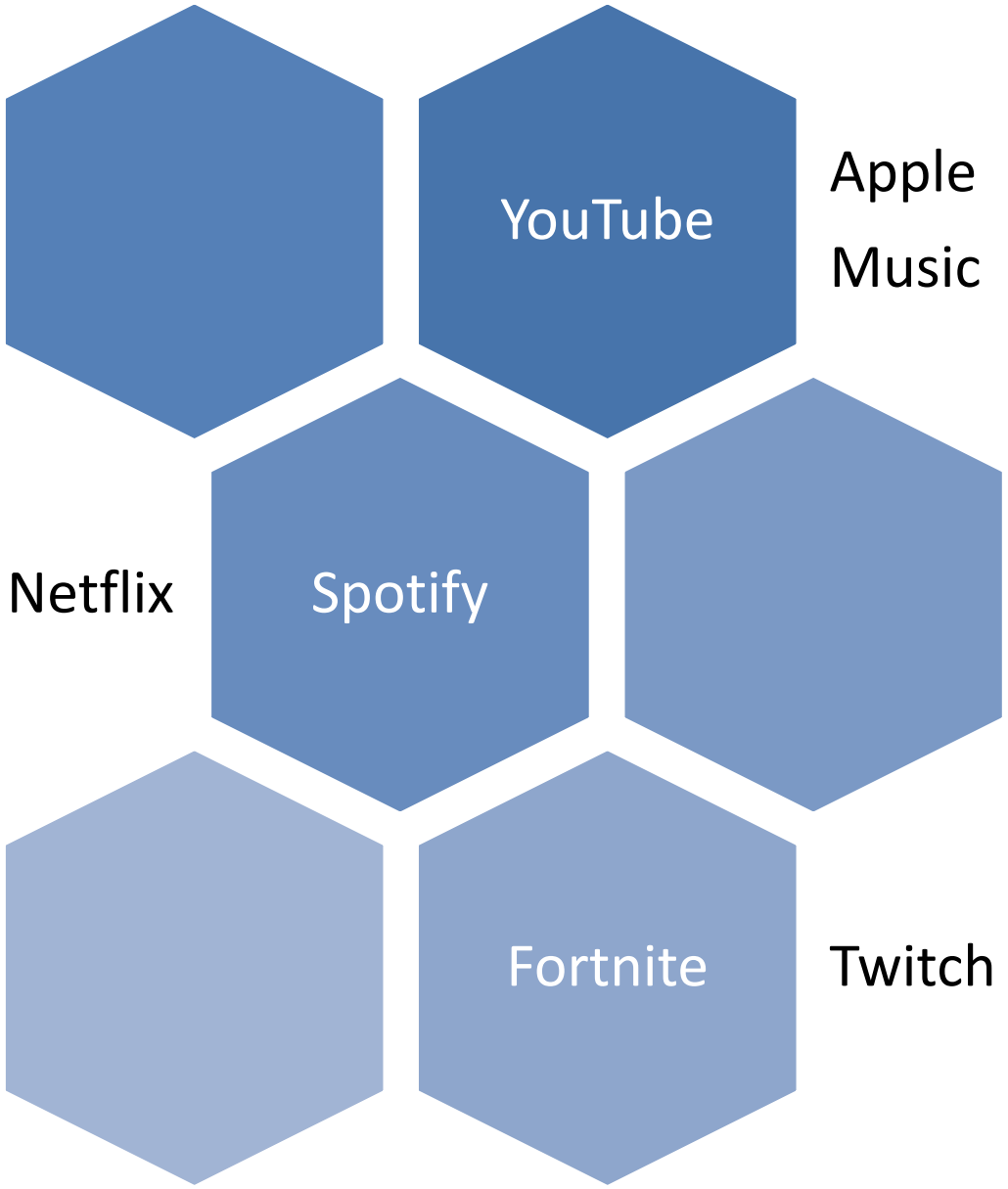
Phone Apes is the Toronto Zoo's cell phone recycling program.


The Troop
A typical gorilla family includes one silverback (the adult male), 3 - 4 adult females and several sub-adult males, called black backs.
In addition there are juveniles, toddlers and nursing infants. Sometimes bachelor groups of males travel on their own.
Phone Apes™
recycling
cell phones for
conservation
Details available at www.phoneapes.com
Phone Apes™
recycling
cell phones for
conservation
Answer the call of the wild.
Recycle your cell phones
at the Toronto Zoo and
help protect gorillas and
their habitat.


AT&T
12:22 AM
73%
What can I help you with?



