

## Student Sheet 3.2-What is your Testing Plan?



Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

### I. Introduction:

Use information from the story, clues from the maps of Country Club Creek and your notes from the previous activities to decide which sites to test to determine the source of the pollution and decide on the extent of its spread.

### II. Methods and Materials:

#### Part 1

Decide which sites you will test and make your calculations below. You may choose to test soil, water, or drill a well to test groundwater (test at least ONE of each), but remember you have \$1500 to spend on the project, so choose wisely.

Site	Sample type	COST (\$)
1	well	300
2	soil	200
3	soil	200
4	soil	200
5	soil	200
6	well	300
7	soil	200
8	soil	200
9	well	300
10	well	300
11	well	300
12	water	100
13	water	100
14	water	100
15	water	100
16	soil	200
17	well	300

Site	Sample type	COST (\$)
19	water	100
20	well	300
21	well	200
22	well	300
23	well	300
24	well	300
25	well	300
26	soil	200
27	soil	200
28	soil	200
29	soil	200
30	well	300
31	soil	200
32	well	300
33	water	100
34	water	100
35	water	100

Calculations:

EXAMPLE –Sites 2,3,4 (soil) 12,13,14 (water) 1,6 (well)= 3 (\$200) + 3 (\$100) + 2 (\$300)= \$1500

Sites chosen: \_\_\_\_\_

Cost: \_\_\_\_\_

**Total: \$1500**

## Part 2

Take only one site bottle at a time. To test a site, mix **4 drops of your sample** (could be surface water, soil or groundwater) with **2 drops of pesticide indicator**. Record the site number from the Country Club Creek map, the color, and the concentration range and code from the chart in the results table.

### Concentration ranges for site samples

Color	Pesticide Concentration Range (ppb)	Code
Red	not detected less than 0.1	0
Orange	0.11 - 0.8	1
Yellow -green	0.81- 4.0	2
Green -blue	4.1 – 32.0	3
Blue -purple	more than 32	4 (SOURCE)

### III. Results

Site Number	Color	Pesticide Concentration Range	Code

### IV. Conclusions

1. Which site most likely caused the fish kill? \_\_\_\_\_
2. Why do you think high concentrations were found at some of the other sites not associated with the fish kill?  
\_\_\_\_\_
3. Did you see any patterns in your results-how were the pesticides dispersed?  
\_\_\_\_\_
4. What could be the reason for such high levels of Pesticide at the "SOURCE" site (Code 4)?  
\_\_\_\_\_
5. Who in the community might be concerned about high levels (Code 2-4) of pesticides? Why?  
\_\_\_\_\_
6. You've discovered the source of the fish kill. What would you do next to protect others from this area?  
\_\_\_\_\_
7. Read the Austin American Statesman article from May 19, 1979. How did the pesticides get in the park?  
\_\_\_\_\_