

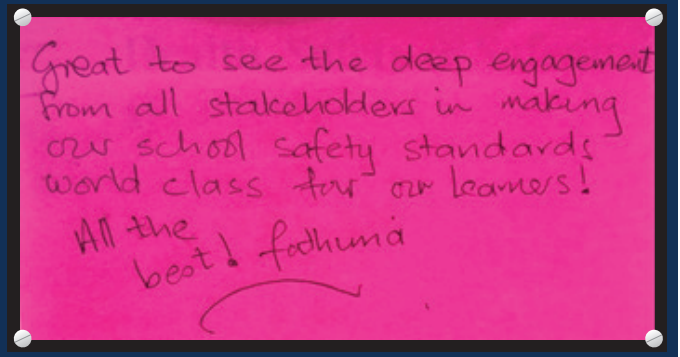
Quarterly Newsletter

Editorial Board: Udayakumar K, Cdr. Narendra Kumar

Volume 6 Issue, June 2018



Fathima Dada
MD: Global Schools



Index

- Message from Leaders and Stake holders
- The quarter that was :
 - Incidents: March - May 2018
 - HSCP activities/ Initiatives
- Technology Section
- Nurturing Engagement
- Way Forward: Ensuing quarter activities



John Maxwell

Health & Safety Manager (EMEA & India)

The Global Health and Safety Team along with school teams have identified a wide range of chemicals which are used to support operations in Indian schools: including routine cleaning, disinfection (in the management of disease), refurbishment, swimming pool maintenance and laboratory lesson activities.

If not managed properly, chemicals with a classification (e.g. irritant, sensitising, corrosive, oxidising and flammable) can pose a risk to health and to the environment.

These chemicals can enter the body via the lungs (inhalation), through the skin (absorption) and through the digestive system (ingestion). They can also be released into the environment through drainage systems and poor waste disposal practices.

To support compliance with the Pearson Standard for maintaining an effective chemical management program, the following information has been included in the HSCP Manual published in May 2018:

- ▶ Clear guidance on chemical management, storage, labelling, use of Material Safety Data Sheets (MSDS), emergency procedures, first aid arrangements and Personal Protective Equipment (PPE) to cover all known chemicals in schools.
- ▶ A laboratory Safety Policy providing clear responsibilities, safety rules and arrangements, management checklists considerations, alongside student based lesson risk assessment tools

There remains a need for continued vigilance by everyone in schools to ensure chemical safety controls are fully embedded and monitored. Chemical use, storage and disposal must be in line with MSDS information and procurement systems should be routinely challenged regarding the supply of safer chemical alternatives (where possible). PSI audits and routine inspections must include a clear focus on chemical safety and ensure any previously identified lessons have been learnt. These include the elimination of drinking bottles that contain diluted chemicals, removal of inappropriately labelled chemical containers, correct use of PPE and actions to control any inappropriate chemical storage/disposal practices. This activity should also ensure all chemical users fully understand, and can implement, the relevant risk assessment controls.



Wrongly Labelled bottle used for storage



Unlabelled bottle used for storage



Deblina Saha

Deputy Manager-Academics
JDS Schools Kolkata

'A comprehensive approach to
Laboratory and Chemical Safety in
School'

The increasing demand in middle and high school science curriculum leans toward fostering hands-on, inquiry-based laboratory investigation, and exploration for students. Schools are recommended to take precautionary actions to minimize hazards, harmful exposure, and injuries in

school laboratories.

The establishment of an academic institution that provides students with a safe learning environment could be achieved by observing or implementing relevant protective measures. Creating an environment of awareness about hazardous impact of chemicals, how to handle them and how to store them is of utmost importance for safety in schools.

Few things to keep in mind specifically for the school setting includes:

- **Storage** – Improper storage can create an unsafe environment, especially when children are involved. Being certain that chemicals are in proper containers, not stored next to incompatible chemicals, or are not leaking is required to be checked regularly.
- **Personal Protection Equipment** – Emergency first aid equipment such as gloves, goggles, masks and eye wash bottles should be checked each month to ensure they are working properly. Staff and students should be trained how to properly use them regularly and in case of an emergency.
- **Communication** – When chemicals are kept on-site all employees should have a knowledge of these chemicals and their potential hazards. A hazard communication plan will outline these dangers and train employees how to respond in an emergency.
- **Labelling** – In a school setting it is especially

important for students to understand what chemicals they are about to handle and the hazards associated with each one. Communicating the hazards of a chemical using proper labelling versus not, can mean the difference of a great learning experience or a serious injury.

