GOVERNMENT OF NATIONAL CAPITAL TERRITORY OF DELHI DIRECTORATE OF EDUCATION: SCIENCE & TV BRANCH OLD GARGI COLLEGE BUILDING: LAJPAT NAGAR-IV; NEW DELHI-110024

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F.No. DE.40(6)/Sc.Br./Sc. Stream/2024-25/817-822

CIRCULAR

Date: 04/07/2024

Subject: Guidelines for Maintenance and Safety of Science Laboratories in Schools under DoE, GNCT of Delhi.

Science Laboratories are essential and critical component in Science Education. All students study Science as a compulsory subject up to grade X and a significant percentage of them continue studying Physics, Chemistry, Biology and Home Science at Sr. Secondary Level. This requires conduct of regular practical work and use of variety of equipment, instruments, gadgets, materials, chemicals, glassware etc. Hence, it is of utmost importance that the safety of students working in Science Laboratories should be ensured.

In this regard, the Directorate of Education has issued directions from time to time asking the schools to take all safety measures for avoiding any adverse situations and ensuring safety of students in the school.

In order to ensure maintenance and safety of Science Laboratories, there is a need to look into its various aspects and to follow the guidelines given as under:

- 1. Designing of all science laboratories according to norms and standards of CBSE.
- 2. Two wide doors for unobstructed exits from laboratory.
- 3. Adequate number of fire extinguisher near science laboratories.
- 4. Composite Science Labs up to all secondary level schools should be fully equipped, functional and well maintained by the concerned Lab In-charge for proper use by the students.
- 5. Science labs for Senior Secondary level (Schools with Science Stream at +2 level)-Separate Physics, Chemistry and Biology labs should be fully equipped, functional and well maintained by the concerned Lab In-charge for the proper use by the students.
- 6. Regular checking of vulnerable points in the laboratories in relation to possibility of mishappening.
- 7. Ensuring that the gas fitting in Chemistry Laboratory fulfill desired norms and standards.
- 8. Periodical checking of fitting/insulations for replacement and repairs.
- 9. Timely and repeated instructions to students for careful handling of chemicals and items of equipment in the laboratories but teachers should not demotivate them for using the same.
- 10. Display of Do's and Don'ts in the laboratories at prominent places.
- 11. Display of list of Experiments and activities in the laboratories as per syllabus.
- 12. Safe and secure storage of all chemicals.
- 13. Proper labelling and up-keeping of chemicals.
- 14. Proper safety and protection provision should be followed while doing practical work.
- 15. Careful supervision of students while doing practical work.
- 16. Conduct of any additional experiment work only under supervision and with due advance permission.

- 17. Availability of first aid and basic medical facilities in the school.
- 18. Proper location of the laboratories.
- 19. All Science labs must be functional and approachable to all concerned students for practical.
- 20. Consumable and non-consumable register of each laboratory should be maintained and updated regularly.
- 21. Apparatus and items of equipment of each lab should be placed at safe place/store.
- 22. Instruction to students for cleaning of apparatus like test tube, beaker etc. should be done under the supervision of the Lab In-charge after experiments in chemistry lab.
- 23. Lab manual of each lab at Secondary and Sr. Secondary level should be available in each lab for easy reference to the lab assistant, students, and teachers.

Further, Science Branch may depute an expert team from Science Centres to visit the Schools to ensure the implementation and monitoring of all the maintenance and safety measures in Science Laboratories of Schools under DoE.

Therefore, all the HoSs of Govt./Govt. Aided/Pvt. Unaided Recognized schools of DoE are requested to take all the maintenance and safety measures in the Science Labs and to disseminate the above guidelines to all the teachers and students for greater awareness and sensitization on safety matters.

This issues with the prior approval of the competent authority.

(Dr. Sudhakar Gaikwad) Dy. Director of Education (Science)

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Copy for information and necessary action to:-

- 1- PS to Secretary (Education), GNCT of Delhi.
- 2- PA to Director, Directorate of Education, GNCT of Delhi.
- 3- All DDEs (Zone/District) to ensure the compliance, please.
- 4- In-charges of all Science Centres (SCW-I/II/III/IV).
- 5- HoSs of all Govt./Govt. Aided/Private Unaided recognized Schools of DoE, GNCTD.
- 6- OS (IT) with the request to upload the circular on the official website of Department of Education and in public circulars section.

(Dr. Sudhakar Gaikwad) Dy. Director of Education (Science)