

Mining for justice: the truth behind mobile phone technology



Promoting Attainment of
Responsible Research &
Innovation in Science
Education

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Introduction to the Coltan Story

Coltan (tantalite) is an ore of the metal tantalum. It is found in abundance in the DRC.

Tantalum is used to make capacitors for smartphones. Coltan sells for very high prices.



Coltan mines are dangerous for workers and mines are often controlled by militia groups.

The mines destroy forests and cause pollution. The miners often eat local bush meat, including gorillas.

Lesson sequence

Lesson 1

- Introduction about metal ores
- Learning about metal extraction methods
- Discussion about mining activities

Lesson 2

- Research into the Coltan Story
- Discussion about issues of: Science, Economics, Societal and Environmental impact

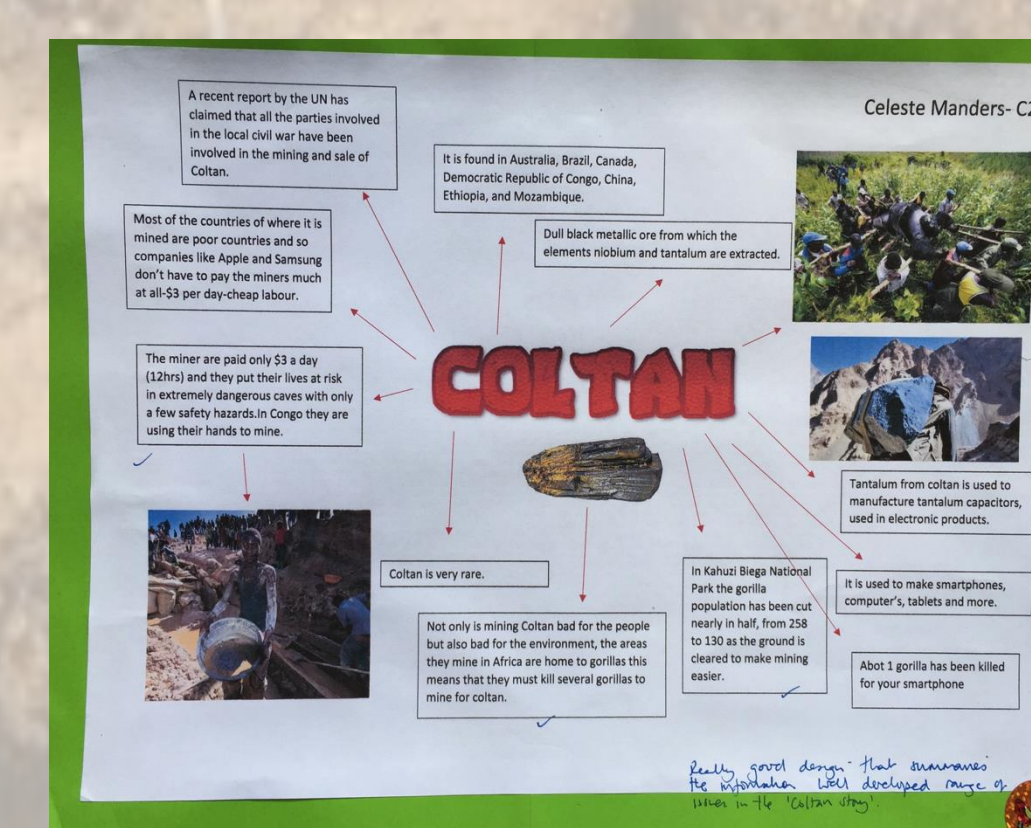
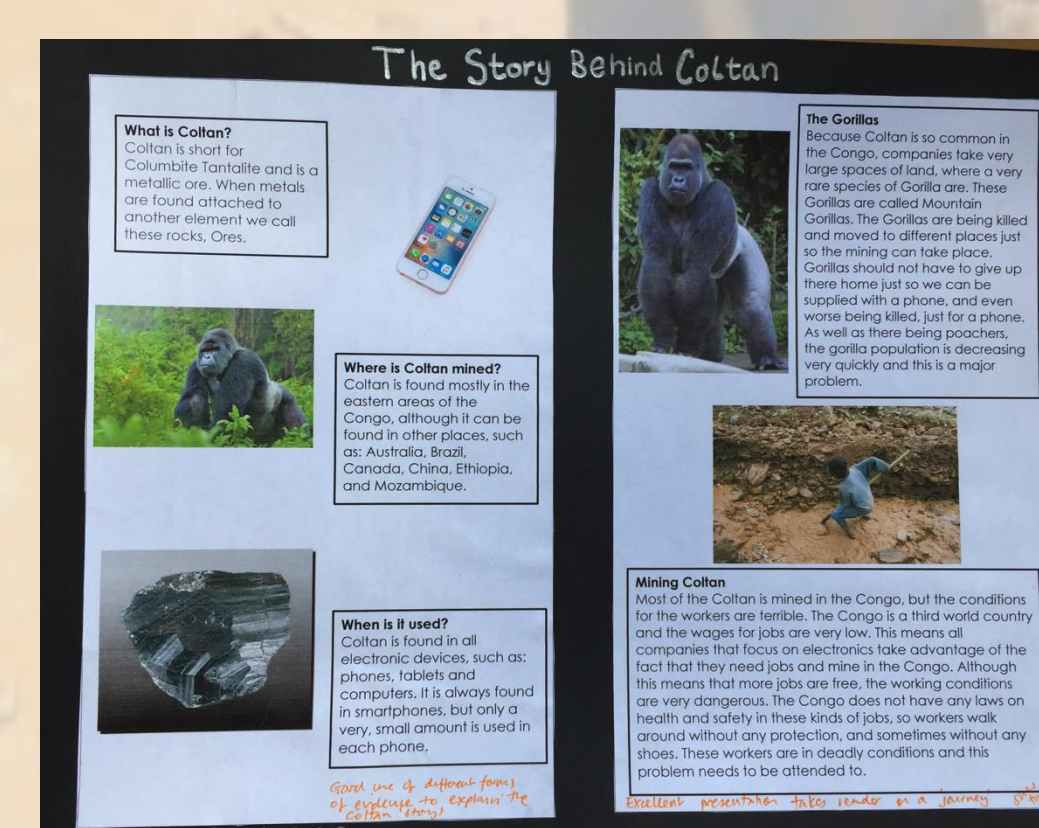
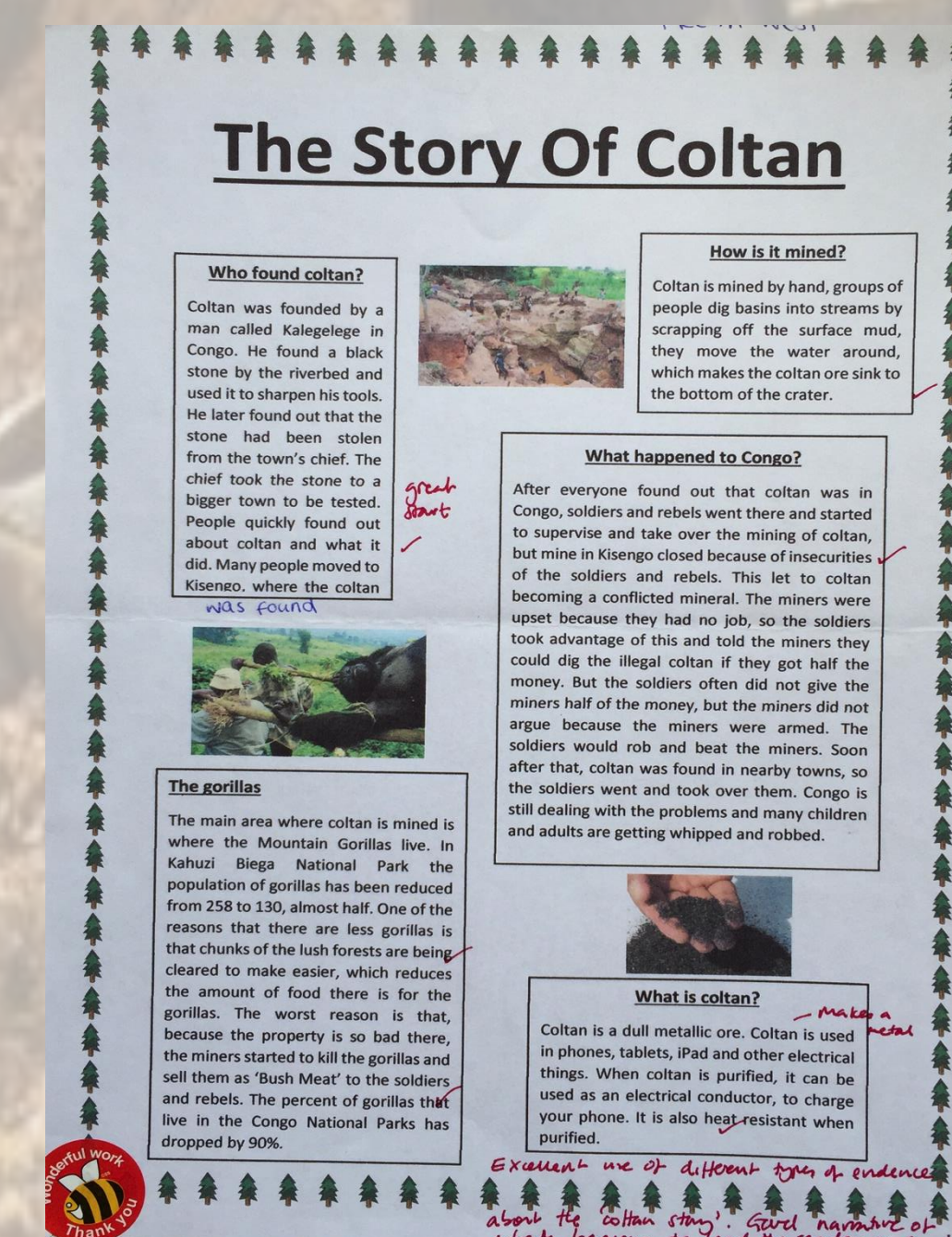
Lesson 3

- Production and presentation of outputs
- Discussion about action and next steps
- Reflection on the Coltan Story

Students' responses to the Coltan Story



Examples of student posters



Frequency of student outputs



Students' ideas about Action

- Recycle smartphones
- Replace smartphones less frequently
- Only buy smartphones from companies that source 'ethical coltan'
- Fund raise for organisations helping the miners and wildlife
- Raise awareness with posters and events
- Write to governments that support coltan mining



Adverts publicising the link between coltan and smartphones