**HOT WATER AND DISSOLVED OXYGEN TESTING**

**Aim:**  To determine the effect that the temperature of the water would have on dissolved oxygen levels.

**Hypothesis:**

As the temperature of the water increases this will cause the dissolved oxygen to decrease.

**Hot water:**

**Materials:**

* Standard beakerx6
* 200ml of water x6
* Bunsen Burner
* Thermometer

**Procedure:**

1. The Bunsen burner was set up appropriately
2. 200ml of standard tap water was poured into a beaker
3. The beaker was then placed over the Bunsen burner
4. Then the Bunsen burner was lit
5. The water was then heated to the temperature recorded at the creek site (14**°c)**, the thermometer was used to check this
6. Steps 2-6 were repeated two more times and the beakers were placed side by side
7. 100ml of standard tap water was then poured into each of the other three beakers
8. One by one, the beakers were heated up to the set temperature that was required. For every beaker a different temperature was required. A thermometer was used to measure the temperatures.
9. Once all the water was heated, 50ml of hot water was poured into each beaker with the creek temperature water. The three beakers then should have had 250ml of water in them
10. The beakers were then marked separately

**DISSOLVED OXYGEN TEST:**

**Materials:**

* 300mL flasks and stopper
* 2 mL pipettes
* Measuring cylinder
* Conical flask
* 2M manganous sulphate solution
* Sodium iodide solution
* Conc. sulphuric acid
* Starch indicator solution
* 0.025M sodium thiosulphate
* Diji pipette

**Procedure:**

1. Using a plastic pipette, 4 mL of water was withdrawn from the flasks
2. 2 mL of MnSO4 and 2 mL alkaline sodium solution was added
3. Solution was mixed well then a brown precipitate formed
4. We then waited until the precipitate has partially settled (until the top 2-3 cms of the solution is clear), then we withdrew 4 mL of clear solution and added 4 mL conc. Sulphuric acid.
5. The solution was mixed again, and the precipitate should have disappeared
6. Then we accurately measured 250 mL into the conical flask, then added 1 mL starch indicator solution.
7. Using the Diji pipette, we titrated with the sodium thiosulphate solution until the solution became clear (blue colour disappeared).
8. The volume of sodium thiosulphate used was recorded
9. All steps were then repeated with the other two samples