LEARNING AS ONE NATION
Expanded Project

Math 10_42

JHS LEARNING ACTIVITY

Name: _____ **Grade/Score:** _____
Year and Section: _____ **Date:** _____

Subject *(Check or choose from below.)*_____

- ☐ Religion/Values Education
- ☐ Natural Sciences
- ☐ Araling Panlipunan
- ☐ Filipino
- ☐ English
- ☐ Math
- ☐ TLE / ICT
- ☐ MAPEH
- ☐ CAdT

Type of Activity *(Check or choose from below.)*_____

- ☐ Concept Notes
- ☐ Skills: Exercise / Drill
- ☐ Laboratory Report
- ☐ Illustration
- ☐ Formal Theme
- ☐ Informal Theme
- ☐ Others: _____

Activity Title: Mutually Exclusive Events

Learning Target: To describe and illustrate mutually exclusive events

References: *(Author, Title, Pages)*
http://www.analyzemath.com/statistics/mutually-exclusive.html (Accessed January 2016)
V.G. Baja and M.V. Carpio-Bernido, CVIF Learning Activities

Mutually exclusive events in probability are events which cannot occur at the same time.

Mutually exclusive events can be represented and described as disjoint sets since there is no common event of the sets for the given sample space.

Example: Rolling a die.

Let A = events with even numbers

Let B = events with odd numbers

Solution:

Sample space of a die: $S = \{1, 2, 3, 4, 5, 6\}$

$$A = \{2, 4, 6\} \longrightarrow P(A) = \frac{n(A)}{n(S)} = \frac{3}{6} = \frac{1}{2}$$

$$B = \{1, 3, 5\} \longrightarrow P(B) = \frac{n(A)}{n(S)} = \frac{3}{6} = \frac{1}{2}$$

$$P(A \cap B) = \{\ \} \longrightarrow P(A \cap B) = \frac{0}{6} = 0$$

Exercises:

1) Illustrate a Venn diagram for the intersection of sets A and B.
2) Find the probability of $A \cup B$.
3) A pair of dice is rolled. Find the probability that the sum of numbers is either 5 or 6.