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iEarth: Deconstructing the iPhone

So what is the iPhone really made of?

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Humanity's need to become smarter, leads to more and more pressures on the world's resources. So, materials really matter. With the huge expansion in the mobile phone market, we look at the complex material makeup of handheld device; the good, the bad and the ugly. The good being connect ability. The bad being the loss of natural resources. And the ugly being the social consequences. So, what is the iPhone really made of?

When Steve Jobs released the first ever iPhone, in 2007, society's notion of the mobile phone was revolutionised forever. Apple could form a device that links the features found in the iPod, the mobile phone and the internet. As more models of the iPhone were released, Apple began recognising the use of some materials within the technology, like benzene and n-hexane, which could lead individuals to experience detrimental risks of being affected by leukaemia and nerve damage. As the iPhone evolves, the eco-friendlier it becomes, ensuring safety to those who use their product. The iPhone continues to embrace and develop its innovative structure and technological applications, whilst considering the its environmental and economic impacts on society and our earth.

The evolution of the smartphone has been strongly influenced by the iPhone. As they have chosen to update and upgrade their products technology and materials, it has encouraged other companies, like Samsung (makers of Androids), to consider their own environmental impacts. Aluminium, cobalt & graphite, lithium, silicon and other rare earth elements are used to form the essential components of Apple's iPhone. Majority is mined in China, but can also be excavated in South Africa, Russia, Australia and Guinea. Recently, Apple has been increasingly obtaining their resources from US mines as they're establishing new mining processes. They are devoted to guaranteeing that 'all the waste that was made by their supply chain is reused,

recycled, composted or, when necessary, converted into energy'.

One-day, Apple aims to market an eco-friendly smartphone, that reduces cost of production, be fully powered by renewable energy and minimise their manufacturing footprint, to achieve "... a closed-loop supply chain, where products are built using renewable resources or recycled materials." To ensure success, some responsible initiatives Apple participates in, include; renewable energy, ensuring suppliers are eco-friendly, reducing mining resources and recycling to reuse old apple products through dissembling robots, i.e. Liam. This will help strive towards influencing the economy's costs and processes of mining, recycling and reusing our earth's resources. However, because of the desire to extract fewer materials from the ground, it increases the need to thoroughly assess, in their 'Reliability Testing Lab', customers relations with their device.

Given the growing pressures on the world's resources and communal concerns, Apple has begun to accomplish specific improvements, to achieve a more eco-friendly product that can continue to technologically advance the iPhone's capabilities, having the latest complex technology. As they've launched multiple initiatives to reinforce their duties, it is apparent that Apple has made success in what they've had wanted to achieve. "iPhone is a revolutionary and magical product that is literally five years ahead of any other mobile phone. We are all born with the ultimate pointing device—our fingers—and iPhone uses them to create the most revolutionary user interface since the mouse". - Steve Jobs.

