ORGANIC AGRICULTURE INTEGRATION IN BASIC EDUCATION CURRICULUM

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Math 7

Grade Level: Grade 7
Subject: MATH 7
Topics: Measurement
Pre-requisite: Student: has prior knowledge about the geometry
Materials: availability of garden site area.
Learning Competency Math: Content (Measurement) - converts measurements from one unit to another in both Metric and English systems.
- M7ME-IIb-1

Duration: 1 session

I. Learning Objectives

A. Math Objectives

1. Estimate or approximate the measures of qualities particularly length, weight/mass, volume, time, angle and temperature.
2. Differentiate the type of measurement (conversion)

2. Organic Agriculture Objectives

1. Compute the given lay-outed area.
2. Determine the length, width.

II: Subject Matter:

A. *Topic in Math:* MEASUREMENT (the different type of measurement)

B. *OA Integrated concept: Garden layout and planting distance*

C. *Main Concept and Skills:*

Garden layout and planting distance can be done through measurement. It involve knowledge how to measure the area and planting distance of a plant so that it can produce more production. Planting distance has common practices like for example, square method, rectangular method, diamond method, quincunx method and hexagonal method. Measurement have a major role in performing the activity where the student know how to used the two types of measurement.

D. *Value focus:* Cooperation and, collaboration effort towards accomplishing a given activity and accuracy in measuring and gathering data gathered.

E. *References:* CBLM UC 2-1 Horticulture –Produce vegetable crops

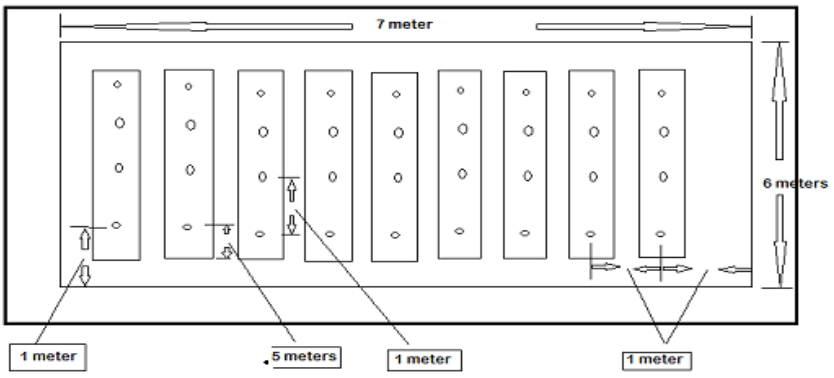
F. *Materials:* meter stick, tape measure, paper, pen, tie back, garden site.

Appendix A. Conversion

Metric Measurement to English Measurement	English Measurement to Metric measurement
1 cm = 0.4 inch	1 inch = 2.5 centimeter
1 mm = 0.04 inch	1 foot = 30 centimeter
1 m = 3.3 feet	1 yard = 0.9 meter
1 m = 1.1 yard	1 mile = 1.6 kilometer

References - www.fws.gov/southeast/carbon/metric.html

Appendix B. Sample drawing of plot gardening.



III. Learning activities:

*Pre – Activity: Show a drawing of a sample plot. Refers to Appendix B

A. Activity:

Group the students into 5. Measure the length and width of the following items using the two types of measurement and present/show the output.

Group 1 – chalkboard Group 2 - teachers table

Group3 – divan Group 4 - classroom door

Group 5 - arm chairs, cabinets

B. Analysis:

1. How did you measure the given task?
2. What type of measurement you use in getting the data on the given

problem? Why?

C. Abstraction:

1. What is the difference between Metric and English measurement?

D. Application:

Group the students into 3 and provide them with the needed materials. Let the students measure the given lay-outed areas at the garden site. Each group should gather the data by answering the following questions. After gathering the data, the output should be written in the Manila paper and let them discuss in the class.

1. What is the measurement of your area?
2. What is the distance between plants per rows?
3. What is the distance of plants between hills?

IV. Evaluation: Write the conversion of Metric to English Measurement and vice versa. Refers to Appendix A

Metric Measurement to English Measurement	English Measurement to Metric measurement
2 cm = inch	5 inch = centimeter
3 mm = inch	3 foot = centimeter
3 m = feet	3 yard = meter
5 m = yard	4 feet = meter

V. Agreement/Assignment

Compute the area or floor plan of your own house using metric and English measurement… writes it in one half sheet of paper.