Introduction Assignment /20

Read pg. 1060 – 1063 (Appendix A) and answer the following questions.

**PART 1: MATCHING** - Place the letter corresponding to the BEST definition for each term in the box to the left of the term. ( /6)

|  |  |  |  |
| --- | --- | --- | --- |
| **ANSWER:** | **TERMS:** |  | **DEFINITIONS:** |
|  | 1) science | A | an “educated guess” that predicts the solution to a research problem |
|  | 2) theory | B | a problem-solving approach that uses process skills in a logical order |
|  | 3) controlled experiment | C | a well accepted hypothesis that is supported by repeated observation and experimentation |
|  | 4) hypothesis | D | a procedure such as observing and measuring, that is used in scientific research |
|  | 5) process skills | E | a body of knowledge and an organized process for gaining knowledge about the natural world |
|  | 6) scientific method | F | an experiment in which all variables except one, are held constant |

**PART 2: SHORT ANSWER QUESTIONS** - Answer the following questions as completely as possible. Answers may be in point form. ( /6)

1. Give at least two examples of process skills. (pg. 1060 Appendix A) ( /2)
2. Give and explain briefly, 2 examples of science-related issues that have been in the news lately.

( /2)

1. List at least 2 of Ms. Gill’s classroom rules or policies. ( /2)

**PART 3: DISPLAYING YOUR UNDERSTANDING** - The following phrases are taken from an experiment done by grade 11 students. Place the phrases in order, according to the scientific method, by placing the numbers 1-8 beside the corresponding phrase. ( /8)

|  |  |
| --- | --- |
| **NUMBER:** | **PHRASES TO BE PUT IN ORDER:** |
|  | The students decide that they will test their educated guess by taking a survey of all the teachers in the school, as to whether they drink coffee or not. They also decide to do a secret survey listing all of the “strange” teachers, and then compare the two surveys. |
|  | Students notice that some of their teachers are acting very strangely, and have an odd glow in their eyes. |
|  | The students record the results of their surveys in table form. |
|  | The students analyze the results of their two surveys, and conclude that their initial hypothesis was indeed correct, and that the water must be contaminated. |
|  | Students infer that the water that their teachers are making their coffee with must be polluted with some sort of radioactive material. They decide that if the coffee water is indeed contaminated, then teachers who do not drink coffee will not act strangely, or have glowing eyes. |
|  | The students write a letter to their local Leader Newspaper, to share the findings of their experiment. |
|  | Students split into two groups, one which will survey coffee-drinking teachers and one which will survey “strangely-acting” teachers. |
|  | Students at other schools read the letter in the Leader, and conduct similar experiments on their teachers. Their results too, support the findings of the students. |