MCAST
MALTA COLLEGE of ARTS, SCIENCE & TECHNOLOGY

Institute: Community Services
Unit:Foundation Mathematics
Duration: 1 hour

Lesson Plan: Units of Measure 1

Aims

1. To identify the Imperial and Metric systems of measurement.

2. To convert Metric units of measurement.

Objectives

1. Using diagrams to convert Metric units of measures.

2. Working out problems involving the conversion of Metric units of measurement.

Learning Outcomes

By the end of this lesson a student will be able to:

1. State the Imperial units of Length.

2. State the Metric units of Length.

3. Convert smaller Metric units of Length into larger units and vice-versa.

Resources

1. Full whiteboard

2. Topic flashcards & Blu-tack

3. Ruler, measuring tape, map distance measuring device.

Remote Preparation

1. N/A

Adaptation

Care gp.1: Explanation should be slow and repetitive due to students who suffer from attention deficit.

Care gp.2: Explanation should be bilingual due to a foreign student in the group.

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Introduction
1. Attendance
2. Systems of Measurement
In Malta, we have two systems of measurement:
Imperial system (used in Britain) & Metric system (used across Europe).
The main disadvantage of the Imperial system is that it has a lot of awkward conversions. The Metric system has the advantage that it is based on powers of 10, so is much easier to use and calculate with.
Time: 10 minutes

Development
Part 1: Length
1. **Pairwork:** Ask the students to list units of length measurement used in practise**.** Tabulate and distinguish students' answers between Imperial and Metric. Order the Metric units in ascending order.
Time: 10 minutes
2. **Pairwork:** Ask the students to list examples where the mm, cm, m and km are used.
Examples: mm – the thickness of a glass sheet
cm – the dimensions of a shoe box
m – the length of the classroom
km – the distance travelled by a car
Time: 5 minutes
3. *Exercise 1:* Foundation Mathematics for GCSE, exercise 21a nos: 1, 2, 3, 10
Time: 10 minutes

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Part 2: <u>Conversion of Metric Units of Length</u>

1. Metric relationships
10mm = 1cm
100cm = 1m
1000m = 1km

Time: 5 minutes

2. Stick flashcards of Metric units of length in ascending order.
Stick flashcards of arrows indicating conversion.
With the help of the students identify the conversion factors between units.

Time: 5 minutes

3. *Exercise 1:* Foundation Mathematics for GCSE, exercise 21b nos: 1 - 15

Time: 10 minutes

4. Ask students how to convert from mm to km and from m to mm.

Closure/Recapitulation
1. Systems of measurement.
2. Metric units of length.
3. To change small units to larger units, always divide.
4. To change large units to smaller units, always multiply.

Time: 5 minutes

Assessment Indicators/Key Questions
1. Involve students in working out problems involving the conversion of Metric units of length.
2. Ask different students to explain their own answers for different examples.

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Modifications / Support / Learning Patterns

1.

2.

3.

Assessment Due Date: N/A