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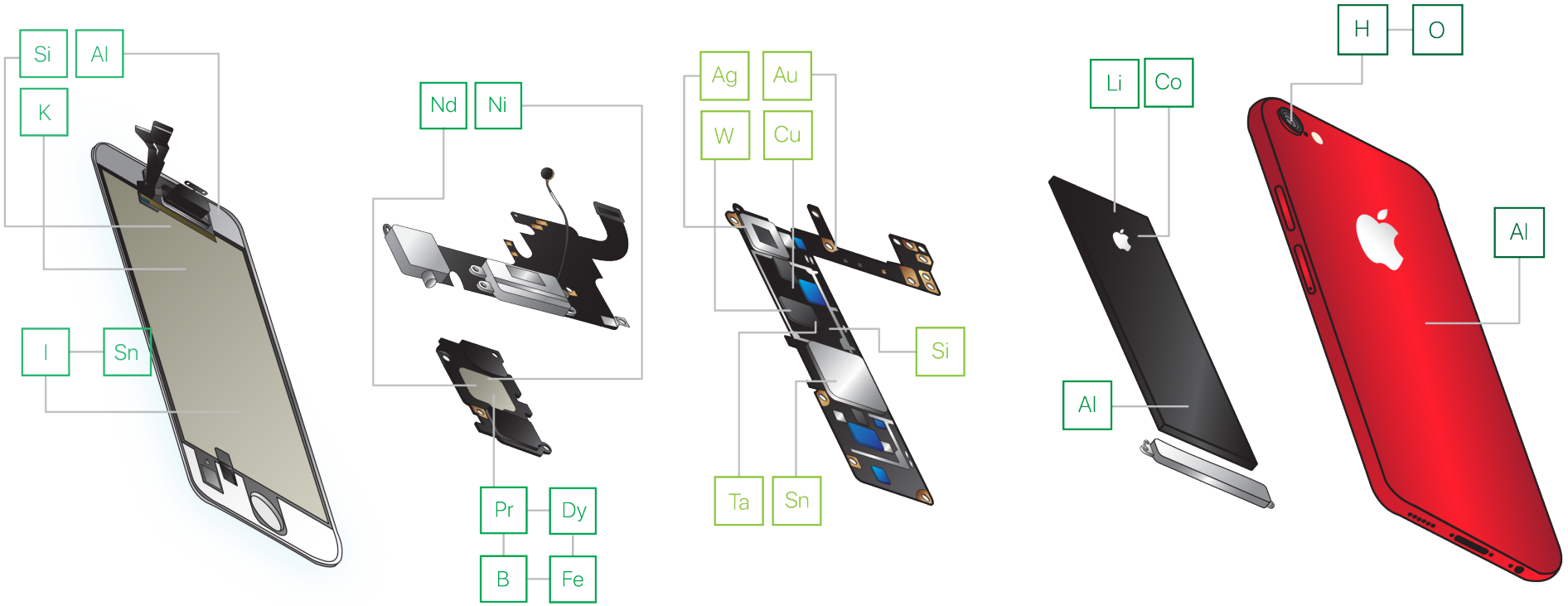
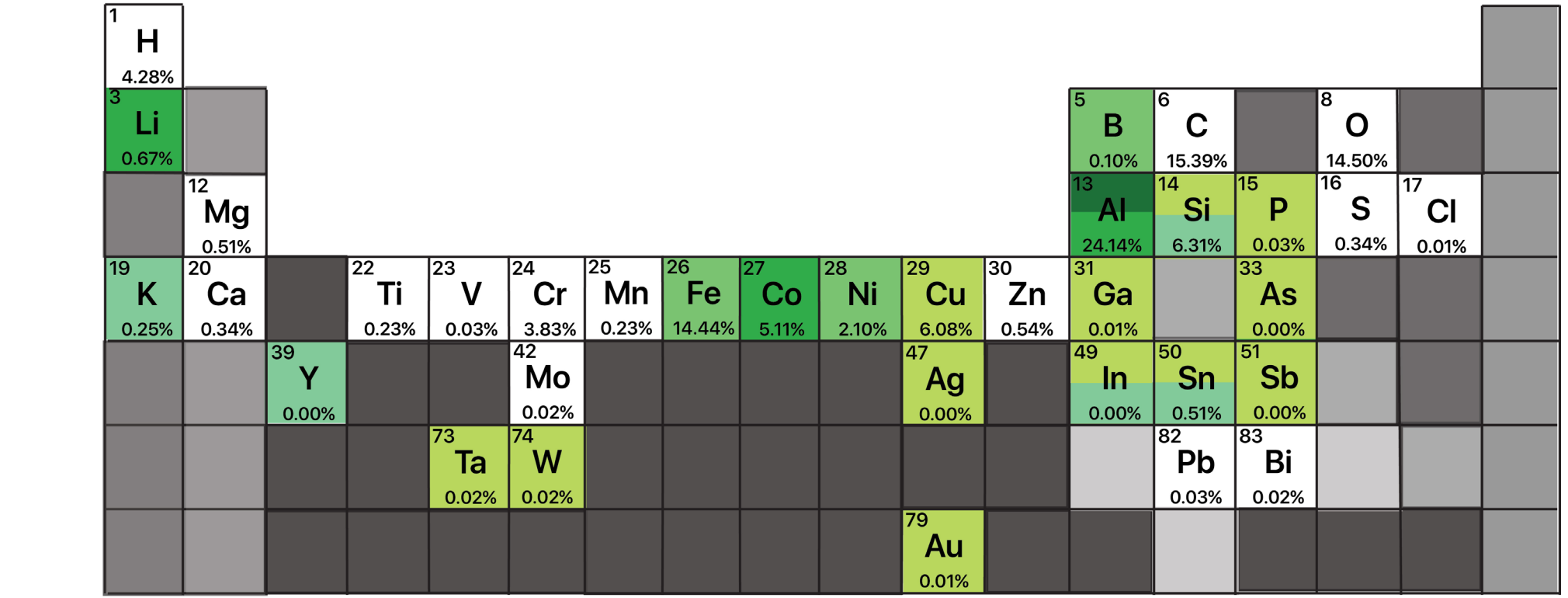
Major Elements found within the iPhone

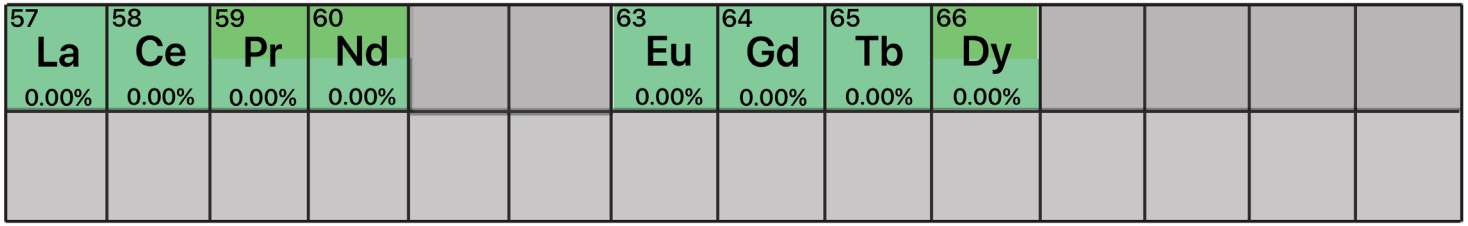
SCREEN | SOUND & VIBRATION | ELECTRONICS | BATTERY | CASE



Al Aluminum	B Boron	Co Cobalt	Cu Copper	Dy Dysprosium	Au Gold	H Hydrogen	I Indium	Fe Iron	Li Lithium
Nd Neodymium	Ni Nickel	O Oxygen	K Potassium	Pr Praseodymium	Si Silicon	Ag Silver	Ta Tantalum	Sn Tin	W Tungsten

