



## Twizzlers Half-Life Lab

Name \_\_\_\_\_

What is half-life? \_\_\_\_\_

You are going to collect data on the radioactive decay of Twizzlers. They have a half-life of 2 minutes.

### Procedure

1. Unwrap your test Twizzler. (Keep it on paper and don't allow anyone but you to handle it.)
2. Record the mass and length of your Twizzler
3. After one half-life (2 minutes) cut your Twizzler in half. (You can eat half.)
4. Record the length and mass of the Twizzler.
5. At two half-lives, cut your Twizzler in half.
6. Record the length and mass of the Twizzler.
7. Repeat these steps for 6 half lives.

Time Minutes	Half-Lives	Twizzler Length (cm)	Twizzler Mass (g)
0	0		
2	1		
4	2		
6	3		
8	4		
10	5		
12	6		

### Conclusion:

1. Make a line graph your results. Half-life on the x axis and length / mass on the Y
2. What is the half-life of Twizzlers?
3. What is misleading about this lab activity? (What are some misconceptions it could cause?)
4. If you started with a 10 foot Twizzler, would that change the shape of the line? Why or why not?
5. Did you run out of Twizzler?      Would you ever run out of Twizzlers?