**TITRATIONS ASSESSMENTS**

The 2018 titrations topic has two main components:

* **A 1 hour theory test** (worth ~50 marks) to test your understanding of theoretical concepts related to titrations, including primary standards, indicators, equivalence point and endpoint, rinsing procedures and calculations. This will be structured similar to other topic tests you have completed this year.
* **A 1 hour practical test** (worth 20 marks) which will require you to perform a titration and make calculations using this information.

**Information about the practical test:**

In the practical test you will be required to perform a titration to standardise an unknown solution. This will involve the use of analytical glassware including volumetric pipettes, volumetric flasks and burettes.

You will not have access to your textbook or notes during the titration. You will be provided with a general overview of what you need to do, but you will not be provided with explicit instructions. As such, you should make sure you are familiar with procedures for performing titrations.

You will not know what substances you will be required to titrate until you do the practical test. The practical test will involve either an acid-base titration or a redox titration. You should be familiar with indicators in case it is an acid-base titration, and you should be familiar with writing balanced redox equations in case it is a redox titration.

**MARKING:**

The marks in the practical test will be assessed as follows:

* **Pre-experiment questions: 3 marks**

Prior to completing the experiment you will be required to answer two questions about the procedure to check for your understanding. You will be required to answer these and get them marked before collecting equipment and starting the experiment.

* **Skill demonstrations: 2 marks**

During the experiment you will be required to show your teacher a full volumetric flask and a series of conical flasks demonstrating the endpoint of your reaction.

* **Titration results / Accuracy: 6 marks**

Your teacher will separately perform the same titration. You titre volume will be compared to theirs to judge your accuracy. To receive full marks you will need to be within the uncertainty range for this calculation (roughly ±0.5 mL).

* **Calculations: 9 marks**

You will be required to perform a number of calculations related to your titration

Up to 5-10% of your marks for the practical test will be deducted per occurrence if you fail to follow laboratory procedures such as not wearing safety glasses, filling up burettes from above eyelevel or failing to clean up. Marks will also be deducted if you use up/spill/waste your allocated volume of reagents and need to collect more.