

Teacher Page: Cookie Mining Lab

Unit: Unit 7

Website: <http://teachcoal.org/lesson-plan-cookie-mining>

Description: Mining Processes and Wastes

Time: 1-2 Class Periods

Materials: Play Money, Three different types of commercially packaged chocolate chip cookies, Grid paper, Pencils, Flat toothpicks, Round toothpicks, Paper clips, Cookie Mining Worksheet

Procedure:

Warm-up:

Instructional Strategies: Pair or group students for work during this lab

Assessment: Completed Worksheet

Variations: Teacher led instruction

Interdisciplinary Connection: geography civics math

Sample Data/ Answers: None



Cookie Mining Worksheet



Name: _____ Date: _____

Costs

A. Land acquisition costs (price of cookie)

(Montana – \$3; Pennsylvania – \$5; Kentucky – \$7)

Name of property _____

B. Equipment costs

Flat toothpick _____ x \$2 = _____

Round toothpick _____ x \$4 = _____

Paper clip _____ x \$6 = _____

Total equipment costs \$ _____

D. Mining/excavation costs (chip removal)

Flat toothpick _____ x \$1 labor = _____

Total excavation costs \$ _____

C. Reclamation

(Original number of squares covered before cookie was mined = _____)

Squares covered outside original outline after reclamation _____ x \$1 labor = _____

Total reclamation costs \$ _____

Profit

E. Mining valuation

Number of whole chips mined _____ x \$2 = _____

Gross profit \$ _____

Calculating Net Profit/Loss

Start-up funds		\$ 19
less	total mining costs (A. + B. + C.)	- _____
less	total reclamation costs (D.)	- _____
less	gross profit (E.)	+ _____

Total Net Profit/Loss \$ _____

