

### POLICY ON SCHOOL LABORATORIES

Introduced	December, 2015
Review 1	December 2021
Review 2	December 2023
Next Review	December 2025

**DEFINITION:** Laboratories are facilities that provides controlled conditions in which scientific or technological research, experiments, and measurement are performed. It aims at developing the experimental design skills method which forms the basis for all scientific investigation.

#### PURPOSE:

To ensure that students develop critical comparison of experimental results with theory or simulation. To ensure that they receive appropriate guidance and training, and suitable procedures are followed in the following labs

- Chemistry laboratory
- Physics laboratory
- Biology laboratory
- AI laboratory
- Mathematics laboratory
- Computer Laboratory

#### SCOPE:

This Policy applies to all students using the school laboratory for demonstrations and experiments.

#### SCIENCE LABORATORIES:

Science laboratories include Chemistry, Physics, and Biology.

#### RESPONSIBILITIES

#### Rules for Pupils Using the Science Laboratory

1. Wait outside until your teacher asks you to go in.

- No student will enter the science labs with their blazers or huddies. Scarves must be securely tucked in their shirts and the girls should tie up their hair.
- Do not carry anything other than your lab journal and writing material into the labs.
- Walk to your place, never run; avoid knocking into equipment.
- Wait until your teacher tells you before touching any equipment or materials. You will be safe if you follow instructions.
- Wear goggles, gloves and laboratory coats when told to do so. Keep them on until asked to remove them.
- Always stand up when working with liquids or heating a substance. Then you can move out of the way quickly if anything is spilt. Do not lean over the work stations.
- Never rub your eyes or your put your hand to your mouth if you are working with chemicals.
- Never taste anything or put anything in your mouth when in the laboratory. This includes sweets, fingers and pencils which might have picked up poisonous chemicals from the bench. Never taste or smell chemicals unless instructed to do so.
- If chemicals get on your hands or any other part of the body, wash them off immediately. After handling chemicals, equipment, plants or animals, always wash your hands.
- Report any burns and cuts. Report if any chemicals are spilt, go into your mouth, your eyes or onto your skin.
- Be alert and proceed with caution at all times in the laboratory. Notify the teacher immediately of any unsafe conditions you observe.
- Dispose off all chemical waste properly. Never mix chemicals in sink drains. Sinks are to be used only for water. Check with your teacher for disposal of chemicals and solutions.
- Keep your bench clean and tidy.
- Follow the teacher's instructions inside the Laboratory

### Conducting experiments in classroom:

Simple experiments can be conducted in class by borrowing equipment and apparatus from the Science laboratories.

- Sources of heat** - electric kettle, lighter, candle can be used in class room after proper risk assessment by the teacher. Prior intimation should be given to the safety officer before conducting such experiments in class.
- Chemicals** - 'kitchen chemistry', e.g. foodstuffs, sugar, salt, vinegar, yeast, bread, also limewater can be safely used. However, more hazardous substances which may be purchased in shops, such as sodium hydroxide and bleaches, are banned from use in the classroom.
- Borrowing Equipment** - equipment may be borrowed from the Laboratory, with the permission of the Designated Laboratory Supervisor.

### Disposal of Chemical Residues.

1. When chemicals are left for the Designated Laboratory in-charge to dispose of, he or she should be informed and the residue labelled with the name of the experiment should be mentioned.
2. Expired and outdated chemicals should be brought to the notice of the safety officer and the admin officer.

### Chemical spill emergency

- The cleanup of a chemical spill should only be done by knowledgeable and experienced personnel.
- Spill kits with instructions, absorbents, reactants, and protective equipment should be available to clean up minor spills.
- A minor chemical spill is one that the laboratory staff is capable of handling safely without the assistance of safety and emergency personnel. All other chemical spills are considered major.

### Minor Spill

- Alert students in immediate area of spill.
- Wear protective equipment, including safety goggles, gloves, and long-sleeve laboratory coat.
- Avoid breathing vapors from spill.
- Confine spill to small area.
- Use appropriate kit to neutralise and absorb inorganic acids and bases. Collect residue, place in container, and dispose as chemical waste.
- For other chemicals, use appropriate kit or absorb spill with dry sand. Collect residue, place in container and dispose as chemical waste.

### Major Spill:

- Attend to injured or contaminated persons and remove them from exposure.
- Alert people in the laboratory to evacuate.
- If spilled material is flammable, turn off ignition and heat sources.
- Call for assistance.
- Close doors to affected area.
- Inform the SMT and the safety officer.

### Chemical spill on body:

- Flood exposed area with running water from faucet or safety shower for at least 5 minutes.
- Remove contaminated clothing at once.
- Make sure chemical has not accumulated in shoes.
- Obtain medical attention, if necessary.

