Study on the Impact Of Green Chemistry In Secondary School Students' Daily Life

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Abstract

The goal of the current study was to determine how green chemistry might be used in daily life to produce environmental Consciousness among students in secondary education. Through When the investigation was conducted, the researcher discovered that the notion of was generally understood. Green chemistry for kids in secondary education That is, eighty percent of students in secondary schools have An average degree of familiarity with the idea of Green chemistry, with 64% of the pupils possessing Average awareness of day-to-day activities Use of environmentally friendly chemicals. The results have shown that pupils in secondary schools are Eager to use environmentally friendly chemistry in of their course work.

Keyword: - Green Chemistry, Need of Green Chemistry,

Introduction

The newest and fastest-growing area of chemistry is called "green chemistry." The adoption of green chemistry is seen as an opposition to the requirement that reduce the environmental damage caused by synthetic goods and the processes that go into making them. Anything from could be included in green chemistry. Minimising waste to the point of properly disposing of waste manner. All chemical wastes should be properly disposed of. In the most effective manner without endangering anyone to both humans and the environment. The Verdant An ideal subject for a school curriculum ischemistry. Devoted to ensuring the welfare of its accountable Citizens who uphold fundamental human values. The principles of Green Chemistry that can energize our classrooms And bring longterm meaning and direction to a Component of academic research await clear Definition.Green

Chemistry is a pro-active approach to Pollution prevention.

It targets pollution at the Design stage, before it even begins. If chemists are Taught to develop products and materials in a manner That does not use hazardous substances, then much Waste, hazards and cost can be avoided. Green Chemistry is designing chemical products and Processes that reduce or eliminate the use and/or the Generation of hazardous substances. The Green Chemistry concepts that can invigorate our classrooms and provide a long-term purpose and direction for A part of scholarly investigation that awaits clarification Explanation.Green Chemistry is an aggressive strategy for Prevention of pollution. It goes after pollution at the Design phase, even prior to its initiation. If chemists are Trained to create materials and products in a That doesn't employ dangerous materials, then a lot Cost, waste, and risks can all Verdant Designing chemical avoided.

products is the field of chemistry. Procedures that lessen or do away with the usage and/or the production of dangerous materials. As used by the IUPAC Working Party on Synthetic Pathways and Processes, the term "Green Chemistry" Is described as follows in Green Chemistry: "The invention, the creation and use of chemical products, as well as procedures to cut down on or stop using and Production of dangerous materials.

Green chemistry and environmental science share the goal of improving the world. Each of the two complements the other. Surroundings pinpoints origins and Science clarifies mechanisms. And measures issues with the environment on Earth. Green Chemistry aims to address these issues through developing safe, alternative technologies. Verdant Environmental chemistry is not the same as chemistry. Verdant Chemistry aims to prevent pollution at its origin. During a chemical product's design phase or process, thereby stoppingpollution before it starts. The development of green chemistry has altered our way of life. In this paper, a few instances of green chemistry implementation are presented. Ideals for domestic use and daily existence. Several examples of how green chemistry is used in daily life are Water washing may cause deterioration, stretching, or shrinkage. In another manner, multiple garments that are manufactured of textiles. It is recommended to "dry-clean" these clothes. Within Dry cleaning is actually not dry at all. In the laundry Cleaning is done with solvents other than water.

Methods & Material

Approach used for the investigation

For the investigation, the researcher used the survey approach.

Instruments employed in the investigation

A questionnaire was created by the investigator to gauge secondary school students' awareness of green chemistry and its applications in everyday life. 25 The investigator had prepared the questions. Questions 1 through 13 tested knowledge of in the direction of green chemistry, and queries from 14 to 25 were used to gauge their knowledge of the everyday green chemistry's applications in daily life

Sample chosen for the investigation

Fifty students were chosen as a sample by the investigator from Government H S SKazhakkuttom, Trivandrum.

Methodology used for the investigation -

The researcher created a survey with twenty-five questions, which she distributed to fifty Govt. H S S secondary school students. Kazhakuttom to determine the degree of consciousness of secondary school pupils regarding the idea of The practical applications of green chemistry in daily life.

