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Preamble

One of the objectives of the General Studies for Primary Schools curriculum is to arouse students' interest in and develop their skills to enquire about themes and issues related to science, technology and society. Therefore, we hope General Studies teachers can design more hands-on and minds-on learning activities in teaching so that students can cultivate their interest and curiosity in the natural and the human world and understand the effects of the development of science and technology on the society through hands-on experiences, thus nurturing their enquiry mind and the "Learning to Learn" capabilities.

In order to achieve the expected outcome of learning activities, teachers should set the specific aims of the activities in line with the learning objectives of different classes in the design of learning activities. They should also take good precautions against all the potential hazards so that students can learn in a safe environment.

This Safety Handbook for General Studies for Primary Schools aims to promote the safety awareness of General Studies teachers so that they can take proper safety measures during learning activities. They should also remain alert at all times to avoid accidents and take appropriate actions in the event of an emergency. In recent years, the learning of science and technology has been boosted in a lot of schools, and life-wide learning has also been diversified. In order to better suit the aims of curriculum and the needs of school development, the Education Bureau has revised the Safety Handbook for General Studies for Primary Schools (2005), enriched the information related to investigative activities and incorporated the points to note on study tours outside the HKSAR for reference of teachers.

While every effort has been made to ensure completeness in the revision of this document to facilitate the use by teachers, there are many circumstances which are beyond our expectation in the real situations. Therefore, General Studies teachers should make a sound judgment in accordance with the specific principles recommended in this handbook and take the situations and problems into consideration to ensure that General Studies learning activities can be carried out in a safe environment. Teachers who would like to make any comments or suggestions on the contents of this Handbook may contact us by post or e-mail to the addresses below:

Senior Curriculum Development Officer (Kindergarten & Primary/General Studies)

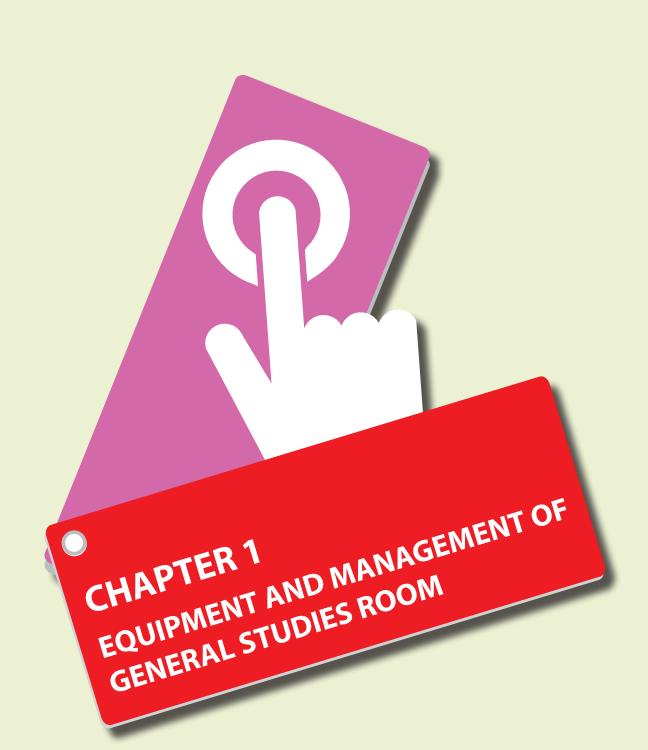
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1.1 Equipment and Facilities in General Studies Room

There is no General Studies Room in most traditional primary schools in Hong Kong. However, with the advances in times, most primary schools which have come into operation in recent years have a General Studies Room for General Studies teaching activities. Schools which have a General Studies Room should use the equipment and facilities in the room as far as possible to design hands-on and minds-on learning activities so as to enhance the learning effectiveness of General Studies. If teachers want to further understand the articles and equipment for General Studies, please refer to the web page of the Education Bureau: "Furniture and Equipment List for New Schools" (http://www.edb.gov.hk/index.aspx?nodeid=247&lango=1). The data on the web page is updated every year as needed. Teachers are welcome to browse the web page and purchase the equipment and articles which are useful to student learning according to the recommendations and needs of the school.

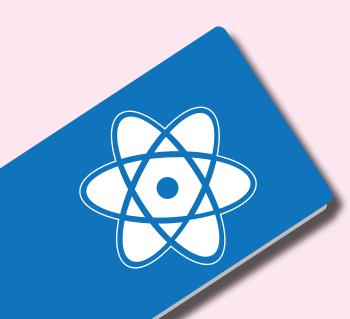
On the other hand, schools which have no General Studies Room should not reduce or abandon the relevant enquiry-based learning activities. In fact, most of the General Studies learning activities can be carried out in a classroom or other suitable places. If necessary, teachers can also refer to the web page above for the purchase of the necessary equipment and articles.