- **Training** – It is mandatory that all teachers are trained in how to work with, store and dispose of chemicals in a safer way before working in school science labs with students. Before any experiment or demonstration, teachers must do a hazard analysis, a risk assessment and a review of safety actions with equipment like safety goggles and gloves on hand. And there should be a dry run first, without students in place.
- **Inventory & Safety Data Sheets (SDS)** – Having an adequate written inventory can assist in the event of fire, life threatening situations, or many situations where emergency responders need this information to make safe decisions. To go along with the inventory should be a SDS for each chemical so everyone knows how to handle a situation involving chemicals on-site.
- **Record Keeping** – It is a mandate to keep an accurate record of accidents in the laboratories.

To create a safe science classroom or laboratory, the school should provide teachers with the right tools, adequate knowledge, and the proper educational safety solutions. Teachers and laboratory staff should also be made aware of their legal and professional obligations and responsibilities for safety in the laboratory.



Anuradha Shivaram

Principal
Manipal School, Mangalore

The ability of any school to instill in its students a solid background in Science requires the implementation of a science curricular that fosters scientific enquiry and engages students in practical experience. The school laboratories are typical examples of such curricular requirements. But unfortunately working in a science laboratory is often associated with the potential exposure to hazardous material and the risk of accidents. Creating and ensuring a safe learning environment in a school laboratory and preparing students who are productive, respectful and easily supervised have become a major concern for most schools.

We as educators must pay attention to safety issues in the lab as our middle and high school science curriculum leans towards fostering hands-on enquiry based learning for students who have probably not trained on safety processes in the laboratory. Emphasis on teaching laboratory safety has grown over the past few years. Experience has shown that teachers knowledge of the hazards and risks in school laboratories is not as much as deserved. Thus, the development of a safety policy is a necessity in every school. Safety training sessions should be conducted for students and teachers. Safety Data Sheets should be used to understand the storing, handling and disposing of chemicals. The list of safety habits includes, use of PPE by lab attenders at all times and other lab safety equipment such as fire extinguishers and safety showers should be maintained in fully functional state.

The nuts and bolts of safety can be learned in a science laboratory because a lot of students do not have the opportunity to learn them at home or in any other classes in school and careless actions are prohibited in the laboratory.

Overall, it can be said that the safety vision of a school is driven by the safety vision of its administration and training teachers to be role models for safety practices is one of the basic elements of the creation of a positive safety culture in schools.



John Alex

Deputy General Manager
School Management, Pearson India, Hyderabad

Safety Precautions in Science Lab

Communication is the key to safety in science laboratories especially as it involves young curious learners. Science laboratory is essential to hands-on learning, but they do subject students to many dangerous situations from toxic chemicals to fire. Hence there is a need for a comprehensive approach to laboratory safety in schools.

It is suggested that teacher explain the experiment in detail and students encouraged to ask questions in the classroom before entering the laboratory. In case of doubts students to raise hand and teacher to approach the student. There should be no movement in laboratory with chemicals in test tubes to avoid potential accidents. Encourage students to report every accident to teacher immediately however minor it might be. Laboratories to have CCTV surveillance and regular monitoring to be carried out.

Personal Preparation Tips for Lab Experiments

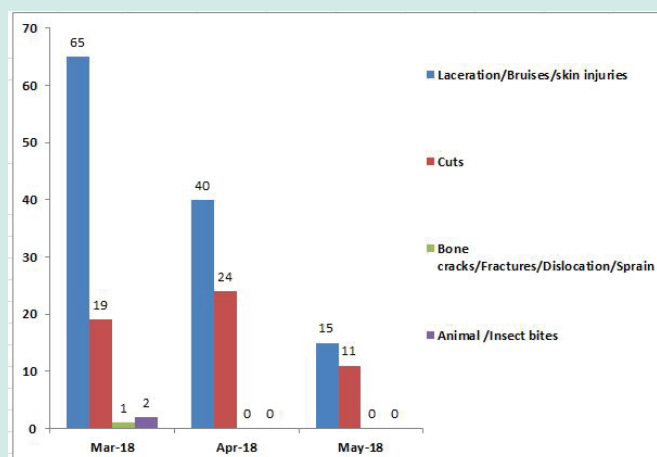
- Before you begin your experiment, it's important to make sure you're wearing the appropriate clothing and safety gear.
- **Pull Back Your Hair.** Loose hair and loose clothing like scarves can easily catch fire or get caught in equipment during your experiment.
- **Wear Goggles.** Always wear safety goggles in the science classroom when you're conducting any kind of hands-on experiment. Need to protect your eyes from harmful vapours, splashes, and burns.
- **Put on Protective Clothing.** Depending on the requirements of your school and the type of lab you are conducting, you may need to wear lab aprons and gloves to protect your skin and clothing.
- **Avoid Touching Your Face.** When you have started the lab experiment, avoid touching your face with your hands. Your hands may have traces of acid or other chemicals, and these could get into your eyes or mouth.
- **Don't Eat or Drink.** Never bring a drink or a snack into the lab with you. We have seen cases where children have consumed acids as a challenge.
- **All Equipment to be turned off.** Turn off burners, warmers, and other equipment when you're done with it.
- **Clean Surfaces.** You should wipe off your lab table and any other work surfaces. This will remove potential corrosive materials and keep other people from getting burned or hurt from spilled chemicals.