The statistical methods used

Analysis of percentages, mean, median, mode, and SD

Conclusion

The field of green chemistry is not a recent one. It is a novel philosophical perspective that applies and expands upon the green Chemistry has a role in sustainable growth. There are still a lot of efforts made to Create a perfect procedure that begins with non-polluting componentsThere is still a lot of work being done to create the perfect process that begins with non-polluting materials. The challenge for the future is evident. The chemical industry's primary focus is on creating safer goods and procedures created using innovative Concepts in basic science. Additionally, the Green chemistry's success is reliant on training. And training of a fresh batch of chemists. All levels of students must be introduced to the Application of environmentally friendly chemistry. Lastly, with reference to the most important role of education in green chemistry Utilising Green Chemistry's Guidelines in Practise.

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Since environmental pollution is growing worse every day, we must switch to safer chemicals instead of ones that are bad for the environment. Green chemistry, or sustainable chemistry Principles assist us in creating this setting. Free of pollution.

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References

- 1. Ahluwalia, V. K., &Kidwai, M. "New Trends In Green Chemistry". Anamaya Publishers: New Delhi, 2004.
- 2. Agbayewa, J. O., Oloruntegbe, K. O., & Alake, E. M. "Incorporating green chemistry Concepts into the senior
- 3. secondary school curriculum". In International Journal for Cross-Disciplinary Subjects in Education (IJCDSE), 3
- 4. (3), 2013.
- Anastas, P. T., &WarnerGreen, J. C. "Chemistry: Theory and Practice". Oxford University Press, New York,
- 6. 1998.
- 7. Cann, M. C. "Bringing State-of-the-Art, Applied, Novel, Green Chemistry to the Classroom by Employing the
- 8. Preeti Nigam, Shobha Waghmode, Michelle Louis, Shishanka Wangnoo, Pooja Chavan and Dhiman Sarkar.

- Graphene quantum dots conjugated albumin nanoparticles for targeted drug delivery and imaging of pancreatic cancer. J. Mater. Chem. B, 2014, 2, 3190-3195, DOI: 10.1039/C4TB00015C.
- Omkar Pawar, Neelima Deshpande, Sharada Dagade, Preeti Nigam-Joshie, Shobha Waghmode. Green synthesis of silver nanoparticles from purple acid phosphatase apo-enzyme Omkar isolated from a new source Limonia acidissima. J.of Expt.Nanoscience.,doi.org/10.1080/1745 8080.2015.1025300, Published online: 27 Mar 2015.
- Graphene Foam: Next Generation Graphene Analogue, Butala Deepali and Waghmode Shobha, Research Journal of Chemistry and Environment Vol. 24 (8)August (2020), 1-11.
- 11. Patil, U.D., Waghmode, S., Pingale, S.S. et al. Quinoline-infused graphene carbon cages: an ecofriendly approach towards environmental remediation. Res Chem Intermed 49, 4217–4237 (2023). https://doi.org/10.1007/s11164-023-05098-0
- 12. Shobha Waghmode, Pooja Chavan, Vidya Kalyankar, and Sharada Dagade. Synthesis of Silver Nanoparticles Using Triticum aestivum and Its Effect on Peroxide Catalytic Activity and Toxicology. Journal of Chemistry, Volume 2013, Article ID 265864, 5 pages, http://dx.doi.org/10.1155/2013/265864.

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Table

Table 1
Descriptive Statistics of the Sample

	Mean	Median	Mode	SD 1.89	
Awareness on Green Chemistry	6.24	7	7		
Daily life applications of Green Chemistry	4.86	5	5	1.69	

Table 2

Percentage of Students with Low, Average and High Awareness on Green Chemistry and on the Daily

Applications of Green Chemistry

	Low	%	Average	%	High	%
Level of awareness on Green Chemistry	6	12	40	80	4	8
Level of awareness on daily life applications of Green Chemistry	10	20	32	64	8	16