STUDENT SHEET 1

PROBLEM:

HYPOTHESIS:

PROCEDURE: Part 1 continued

Step 1 – Using tables 1 and 2, record the information on the neighborhood drawing using the following key:

Cancer Death – Red Dot Herbicide – Brown Shading

Heart Attack - Orange Dot Insecticide – Purple Shading

Unknown Cause – Yellow Dot Pesticide - Purple Shading

Step 2 – Answer the following questions.

1. How many deaths have occurred in the past ten years along this section of Limestone Ridge Road?
2. What percentage of the deaths were caused by:

Cancer \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Heart Attack \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What appear to be some environmental factors that could have influenced the development of cancer?
2. If you lived in this neighborhood, what could you do to try to change the contaminant levels in the area?
3. Research the hazards posed by each of the chemicals listed in table 1 and list them below.

Alachlor –

 Hexachlorobenzene –

 Methoxychlor –

 Nitrates –

 Simazine –

Step 3 – Read “Limestone Ridge Topography and well information”.

1. Assess the depth of each neighbor’s well.
2. What is the direction of groundwater flow along this section of Limestone Ridge Road?
3. On what information did you base your answer to number 2?
4. Find two articles online about groundwater pollution and farming. Summarize below.

PART 2

CONCLUSION:

Based on the information gathered from your online research, the information given in tables 1 and 2, and the answers to the questions asked in steps 1,2 & 3 – write a conclusion.

(Remember to restate your hypothesis, tell if it was correct and use the data gathered to support the conclusion)

SOLUTION:

Based again on the information you learned, what is a possible solution to the Limestone Ridge Road problem. (This is a rural area in mountainous region of Kentucky. City water is not available or cost effective to pipe to this area. )