

Name: _____ Date: _____ Period: _____

The Great Play-Doh Bead Mine

Purpose: To understand how mining affects the Earth

Materials:

One ball of Play-Doh with beads

2 toothpicks

1 paperclip

1 paper towel

*Additional materials available for a fee

Procedure:

A. Mining Rules:

1. The mine will earn \$50 per bead
2. Cost to reserve the mine for use is \$300
3. There is a \$100 fine for every piece of Play-Doh that breaks off
4. Broken equipment may not be used, and must be replaced. Each tool (toothpick or paperclip) will cost \$100

B. Mining and Processing:

1. Without touching the "mine" (Play-Doh), examine it. How many "minerals" (beads) can you see on the surface?
2. Use your tools to carefully mine out (remove) the "minerals." **You may not pick up the Play-Doh.** It must be mined from the top.
3. 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:

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

Total = _____

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

D. Grand Total = _____

Did your mine make a profit or lose money? _____

Conclusion: Answer the following questions using complete sentences.

1. How is your “mine” similar to a real mine?
2. How is your “mine” different from a real mine?
3. What happened to the “land” while you were mining?
4. Can the “land” be replaced? What would have to be done to repair the “land?”
5. How could you have made your mine more profitable?