Companies with large data centers



Companies with streaming services

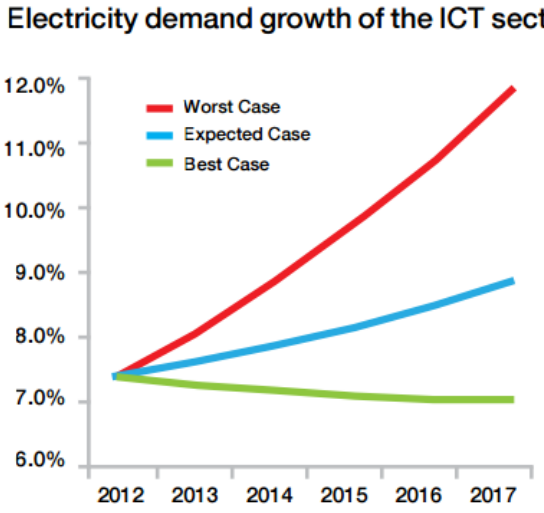
2010 – 2% of electricity used by internet data centers
2017 – 5% of electricity used by the internet data centers

Predicted:
2025 – 20% of electricity used by the internet data centers

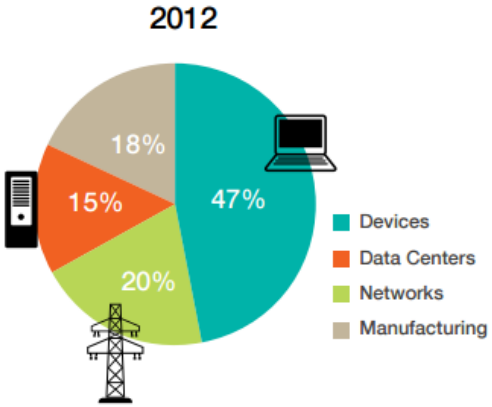
(2018)

In the USA, the data centers – by themselves – used power from 10 large nuclear power plants.

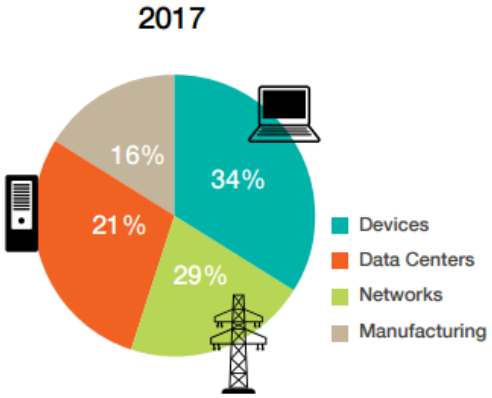
(Apple, Google, Facebook, Instagram…)



Percentage of global electricity consumption due to CE-ICT for best/expected/worst case scenarios. From "Emerging Trends in Electricity Consumption for Consumer ICT"



Main components of electricity consumption for the IT sector, 2012. From "Emerging Trends in Electricity Consumption for Consumer ICT"



Main components of electricity consumption for the IT sector, 2017 estimate. From "Emerging Trends in Electricity Consumption for Consumer ICT"

- The huge increase in streaming and cloud computing will make these figures worse.

E-waste toxins

Toxin	Use	Effect
Lead	Circuit boards, Old Monitors	1. Neurological damage 2. Central nervous system damage 3. Especially dangerous to unborn children 4. Reproductive problems
Beryllium	Circuit boards	1. Respiratory problems
Hexavalent chromium	Cases	1. DNA damage 2. Kidney/liver damage 3. Carcinogenic
Cadmium	Batteries	1. Kidney Damage 2. Heart & respiratory problems.

Digital Dumping Ground in Agbogbloshie, Ghana


Women in Guiyu, China, cook circuit boards

How to Sort Your Waste - Region

Not secure | www.peelregion.ca/scripts/waste/how-to-sort-your-waste.pl?action=search&query=ewaste

Careers Contact Us

Region of Peel
working with you

News About Peel Health Services Public Works Human Services Search

How to Sort Your Waste

What Do I Do With...?

ewaste Find

No items were found matching your query.

Try entering the first few letters of the item to avoid spelling errors. If your item is not in our database, call 905-791-9499 for disposal options.

