Chocolate Chip Cookie Mining Activity

Aim:
To determine the percentage composition of chocolate chips in a chocolate chip cookie.

Hypothesis:
It is predicted that there is _____ % of chocolate chips in a chocolate chip cookie. This is because _____
(explain why you stated that percentage)

Procedure:

1. Weigh your chocolate chip cookie on the electronic scales using the correct techniques (ensure that there is a paper towel on the scales before weighing it)
2. Mine out the chocolate chips (ore) using a toothpick
3. Weigh the chocolate chips on the electronic scales and record your results in the results table
4. Determine the remaining cookie (rock) weight and record your results in the

Results Table

Mass of Chocolate Chip cookie (A)	Chocolate Chip Mass (B)	Mass of remaining cookie (C = A – B)

Discussion Questions/Analysis

1. Determine the percentage composition of chocolate chips (ore) in your cookie by using the following formula

$$\% = \frac{Chocolate\ Chips\ Weight}{Weight\ of\ Chocolate\ Chip\ Cookie} \times 100$$

2. Determine the percentage composition of cookie left (rock)

When mining companies have finished a mining site they are required to return the site back to original environmental condition (reclaim).

3. If you were asked to put your chocolate chip cookie back together again, what steps would you take to achieve this?

4. Would you able to completely restore the land? Why or why not?

5. There were crumbs of earth (cookie) that were on the towel, fell on the floor, or maybe even blew away while you were mining. How does this affect the reclamation process?