

Earth Science Rocks!

Question: What minerals do you know that are mined for profit?

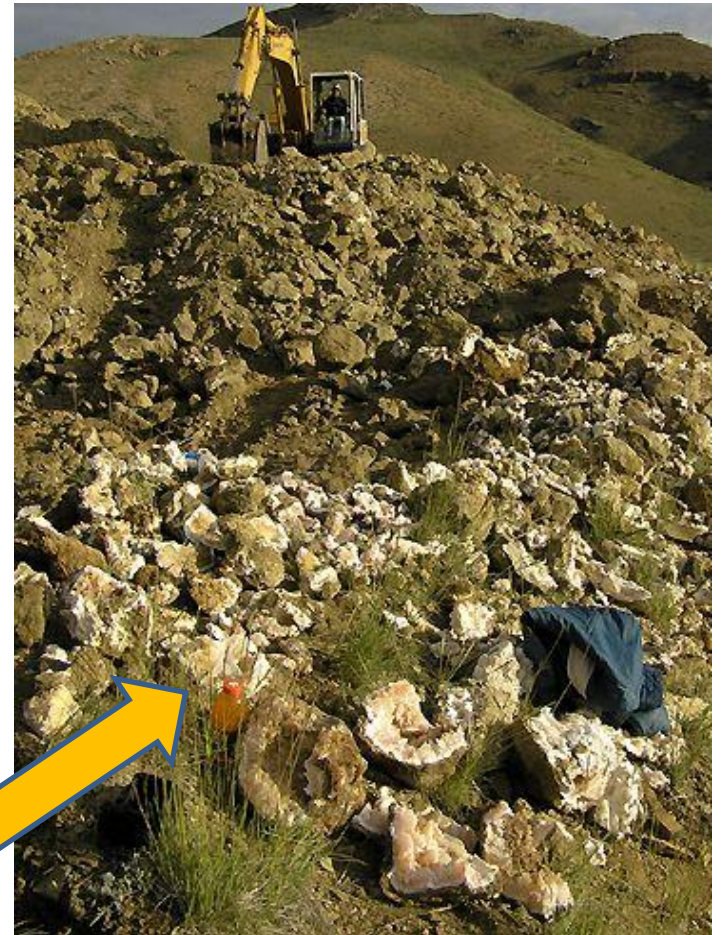
Earth Science Rocks!

Standard: Investigate the scientific view of how the Earth's surface is formed.

Essential Question: How can I model the mining of ore with Play-Doh?

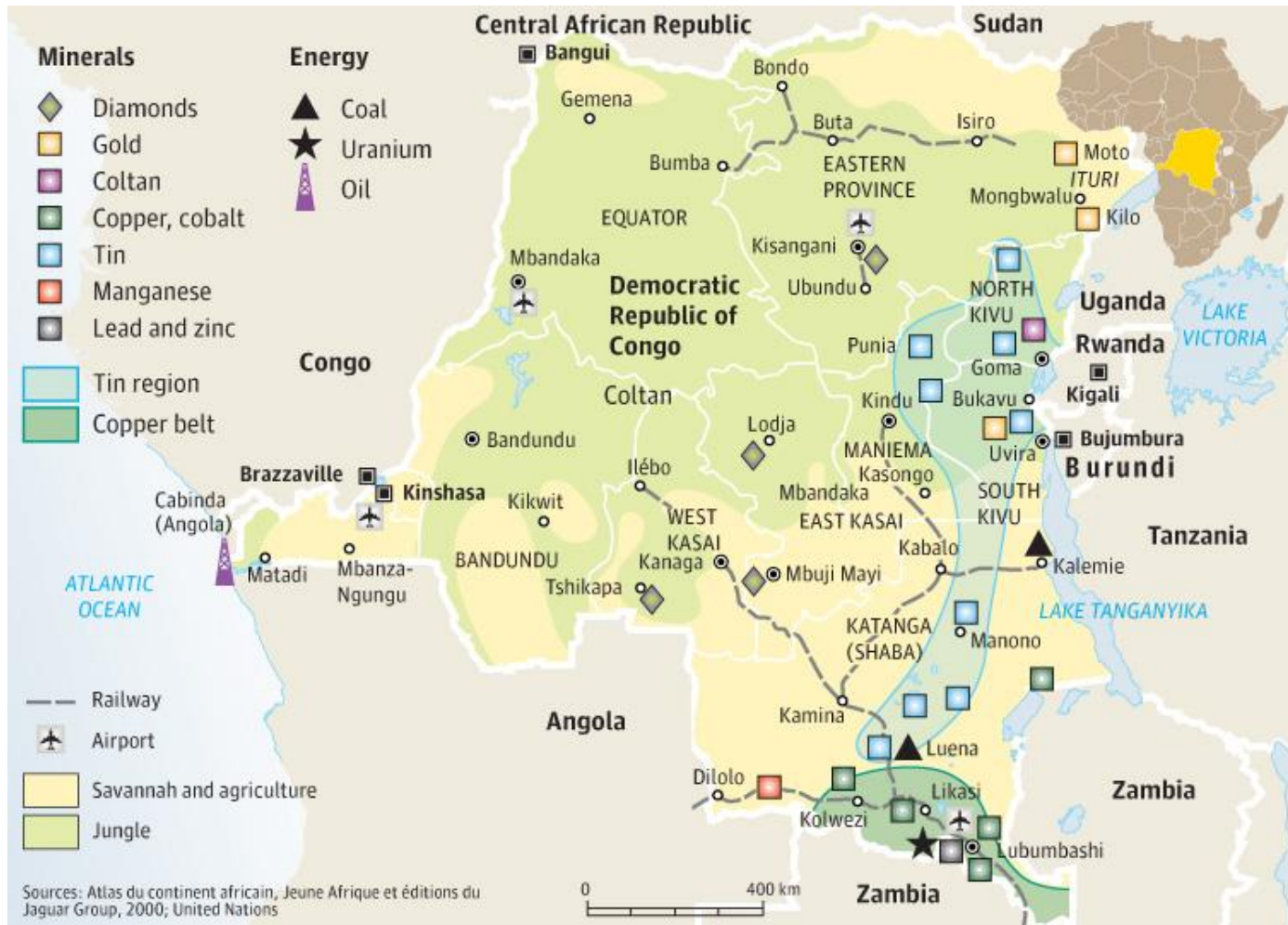


The Great Bead Mine



Ore—a mineral deposit large enough to be mined for a profit

Just like beads in Play-Doh, mineral resources are not evenly distributed throughout the earth



Mineral resources are NON Renewable!



Once we mine minerals from the Earth, they cannot be replaced!



Mining Rules



- The mine will earn \$500 per bead
- Cost to reserve the mine for use is \$300
- There is \$100 fine for every piece of Play-Doh that breaks off
- Broken equipment may not be used, and must be replaced. Each tool (toothpick or paperclip) will cost \$100

Surface mining--Quarry

Without touching the “mine” (Play-Doh), examine it. How many “minerals” (beads) can you see on the surface?



- Use your tools carefully to mine out (remove) the “minerals”. **You may not pick up the Play-Doh.** It must only be mined from the top

B. Find your mining and processing costs and gains:

Number of mineral beads _____ x 500 = _____

If you had to replace tools, subtract \$100 from the total for every tool.

- Total = _____

C. Land Damage:

Take your new total. Subtract \$300 for mine reservation fee.

Total = _____

Now subtract \$100 for **every** piece of “Earth” that was broken off.

D. Grand Total = _____

- Did your mine make a profit or lose money? _____

Closing

Answer the **Conclusion** questions