In conclusion, a conscious approach to safety alone can help avoid accidents in laboratory.

The Quarter that Was...

HSCP Incidents: Period March – May 2018

In general, April – May being school vacation months a dip in the overall incident numbers is observed. Majority of the reported incidents in the period belongs to the category laceration/bruises/cuts. Based on the trend analysis it is advised that we keep an eye for slip, trip and fall hazards, educate our learners on fall - slip, trip prevention, spill handling, importance of caution board, signage use, proper footwear usage, avoiding distractions while walking. Needless to say that fore warned is fore - armed.



HSCP Incident data for the period Mar 2018-May 2018



HSCP activities / Initiatives around our Schools

1. Pearson Schools Annual Conference

Pearson Schools Annual Conference (PSAC) 2018 was held during 06- 09 May 2018. This was the first annual conference where HSCP coordinators were also invited to attend the program. PSAC also comprised programs and team activities on health safety risk assessment and analysing the child safe guarding case studies. Cdr. Narendra delivered a talk on “Bullying in schools” which was followed with a video message from our Global Safeguarding officer Mr. Shaun Kelly. Revised HSCP manual was unveiled by Mr.Vikas Singh, MD of Pearson India Education Services Pvt.Ltd, who handed over the copies to Mr.Harish Doraiswamy and Mr. Jairam B. The occasion was also used to unviel the HSCP logo.



2. HSCP Orientation In Schools

All schools conducted Teachers Orientation Program (TOP) for all staff on Health Safety and Child Protection topic. This program was delivered by HSCP leads, Regional Academics Leads and Cluster Heads in the Schools. This program has covered 567 staff in 9 schools as on date.



Cdr.Narendra delivering Corporal Punishment session at Tattva School Bangalore



Nidhi Thapar delivering Corporal Punishment session at TMPIS Surat



Parshvadeep delivering Health & Safety Orientation in Amanora Schoo Pune



Arti Mandhanias delivering Health & Safety session in PSK Hyderabad



Atiya Khan delivering Corporal Punishment session at Hillside School Hyderabad

3. World Environment Day Program in Pearson Schools

On June 5 our schools organised various programs and campaigns to celebrate World Environment Day. The activities included tree plantation, green rallies, ban plastic awareness program, poster and slogan competition. Glimpses of some of these activites is shown below.



