**EMERALD ROYAL INTERNATIONAL SCHOOL, MPAPE ABUJA**

**LESSON PLAN AND NOTE FOR WEEK 1 ENDING 5TH MAY, 2023**

**TERM: THIRD**

**WEEK : 1**

**DATE: 2ND - 5TH MAY, 2023**

**SUBJECT : CHEMISTRY**

**TOPIC : WATER**

**SUB- TOPIC : 1. sources of water.**

1. **The types of water.**
2. **Water pollutants.**

**PERIOD: 1ST**

**TIME : 8: 10 - 8 :50**

**DURATION:**  **40 minutes**

**CLASS: SS1**

**NUMBER IN CLASS:**  **7**

**AVERAGE AGE: 14 years**

**SEX: mixed**

**LEARNING OBJECTIVES: By the end of the lesson, the students should be able to;**

1. State the source of water.
2. State the types of water.
3. Lists and explain the water pollutant

**RATIONALE:** The students should understand the sources and types of water.

**PREVIOUS KNOWLEGDE:** The student have been taught the structure of water.

**INSTRUCTIONAL MATERIALS:** A chart showing the sources of water.

**REFERENCE MATERIALS:** New school Chemistry for Senior Secondary Schools by Osei Yaw Ababio .

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| **STEPS** | **TEACHER’S ACTIVITIES** | **STUDENTS’ ACTIVITIES** | **LEARNING POINTS** |
| **INTRODUCTION** | The teacher introduces the lesson by asking the students to state the sources of water. | The students were active. | To arouse the students interest. |
| **PRESENTATION**  **STEP 1** | The teacher states the sources of water. | The students pay attention. | To keep them focus for better understanding. |
| **STEP 2** | The teacher asks the students to state the types of water. | The students state the types of water. | To encourage critical thinking. |
| **STEP 3** | The teacher explains water pollutant. | The students pay attention. | To keep them focus for better understanding. |
| **BOARD SUMMARY** | WATER Water is a precious and natural resource on the planet earth. It is found all around us. Nearly two-thirds of the Earth’s surface is filled with water. Every living organism existing on our planet requires water for its survival, including plants, animals, birds, insects, etc.  Water is considered the most precious resource and essential requirement of life. All living things rely on water, and without which, there would be no life.  We humans can survive without food for a day or two, but we cannot stay without drinking water for a short amount of time because our body needs it for different types of [life processes.](https://byjus.com/biology/life-processes/) Sources of Water Meaning Water is a valuable natural resource found in different forms in [our environment](https://byjus.com/biology/our-environment/).  As per the Earth’s geography, there is a lot of water all around us, but it is not fresh water and not suitable for human use.  The available natural water is not pure forever. Excluding rainwater, all other water sources comprise salts and minerals deposits dissolved in it. These salts make the water impure, which is not fit for consumption.  There are two primary sources of water – surface water and groundwater.  The primary water sources used for drinking, cooking, washing, farming, and other commercial uses are surface water, groundwater, and collected rainwater.  These primary water sources depend on rainfall and snow, which form a part of the hydrological cycle. WATER POLLUTANT Water pollution occurs when harmful substances—often chemicals or microorganisms—contaminate a stream, river, lake, ocean, aquifer, or other body of water, degrading water quality and rendering it toxic to humans or the environment.  **SOURCES OF WATER POLLUTANT**  **1.AGRICULTURE -** Not only is the agricultural sector the biggest consumer of global freshwater resources, with farming and livestock production using about [70 percent of the earth’s surface water supplies](http://www.fao.org/docrep/w2598e/w2598e04.htm), but it’s also a serious water polluter. Around the world, agriculture is the leading cause of water degradation. In the United States, [agricultural pollution](https://www.nrdc.org/stories/industrial-agricultural-pollution-101) is the top source of contamination in rivers and streams, the second-biggest source in wetlands, and the third main source in lakes. It’s also a major contributor of contamination to estuaries and groundwater. Every time it rains, fertilizers, pesticides, and animal waste from farms and livestock operations wash nutrients and pathogens—such bacteria and viruses—into our waterways 2.Sewage and waste water Used water is waste water. It comes from our sinks, showers, and toilets (think sewage) and from commercial, industrial, and agricultural activities (think metals, solvents, and toxic sludge). The term also includes [storm water runoff](https://www.nrdc.org/stories/green-infrastructure-how-manage-water-sustainable-way), which occurs when rainfall carries road salts, oil, grease, chemicals, and debris from impermeable surfaces into our waterways. 3.Oil pollution Big spills may dominate headlines, but consumers account for the vast majority of oil pollution in our seas, including oil and gasoline that drips from millions of cars and trucks every day. Moreover, nearly half of the [estimated 1 million tons of oil](https://worldoceanreview.com/en/wor-3/oil-and-gas/oiling-the-oceans/?ivt=1" \l "ivt-101) that makes its way into marine environments each year comes not from tanker spills but from land-based sources such as factories, farms, and cities. At sea, tanker spills account for about 10 percent of the oil in waters around the world, while regular operations of the shipping industry—through both [legal](http://www.imo.org/en/OurWork/Environment/PollutionPrevention/OilPollution/Pages/Default.aspx) and [illegal](https://www.justice.gov/opa/pr/greek-shipping-companies-sentenced-pay-27-million-ocean-pollution) discharges—contribute about one-third. Oil is also [naturally released](https://response.restoration.noaa.gov/oil-and-chemical-spills/oil-spills/resources/what-are-natural-oil-seeps.html) from under the ocean floor through fractures known as seeps. | The students ask question for clarification. | To create room for slow learners. |
| **EVALUATION** | The teacher evaluates the students with the following questions;   1. State the sources of water. 2. State the types of water. 3. State and explain at least 3 water pollutants. | The students attempt the questions. | To ascertain their level of understanding. |
| **CONCLUSION** | The teacher concludes by copying note on the board. | The students copy the note into their note books. | For future use. |
| **HOME WORK** | Write a short note on soft and hard water. | The students did your assignment and submit for marking and correction. | To encourage the students to study at home. |



9/5/2023

Principal Head Instuctor