- Report incident to supervisor and safety officer.

### Hazardous material splashed in eyes:

- Immediately rinse eyeball and inner surface of eyelid with water continuously for 15 minutes.
- Forcibly hold eye open to ensure effective wash behind eyelids.
- Obtain medical attention.
- Report incident to supervisor and safety officer.

All laboratory accidents must be reported to teacher, Lab in-charges. This includes:

- Fires
- Explosions
- Large hazardous material spills
- Serious injuries (e.g. concussion, crushing, fracture, burn, laceration with serious bleeding or requiring stitches, or hospitalization)
- Laboratory-acquired infections
- Exposures to hazardous materials, including biohazardous material
- Incidents that have the potential to cause serious injury or harm

### AI LABORATORY:

1. No Food and water allowed in the AI laboratory.
2. Respect your fellow students' right to a quiet & productive learning environment
3. Don't stop others from learning.
4. Always move safely in and around room.
5. During certain busy times during the day, we ask that you limit your computer use if you are not working on academic material. If there are people waiting to use the computers, please be courteous to those who need to work on school related things.
6. Personal things and files are your responsibility.
7. Items labeled as "Staff Only" must be handled by staff only; general users should not touch them.
8. Ask the lab in-charge before handling any items that you are not sure if you may handle it.
9. Ask the lab in-charge for permission before you need to move things in/out of the lab.
10. Start of class.
  - Set-up work tables
  - Procure equipment only with the permission of the lab in-charge.
  - Follow the instructor's instructions.
11. End of class.
  - Take-down and put away work tables.
  - Log out of computers, push in chairs.

- Clean up your work stations before leaving
12. AI kits
- You will be assigned a numbered Mindstorms kit which you must sign for.
  - If you lose or damage any kit pieces, you must pay for the replacement.
  - All robot kits and parts must stay in the lab or designated area at all times.
  - If you do not turn in a complete kit at the end of the term, you will receive an incomplete remark until the full kit is complete.
14. 3D Printer
- 3D printer can be used only after prior approval of the teacher or lab in-charge.
  - The 3D printer may NOT be used to create material that is:
    - ✓ Prohibited by local, state or federal law.
    - ✓ Unsafe, harmful, dangerous or poses an immediate threat to the well-being of others.
    - ✓ No firearms or other weapons, obscene or inappropriate objects may be created using the 3D printer.
    - ✓ In violation of another's intellectual property rights. For example, the printers will not be used to reproduce material that is subject to copyright, patent or trademark protection. Computer work
15. Unmanned Aerial Vehicle (Drone)
- The UAV cannot be flown beyond line of sight.
  - The UAV may not rise higher than 400 feet in altitude.
  - UAV must not have metal blade propeller.
  - UAV's must not be flown directly over unprotected people, property and structures.
  - UAV's are not to be flown in a reckless or careless manner.
  - UAV's that are made for indoor/outdoor use are permitted in designated areas only.
  - Operating the UAV beyond the established designated perimeters are strictly prohibited.

### **MATHEMATICS LABORATORY:**

1. No Food and water allowed in the Math laboratory.
2. Treat the recourses with care and respect; they will be used for years to come!
3. Respect your fellow students' right to a quiet & productive learning environment
4. Don't stop others from learning.
5. Always move safely in and around room.
6. Personal things and files are your responsibility.
7. Items labeled as "Staff only" must be handled by staff only; general users should not touch them.
8. Ask the lab in-charge before handling any items that you are not sure if you may handle it.
9. Ask the lab in-charge for permission before you need to move things in/out of the lab.
10. Start of class.

# Dunes International School

Plot no 19; Shabiya 9; Mussafah; Abu Dhabi; P.O Box 5121  
Tel.: 0097125527527  
School code: 90201 | Affiliation number: 6630051



## مدرسة ديونز الدولية

رقم قطعة: ١٩, شعبية ٩, مصفح, أبوظبي. ص ب : ٥١٢١  
هاتف: ٠٠٩٧١٢٥٥٢٧٥٢٧  
كود المدرسة: ٩٠٢٠١ | رقم الانتساب: ٦٦٣٠٠٥١

- Set-up work tables
- Procure equipment only with the permission of the lab in-charge.
- Follow the instructor's instructions.

### 11. End of class.

- Leave the equipment used by you on the table and inform the lab in charge.
- Ensure you collect all your things before leaving.
- Push in chairs.
- Clean up your work stations before leaving

### Amendments:

Review 1	No Changes
Review 2	No Changes

Principal Mr. Paramjit Ahluwalia	
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