Separating Salt from Seawater   
**Task 3** Name:

Due: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

In many industries it is useful for scientists to be able to purify different materials. This may be because a higher purity comes with more ideal properties of that material (as is the case with many medications), or it might be because you want to extract one material from another (such as metals from ores). We can also use extraction and separation techniques to monitor concentration levels of particular chemicals.

For this task you will be provided with a seawater sample that has been cleaned of any biological matter. You will then use the separation technique of distillation to verify the amount of salt in the seawater, with the method discussed and done during the experiment.

After conducting the investigation, you will be required to write a scientific report based on your findings. Use the following format to write your report:

**Introduction**Introduce theory and background of the experiment, provide context for the reader. Include a purpose for the investigation and how it can be useful in industries.

**Aim**  
State the aim of the experiment.

**Experimental Work:**Include all relevant materials, safety considerations, and method you used. Method should be written in a step-by-step format, and easy to replicate by a third party.

**Results and Discussion:**A record of your results neatly presented, with an explanation of the findings. This may include comparison of your results with others, explanation of possible errors, comment on suitability of method and future improvements.

**References:**You must use at least two valid resources and reference them at the end of your report using APA referencing. If you are struggling with this, you should seek help with using the website citethisforme.com

Note that your discussion will require you to calculate the concentration of salt so that you can compare to the known salinity of seawater. This concentration is calculated using the following equation:

An in-class validation will be sat one week after completing the experiment. The validation will ask you to answer questions related to the report that you have written. Any report submitted on the Friday before the validation will be corrected and handed back.