SHS LEARNING ACTIVITY

Name: #39 **Score/Mark:**
Grade and Section: **Date:**
Strand: ☐ STEM ☐ ABM ☐ HUMSS ☐ ICT (*TVL Track*)
Subject: *Research Project*
Type of Activity ☐ Concept Notes ☐ Skills: Exercise / Drill ☐ Illustration ☐ Laboratory Report ☐ Essay/Task Report ☐ Others: _____

Activity Title:	Scales of Measurement – Nominal, Ordinal, and Interval
Learning Target:	(1) To discuss the nominal, ordinal and interval scales of measurement (2) To determine the variables' measurement scales of proposed research
References: *(Author, Title, Pages)*	(1) Essentials of Statistics for Behavioral Sciences, pp. 13-20 (2) M.C. Fabella

As soon as data have been collected, the researcher has all kinds of information to be organized – numbers, responses, or observations. The first step is knowing which **scale of measurement** to use for these data. Measurement involves using numbers to count people or the frequency of events, or merely categorizing data in names. Knowing the right scale of measurement for data will determine which appropriate statistical analysis to use later. Using a certain statistical procedure for the wrong scale of measurement results in erroneous results, faulty interpretation and false conclusion.

Nominal Scale of Measurement:

The word "nominal" refers to "names", and involves labeling things. Data are sorted into labeled categories. Examples would be gender, occupation, barangay, etc.

Ordinal Scale of Measurement:

The word "ordinal" refers to "order" or "rank". Here, the categories that make up the scale not only have separate names (as in a nominal scale), but are ordered according to magnitude. For example, top three students are ranked in terms of performance at the end of a school year as 1st honor, 2nd honor and 3rd honor. The weakness of the ordinal scale, however, is that it cannot give us information as to how much higher the first honor student's average grade is compared to the second and third honor students.

Interval Scale of Measurement:

This scale of measurement is a series of ordered categories (like ordinal scale), but of equal-sized numerical intervals. For example, a ruler has equal distances of 1-inch **intervals**. But here you cannot say that the distance between 3-inch mark and the 4-inch mark is greater than the distance between the 1-inch mark and the 2-inch mark. In interval scale of measurement, there are no differences in magnitude. Each interval is the same in size/magnitude.

Exercises: Name the scale of measurement:

1. A swimming coach records his competing team members as first to finish, second to finish, and so on. What scale is he using?
2. A researcher obtains the ages of 50 senior high school students. He records the following ages: 19, 17, 20, 16, and 18. What scale of measurement will he use in organizing his data?