

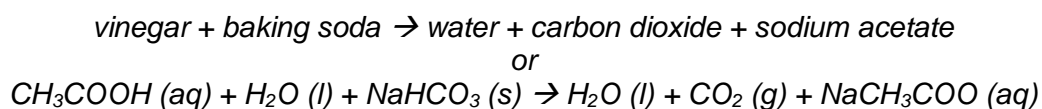
ASSIGNMENT  
DMCU 1233 – CHEMISTRY  
SEMESTER 1 2015/2016

# CO<sub>2</sub> POWERED MINI VEHICLE

## TASK

Develop a mini vehicles powered by CO<sub>2</sub> using vinegar and baking soda.  
Our goal in this project to always use excess vinegar to help make sure all the baking soda is dissolved and reacted.

The chemical equation as below:



Vehicles must be made by using waste materials. The design's concept is based on your own creativity. However, **no vinegar is allowed to spill out from the container**.

All materials must be provided by students.

Prepare the poster and short presentation (3 minutes) for this project.

## GROUP

16 group (4-5 students)

## POSTER

Size: A3.

Design: free, but must include necessary items that required inside of the poster (Introduction, Problem Statement, Objective, Methodology, Results and Discussion, Conclusion and References).

## VEHICLE SIZE

Length: min 25 cm to max 35 cm

Width: min 10 cm to max 20 cm

Height: min 10 cm to max 20 cm

# MARKS

Vehicle design concept (Product) = 5 marks

Poster & Presentation = 5 marks

Race 1 + Race 2 = 5 marks

Total marks = 15

*\*Refer Table 1 for details*

Table 1

PRODUCT												
Creativity	1	2	3	4	5	5%						
Originality	1	2	3	4	5							
Design and concept	1	2	3	4	5							
Functionality	1	2	3	4	5							
POSTER												
Content arrangement	1	2	3	4	5	5%						
Attractive	1	2	3	4	5							
Informative	1	2	3	4	5							
PRESENTATION												
Informative	1	2	3	4	5	5%						
Attractive	1	2	3	4	5							
Explanation and ability to answer question	1	2	3	4	5							
RACE 1 (longest distance in meter)												
Trial 1												5%
Trial 2												
RACE 2 (longest distance within specific range: 1 meter)												
Trial 1												5%
Trial 2												

Rank	Race 1	Race 2
	Marks	Marks
Champion	10	10
2	8	8
3-4	6	6
5-8	4	4
9-16	2	2