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Don't Call Me On My Cellphone: Congo's Child Cobalt Mines

Lesson Map: http://esriaustralia.com.au/education/SpatialActivity24

Engage

Cobalt Mining.

Cobalt is a chemical element that is used in the creation of rechargeable cell
phones. As the market for mobile phones and other devices has increased, the
industry for cobalt mining has expanded.



Inside the Congo cobalt mines that exploit children by Sky News

■ Watch the above YouTube video on the following link: https://www.youtube.com/watch?v=JcJ8me22NVs

 Much of the cobalt that comes from the Democratic Republic of Congo (DRC) is mined by hand. This is called artisanal mining.

Explore

21st Century Gold.

- → Click on the Lesson Map URL above to open the map. In the 'details' pane, under 'content', tick the first checkbox to turn on the layer 'Cobalt Reserves 2017' Turn off all other layers.
- A reserve means a storage of a commodity that is not being used right now, but is available for use. The circles represent the top ten reserves of cobalt at the end of 2017.
- ? Under the details pane, click on the layer 'Cobalt Reserves 2017'. Click on the table icon. Where at the top 10 reserves located and how much cobalt do they

Download student worksheet here.

Time 15 minutes

Activity

Investigate the unethical world of cobalt mining.

Learning Outcome

Students will be able to:

- Locate the top ten cobalt reserves.
- Analyse the top importers and exporters around the world.
- Explore China's cobalt trade.
- Consider the impact of cobalt mining on human well being in DRC.

ACARA Curriculum Link

Year 9 Geography | Unit 2 | Geographies of Interconnections

ACHGK067 | ACHGK068

Teacher Feedback:

To share your feedback on this, or any Spatial Activity, please contact education@esriaustralia.com.au



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stock?

Rank	Country	Amount (metric tonnes)
1	Democratic Republic of Congo	3500000
2	Australia	1200000
3	Cuba	500000
4	Philippines	280000
5	Zambia	270000
6	Russia	250000
7	Canada	250000
8	Madagascar	150000
9	Papua New Guinea	51000
10	South Africa	29000

Turn off all layers. Turn on the layer 'Cobalt Importers 2016'. Who are the top three importers of cobalt?

The top three importers are China, the United States of America and Japan.

Explain

China's cobalt trade.

? Turn on the layer 'Where China Imports From (Lines) 2016'. Who is the biggest supplier of China's cobalt trade? What percentage do they supply?

The Democratic Republic of Congo supply 75% of China's cobalt.

? How much cobalt does Australia export to China?

Australia exports 1.40% of China's cobalt.

? If Australia has the second highest store of cobalt, why does China buy such a small amount from them?

There are many reasons, but most probably because the cobalt from the DRC is a lot cheaper than Australias due to child labour.

? Turn on the layer 'World Child Labour Rates'. Which continent has the highest rates of child labour?

Africa has the highest rates of child labour.

? Zoom in on the Democratic Republic of Congo. What percentage of child labour do they currently have?

41.39% of children are currently involved with child labour.

Extend

Child labour.

A report by Amnesty International investigated conditions in these DRC mines.

Their investigation found that many of the miners do not have basic protective equipment. This poses a danger as inhalation of cobalt can lead to hard metal



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lung disease. The report also found that many have serious injuries from the physical nature of cobalt mining. Read more here:

https://www.amnestvusa.org/files/this what we die for - report.pdf

? Turn on the layer 'Life Expectancy by country, 2013'. What is the current life expectancy rate in DRC?

The current life expectancy is 49.9 years old.

? Can you explain the relationship between cobalt mining and the extremely low life expectancy in DRC?

Workers are becoming sick and dying at a younger age than first world countries.

? One of the main companies responsible for mining cobalt in DRC is Zhejiang Huayou Cobalt. Their estimated revenue is 710 million (USD). How does this make you feel after learning about conditions in the DRC?

Students own answer.

Next Steps:

Request a free ArcGIS Online Account for your school:

Australian schools can request a free ArcGIS Online account as part of Esri Australia's Classroom GIS Initiative. A school subscription provides additional map layers, content, features and privacy.

Learn more about ArcGIS Online, and apply for your ArcGIS Online School subscription at http://esriaustralia.com.au/education

Spatial Activity Classroom GIS Initiative 3