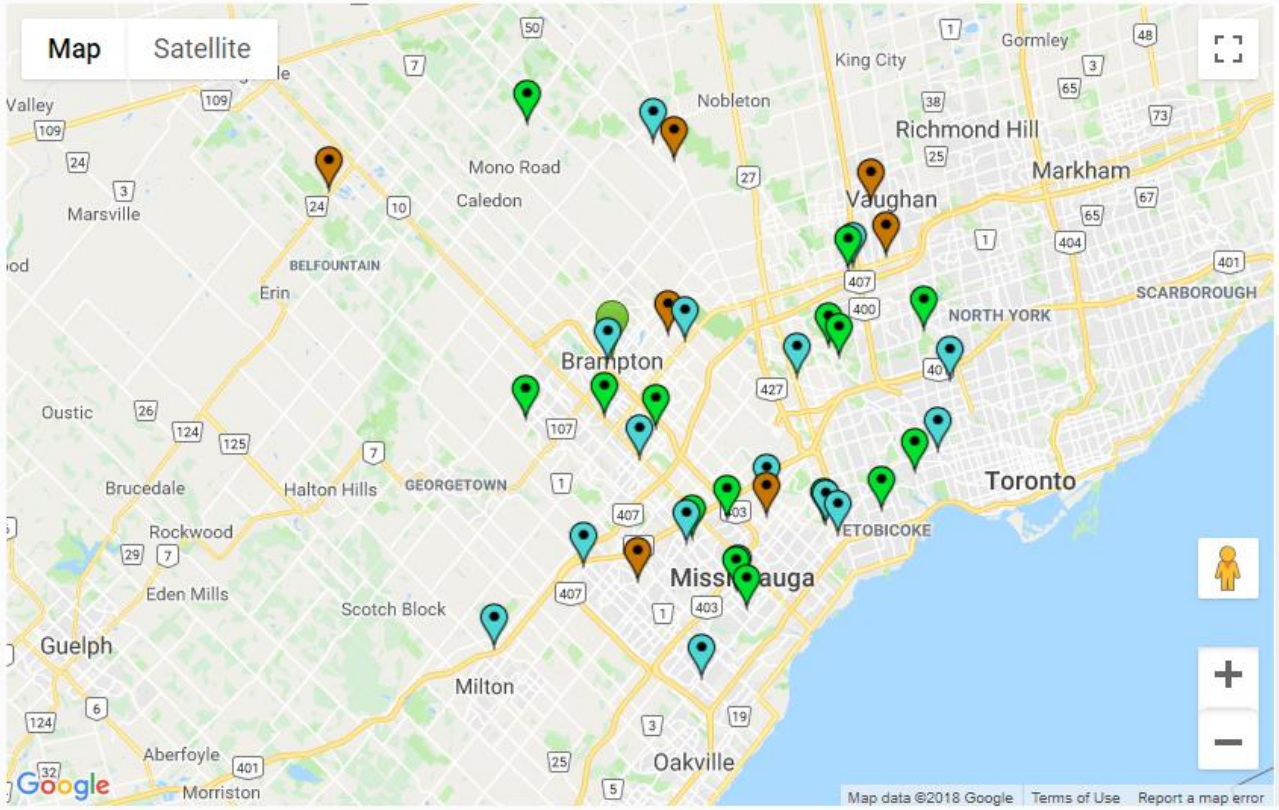
Connect to Peel

Join over 100,000 Peel residents who receive emails featuring the latest Regional news, emergency updates and community events.

Sign up for Connect to Peel

Click on the following for a complete list of items:

E-waste drop off centers



1 Staples - Brampton 410

Return to Retail
80 Great Lakes Dr.
Brampton, Ontario L6R 2K7
905-789-5799
M-F8-9pm;Sat9-6pm;Sun11-5pm

www.staples.ca
0.41 kilometer
Directions

2 Henry's

OES Service Provider
320 Main St. North, Unit 14
BRAMPTON, Ontario L6V 4A3
9054577200
Monday 10:00am-6:00pm, Tuesday 10:00am-6:00pm, Wednesday 10:00am-6:00pm, Thursday 10:00am-8:00pm, Friday 10:00am-8:00pm, Saturday 10:00am-5:00pm, Sunday 12:00pm-5:00pm

ACCEPTED MATERIALS: Desktop or portable computer scanners, desktop printers, portable PC free photo printers, camera dock printers, desk

Waste Electrical and Electronic Equipment (WEEE)

1. Ontario's 2009 act to manage e-waste
2. Batteries and computers can not be thrown away in the regular waste.
3. E-waste is dropped off at recycling centers
4. people pay a "tax" when purchasing electronics
5. tax is used to pay costs to recycle
6. Monitor about $12, Mouse, about $0.30
7. In 2012, it was found that
   (1) People are recycling more e-waste
   (2) the fees weren't covering the costs of recycling.


Region of Peel
Brampton Community Recycling Centre
THRIFT STORE
9 PM K MON TO SUN
8 30AM TO 4 30P M
STORE CLOSED SUNDAY
DONATIONS ACCEPTED
7 DAYS A WEEK
CLOSED FEB 19 FAMILY DAY
385 Chrysler Drive
DONOR WELCOME CENTRE


WARNING
KEEP CLEAR
MAXIMUM
10
STOP


Peel Region's
Household Hazardous Waste Program
Gold Award of Excellence Winner
Recognized by the Solid Waste Association of North America
August, 2011
Mercury Roundup
THANK YOU!
MERCURY WANTED
Region of Peel
Paint
Flourescent Bulbs
Batteries
Sharps
Motor Oil & Filters
Household Cleaners
Drop off Here
Please place
(remove m
HHW DROP -OFF
H.H.W


WOOD
APPLIANCES
ELECTRONICS


WAIT HERE FOR INSTRUCTIONS
STOP
AND LOAD INSPECTION
The Region of Peel will not be held responsible for personal injury or damage to property resulting from the use of this facility.
NO SCAVENGING ALLOWED


TV's MONITOR'S
ELECTRONIC ITEMS
PLEASE PLACE ALL ELECTRONIC ITEMS HERE. THESE INCLUDE:
PERSONAL COMPUTERS, KEYBOARDS, MOUSE
PRINTERS, SCANNERS, DRIVES, MODEMS
TELEPHONES, FAX MACHINES, PHOTOCOPIERS
VCR'S RADIO AND STEREO EQUIPMENT
ELECTRONIC GAME CONSOLES AND SOFTWARE
NO TELEVISION SETS PLEASE
Region of Peel
Working for you


platform and must remain inside
vehicle at all times for safety.