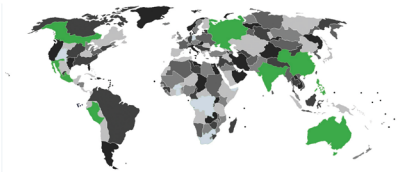
Material Components of the iPhone 6

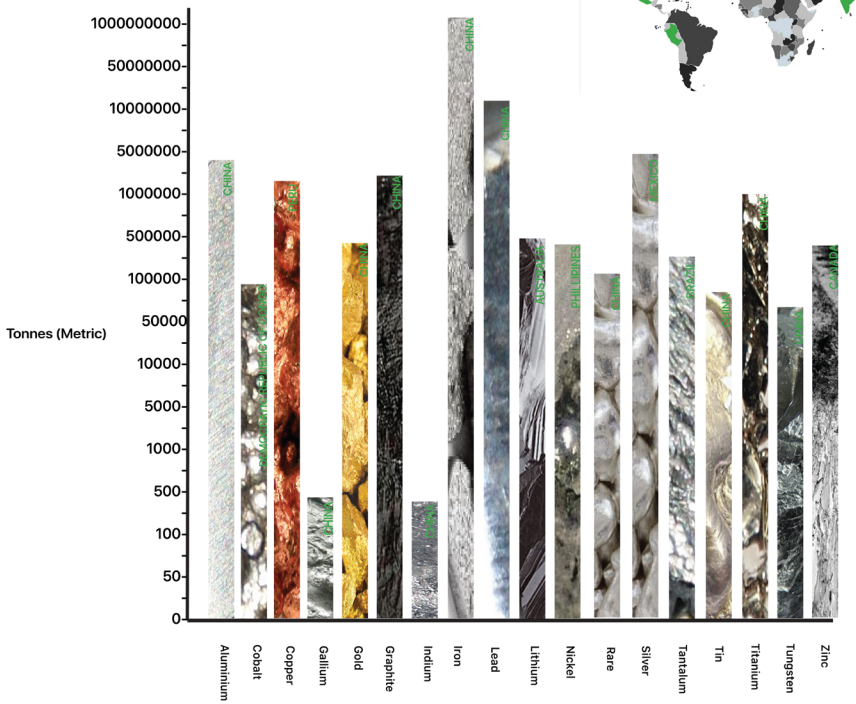




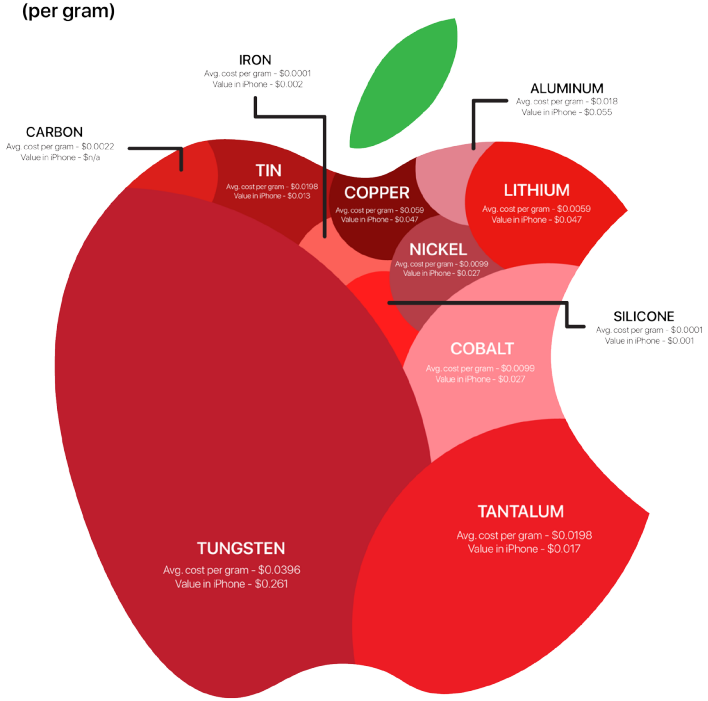
=iPhone Case
=iPhone Battery
=iPhone Eletronics
=iPhone's Sound & Vibration
=iPhone Screen
=Other contributing elements
=Unused elements
% =Element's contributing weight

Mining areas for the iPhone 6 - 2015
(Bar Graph)





Average Costs of the Materials that are found in the iPhone (per gram)



TOP 2 ELEMENTS THAT ARE OF THE HIGHEST COST

GALLIUM
Avg. cost per gram - $0.3304
Value in iPhone - $0.003

GOLD
Avg. cost per gram - $40.00
Value in iPhone - $0.56

NOTE // All information refers to the iPhone 6, 16GB Model