

Name: _____



Mining Chocolate Chips



You must use only mining tools (toothpicks) to extract the ore (chocolate) from the land (cookie)—not your hands!

For cookie #1, break up the cookie as much as you want in order to extract as much chocolate as possible.

For cookie #2, remove as much chocolate as possible but damage the cookie as little as possible.

	Cookie #1	Cookie #2
Estimated amount of cookie (%)		
Estimated amount of chocolate (%)		
Estimated fraction of cookie that is chocolate		
Measured amount of cookie (g)		
Measured amount of chocolate (g)		
Actual fraction of chocolate		
Level of difficulty of chocolate removal (1 easy, 5 hard)		
Amount of chocolate left in the cookie (1 a little, 5 a lot)		
Value of chocolate at \$10/gram		

There are six questions to answer about this lab. Answer each question in the space provided and in complete sentences.

1. Which cookie produced the most chocolate chips? Which cookie produced the least chocolate chips?
2. Which method produced the most damage to the cookie? Which method produced the least damage to the cookie?
3. Describe the difference between the two ways you mined for chocolate.
4. How much more chocolate did you extract from the first cookie than the second cookie?
5. After a mine is completed, the land must be as close to its original state as possible (reclamation). Which method demonstrates this concept? How?
6. Can you think of any potential problems that may occur when a portion of land is mined?