

**IB MYP YEAR 7**

**WATER PURIFICATION INVESTIGATION**

STUDENT NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_( ) HOMEROOM:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DUE DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Problem: Fresh water availability is a major problem in many parts of the world and it is a stated aim of the United Nations that by 2030 everyone will have safe water to drink.

Task: You and your group will design a method for purifying dirty water. The system must physically work and be portable so that it can be carried or moved from location to location.

* You will construct your apparatus outside of class time
* 1 period to present and demonstrate your apparatus and 1 period in which to write up and explain your system independently of the other members of your group

Instructions:

1. As a group you need to decide where your system will be employed and why it is applicable to that region in terms of available water and water quality.

Your system must physically work and you must demonstrate the process.

**ASSESSMENT RUBRIC FOR CRITERIA B AND D**

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| **Criteria** | **0** | **1 – 2** | **3 – 4** | **5 – 6** | **7-8** |
| **B**  **Scientific Enquiry** |  | Attempt to state a problem/question to be investigated  Method is unclear and cannot be repeated | The problem/question to be investigated is stated but is not completely clear  Method is clear with some errors. | The problem/question to be investigated is stated clearly.  Method is clear and the system is reasonably effective in its operation. | The problem or question to be tested is stated clearly outlined in a context of where the system will operate.  Method is logical and the system is very effective in its operation. |
| **D**  **Reflecting on the Impacts of Science** |  | Collect, organize, and present data in a table and graph with many errors.  Does not describe problems encountered and how they were dealt with.  Did not outline irrelevant weaknesses of system.  Outline improvements that are irrelevant, unrealistic and/or does not reflect weaknesses identified | Collect, organize, and present data in a table and graph with some errors  Describes problems encountered and how they were dealt with but without clarity and reasoning.  Outline some minor weaknesses of the system.  Outline some improvements based on the weaknesses identified | Collect, organize, and present data in a table and graph with few errors.  Describes reasonably clearly problems encountered and how they were dealt with.  Outline some major weaknesses of the system.  Outline improvements or extensions that are somewhat relevant and realistic based on the weaknesses identified | Effectively identified the problem of obtaining clean water in a specified area of the world.  Outlined a method for dealing with the problem and demonstrated how the method operates.    Outline all the major weaknesses of system.  Outline improvements or extensions that are relevant and realistic based on the weaknesses identified |