

Cookie Mining Lab

Name _____ date _____

Purpose: The purpose of this activity is to give the student an introduction to the economics of mining. The student buys property, purchases the mining equipment, pays for the mining, and finally pays for the reclamation. The student will receive money for the ore mined. The object is to develop the mine, safeguard the environment and see how much money you can make.

Materials:

grid paper
chocolate chip cookie
toothpicks (flat & round)
paper clips
paper towel (clean up)

Instructions:

1. Each group starts with \$19 in the bank.
2. Each player receives a Cookie Mining sheet and a sheet of grid paper.
3. Each group must buy his/her own mining property which is a chocolate chip cookie. The cookies sell for \$5.00.
4. After buying the cookie, the player places it on the grid paper and, using a pencil, traces the outline of the cookie. The player must then count each square that falls inside the circle, recording this number on the Cookie Mining Spreadsheet along with the properties of the cookie.
Note: Count partial squares as a full square.
5. Each player must buy his or her own mining equipment. More than one piece of equipment may be purchased. Equipment may not be shared between players. Mining equipment for sale is:

Flat toothpick	\$2.00 each
Round toothpick	\$4.00 each
Paper clips	\$6.00 each
6. Mining costs are \$1.00 per minute. There is a maximum of five minutes to mine your cookie. Students who finish before the 5 minutes are used up should only deduct the actual time mining.
7. Sale of a chocolate chip mined from a cookie brings \$2.00 (broken chocolate chips can be combined)
8. After the cookie has been mined, the cookie fragments and crumbs should be placed back into the circle area on the grid paper. This can only be accomplished using the mining tools-No fingers or hands allowed.
9. Reclamation costs are \$1.00 per square over original count. (Any piece of cookie outside of original circle counts as reclamation.)

COOKIE MINING SPREADSHEET

1. Type of cookie _____
 2. Price of cookie \$ _____
 3. Size of cookie _____ squares covered
 4. Equipment used
 - Flat toothpick _____ x \$2.00 = _____
 - Round toothpick _____ x \$4.00 = _____
 - Paper clip _____ x \$6.00 = _____
- TOTAL EQUIPMENT COST \$ _____
5. Mining _____ minutes x \$1.00
 Cost of removing chips \$ _____
 6. TOTAL COST OF MINING (price of cookie + equipment cost + cost of chip removal) \$ _____
 7. Chip removal income
 Number of chips _____ x \$2.00
- VALUE OF CHIPS \$ _____

How much did I make?

		\$19.00
Value of chips	+	_____
Total cost of mining	-	_____
Reclamation: _____ squares x \$1.00	-	_____
PROFIT OR LOSS	=	\$ _____