Amanora Students in World Environment Day rally held in Amanora Township



Staff of TMPIS distributed eco-friendly bags to VR mall customers



Tree Plantation by students of Tattva School



Students presented skit “Plastic pollution awareness” in JGS Habsiguda



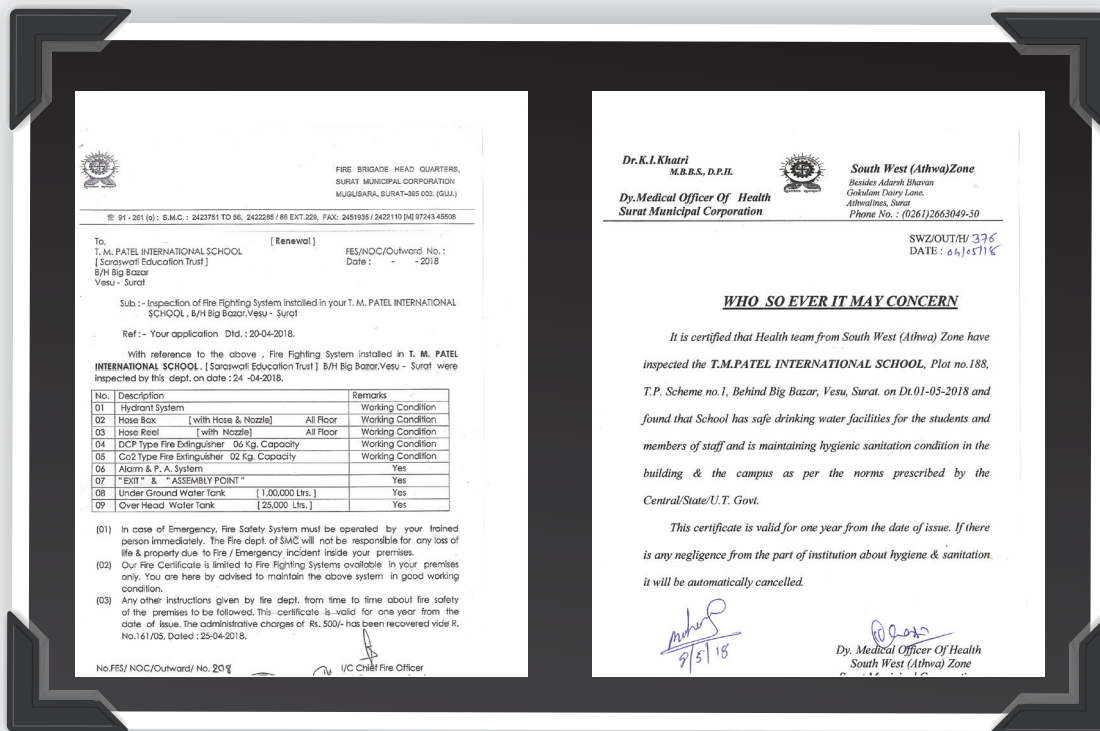
Manipal students made tote bags during World Environment Day



Plant sapling distributed in Shishya School

4. Awards and Certification

TM Patel School Surat has received Health and Sanitization, Fire and Building stability certificate from Surat Municipal Corporation



Other HSCP activities in Schools



Traffic & road safety awareness program organised in JGS Mallapur with the support and presence of traffic police inspector



Elevator safety training organized in Amanora School through external agency



HSCP and POCSO workshop held in TMPIS Surat



HSCP Orientation session at Tattva School



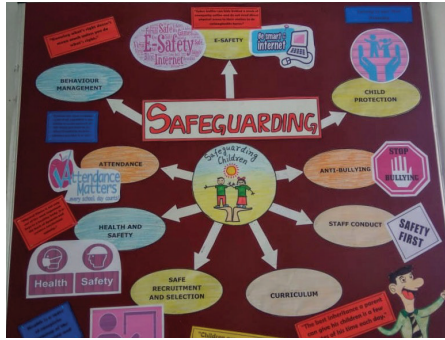
Student circle time on HSCP topic at Hillside School Hyderabad



Fire Safety & First Aid training for learners at Amanora Pune



Staff Training on Corporal Punishment and Abuses at Banyan School Jammu



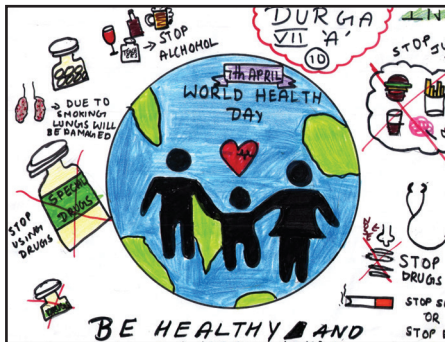
Safeguarding awareness poster displayed at Banyan School Jammu



HSCP coordinator conducting Staff orientation on HSCP at Manipal School



Lab Safety & PPE usage training program for Students held in Schools



Poster developed by students on World Health Day at JGS Habsiguda



Fire Evacuation drill conducted at JDS Ganganagar



Training and awareness on CSA/POCSO at JDS Kolkata



Health and Safety awareness for housekeeping staff in Shishya School Bangalore



Blue collar staff awareness session on Child Protection & Safeguarding held at Pearson School Jaipur



HSCP Induction session at Vista School Hyderabad



Bus attendant staff orientation on child safety at Vista Hyderabad



Mental Health and Yoga session held in Kompally school on International Yoga Day

Technology Section–Eye Wash Station

Statistics on accidents show that each year there are estimated one million eye injuries in the workplace. Even though with the proper use of safety glasses, goggles and face shields, the risk of an accident is decreased tremendously but is still present. An eye wash station is thus an essential component of a setup where chemical injury to eyes is possibility. Several OSHA regulations require that an emergency eyewash or shower be provided whenever employees are exposed to corrosive materials. The ANSI (American National Standard Institute) standard provides that this emergency equipment be installed within ten seconds walking distance from the hazard and on the same level as the hazard

The temperature in an eyewash should be between 60 and 100 degrees Fahrenheit and it must provide at least fifteen minutes of a continuous flow of water. Based on the design of the station, it can be classified as:

- Plumbed eyewash stations – which draw tap water from plumbing pipes which are connected to building water supply.
- Tank Style self-contained stations also require the use of tap water but they use a preservative as part of the mixing to prevent infection.
- Tank style self-contained units with sealed cartridges do not require the use of tap water. There is no mixing involved.

