

Gathering of data



Gathering of Data In order to obtain sufficient data to prove that human activities have a negative impact along the Siyaya and Amanzimnyama river catchment, tests for silt, water clarity, pH level and temperature were conducted. The reason why only 4 tests were done was because the 4 tests were the main tests that are going to enable us to prove the hypothesis. The tests were done in 9 different sites of Amanzimnyama, Siyaya and the Confluence. All the results found were thoroughly tested and done more than once for accuracy. For the tests to be conducted, the following were used as seen on the picture below:

- 1) A shovel and a ruler to measure the silt of the soil.
- 2) A thermometer to measure temperature
- 3) A refractometer to measure salt content
- 4) A net used to collect aquatic organisms for the mini SASS investigation
- 5) Indicators were use test the pH of the water.
- 6) A water clarity tube to test the clarity of the water and a magnet.
- 7) An ice cream tub to keep the aquatic creatures and water in
- 8) A mini sass table Test for Silt Silt is defined as fine sand, clay or other material carried by running water and deposited as sediment, especially in a channel or harbour (<https://www.dictionary.com>). A large amount of silt in an area is an indication of a high level of pollution, therefore the results obtained determined whether the Amanzimnyama and Siyaya river catchments' were polluted or not. Apparatus: ruler and a shovel Method:

Step 1: A ruler was used to measure 60cm from the water's edge then 30 by 30 on the ground using a ruler.

Step 2: A shovel was used to dig a 30cm hole downwards (which was the size of the shovel plate/holder).

Step 3: The soil needed to be removed from the hole with a shovel, thereafter placed on the side.

Step 4: The ruler was placed inside the hole, on one side and from the bottom the length/amount of silt was measured; the soft part of the soil indicated the presence of silt in the soil.

Step 5: To test the silt we had to put our hands in the soil and feel how soft/hard the soil was and measure the length of soft/hard soil. Ethical issues: Once the measurements were recorded, the soil was put back into the hole to prevent the soil creatures from getting harmed. Limitations: The silt level was sometimes lengthy and required a ruler longer than 30cm, which made it hard for us to measure accurately