

RADIOACTIVITY LAB

PURPOSE: *leave blank for now*

MATERIALS & PROCEDURE:

DATA:

1. Each group gets a cup of M&M's. Assume they are all radioactive.
2. Count original amount.
3. Flip #1 = 1st half life. Count the number of M&M's that are still face up. These are still radioactive. The ones that are face down are safe and can now be eaten.
4. Flip #2?? do the same. Or do until there is only 1 M&M left.
5. Every flip = 5700 years

Data:

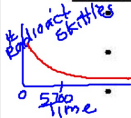
FLIP#	#RADIOACTIVE SKITTLES
0	80
1	40
2	20
3	10
ETC.	5

face up = radioactive = don't eat!
 face down = stabilized = eat
 * You can't get to 0

DATA ANALYSIS

Graph data. Y axis is # radioactive M&M's. X axis is Time. Each flip = 5700 years = 1/2 life of carbon 14.

From the graph: 5 Qs



- Describe the relationship between amount of radioactive material and time.
- After 5700 years, how much was still radioactive? What fraction is this to the original amount?
 - After 11400 years, how much was still radioactive? What fraction is this to the original amount?
 - If you found a fossil that is 26000 years ago, how much carbon 14 would you find?
 - If you only found 1/16th the original amount of expected carbon 14 in a fossil, how long ago did this fossil exist?

CONCLUSION

- What was the purpose of this activity?
- How do scientists studying evolution use radioactive materials?
- What is a radioactive material? Describe the type of substances are emitted.