Steps involved in usage of Eye Wash station:

- Rush to the Eyewash Station: If a chemical splashes in your eyes, time is of the essence.
- Push the lever to activate the setup.
- Begin to flush your eyes directly in the stream of the flushing fluid.
- Hold your eyes open with your fingers.
- Roll your eyes to be sure that the fluid is flushing all of the areas of your eye.
- Flush for atleast 15 Minutes so that you will comfortably be able to continue flushing for the entire period of time. This is important because you want to fully dilute the chemical and wash it out of your eyes. Any time less than 15 minutes is NOT enough time to accomplish this.
- Take out your contacts while you are flushing. Don't delay the flushing to take out your lenses but make sure that you take them out because they could trap the chemical in your eyes.
- Seek medical help to determine if anything more needs to be done for the preservation of your vision.

Eye wash bottles. Employers can make provision for eyewash bottles in work locations where proper eye wash station can't reasonably be provided (e.g., an outside yard) in the immediate work area, but only until they can reach a unit which can provide facility to flush the eyes for at least 15 minutes. In other words, eyewash bottles cannot be considered a primary means of protection.



Eye wash station signage



Use of Eye wash station



Use of Eye wash bottle

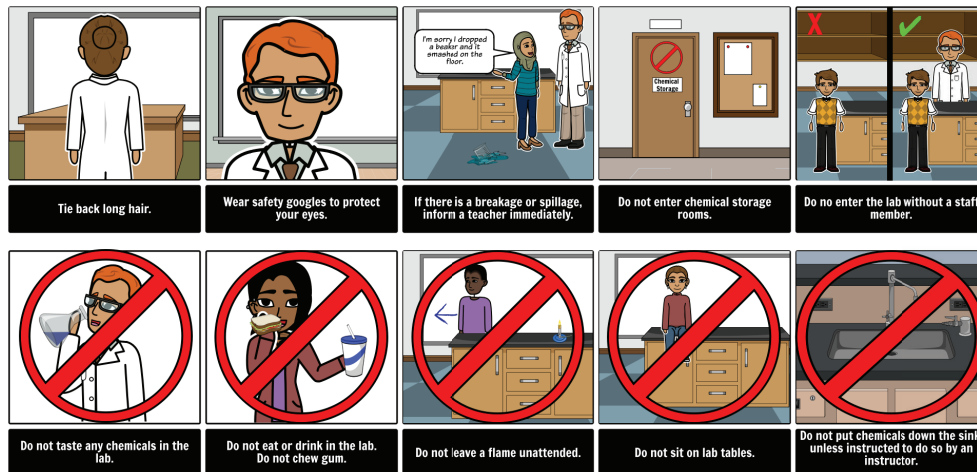
Nurturing Engagement:

Quiz Section

- What information can be found on the Material Safety Data Sheet (MSDS)?
 - The hazardous ingredients of the chemical.
 - The hazardous characteristics of the chemical.
 - Exposure control for the chemical.
 - All of the above.
- Who is required to provide MSDS's upon request?
 - The employer.
 - The Govt of India.
 - The manufacturer or distributor.
 - Both a and c.
- How would you protect yourself from accidentally ingesting chemicals?
 - Not eating or drinking in the laboratory.
 - Do not touch your face with your gloved hand.
 - Remove gloves and wash hands prior to leaving the lab.
 - All of the above.
- Which of the following would protect you from chemicals that can become airborne when used?
 - Use the chemical in a fume hood.
 - Wear a respirator mask when working with the chemical.
 - Ensure there is plenty of ventilation in the laboratory.
 - All of the above.
- What does PPE stands for
 - Personal Preventive Equipment.
 - Personal Protective Equipment.
 - Pressure Prevention Equipment.
 - None of the above.

Answers : 1 (d); 2(c); 3(d); 4(d); 5(b)

Lab Safety: Best Practices



Source: www.storyboardthat.com/storyboards/oliversmith/lab-safety-rules

Way forward-Ensuing quarter Activities

TMPIS - PSI Audit, HACCP Stage 1 Audit	July 2018
IOSH Training for PSI School Team	July 2018
PSI Audit - Tattva School Bangalore	Aug 2018
PSI Audit - Vista School Hyderabad	Sep 2018
PSI Audit - JGS Habsiguda	Sep 2018