1.2 Management of General Studies Room and Resources

Schools which have a General Studies Room should appoint at least one General Studies teacher to be in charge of the equipment and facilities in the General Studies Room and ensure that the facilities and articles in the room should be properly classified and kept so that teachers can use them if necessary. Generally speaking, most of General Studies Rooms have a "Preparation Room". Teachers should put those more valuable or hazardous equipment and articles in the "Preparation Room" to avoid a loss or posing hazards.

Schools which have no General Studies Room should also keep the General Studies equipment and articles properly so that General Studies teachers can use them if necessary. No matter whether schools have a General Studies Room, a precise list of equipment and articles should be prepared for reference and inspection by teachers. All the equipment and any unused articles should be put in place after use. An accurate loan register should also be kept to avoid any loss arising from poor management thus causing a waste.

The coverage of the General Studies curriculum is extremely wide and the resources of learning areas are numerous. If General Studies teachers can manage the resources effectively, schools can develop an abundant resource bank for General Studies teaching and learning and assist teachers to design a variety of colourful teaching activities.



CHAPTER 2

SAFETY PRECAUTIONS IN INVESTIGATIVE ACTIVITIES OF SCIENCE AND TECHNOLOGY

2.1 Preparations Before Activities

- Before carrying out any investigative activities of science and technology, a risk assessment should be made to check whether the materials to be used and the procedures have potential hazards. A risk control plan should also be made including the use of personal protective equipment.
- The appliances and equipment needed in the activities should be safe and reliable. During the experiment, NO other substitutes should be used arbitrarily (e.g. no ordinary glass should be used as a beaker for heating purpose) to avoid accidents. Moreover, safety spectacles should be worn when chemicals are handled, liquid is heated or the enquiry-based activity may pose hazards to our eyes.
- Before the students start the investigative activity, teachers should have a trial to ensure mastery of skills in each procedure.
- No student is allowed to start any investigative activities unless it is safe to do so. If the use of tools is involved, the students' ability to use the tool should be considered. Teachers should give a demonstration if necessary.
- Instruments or articles should be checked to see whether they are damaged or loosened to ensure that they meet the safety standard.
- The articles which are hazardous or related to experiments should be properly kept. If the school has a General Studies Room, they should be put in the room and to be taken out and put back by teachers. No student is allowed to handle their delivery.
- If lighting of a fire is involved, a preparation or trial of the lighting must NOT be done in the staff room. Moreover, ensure that there is adequate fire-prevention, fire-fighting and first aid equipment in the area. For details, please refer to the EDB circular related to "Fire Service Installation and Equipment" and Chapter 6 of this Handbook – Items in a First Aid Kit.

2.2 Points to Note During Activities

- Clear instructions must be given by teachers. During demonstrations, students sitting close to the teacher's bench should move to other seats when lighting of a fire, heating or pouring of chemicals is needed during the procedures. The bench surface should also be kept clean and tidy. During activities, no inflammable articles such as books, exercises and other sundry items should be placed on the benches.
- The apparatus, reagent bottles and chemicals should be placed back on a plastic tray after use. After students have touched any solution, litmus paper or chemicals, their hands must be washed as soon as possible.

- If the activity involves lighting of a fire, it should be conducted in a place of good ventilation.
- Attention should be paid to the students' responses and the order in the room. The activities should be stopped to avoid any accident if necessary.

2.3 Activities Involving Electricity

The following points should be noted when students use electrical appliances with a "household electricity" outlet.

- Do not use any electrical appliances when the hands, feet or body are wet or when standing on a wet floor.
- Switch off the appliance or the power supply before the plug is inserted/ withdrawn.
- Teachers must comply with the regulations on the safe use of electricity as stipulated by the government. The following points should be noted if electrical appliances are used in teaching:
 - Only plugs which comply with the specifications can be used for the electrical appliances that may be used for General Studies.
 - Under normal circumstances, teachers should keep the use of adaptors to a minimum.
 If adaptors must be used unavoidably, please refer to the leaflet on "Safety Tips for Plugs, Adaptors and Extension Units" issued by the Electrical and Mechanical Services
 Department or browse the web for relevant information:

http://www.emsd.gov.hk/emsd/e_download/pps/pub/Poster_PAEU.pdf

- All the plugs should be checked regularly. Any plugs found with any cracks or signs
 of overheating (e.g. discolouration or charring) must be replaced by a qualified
 electrician immediately.
- Any electrical appliances found damaged or out of order should be repaired by a qualif
 ied electrician.
- The use of extension units should be kept to a minimum. If unavoidable, plugs and sockets used must match with each other to ensure safety.
- The electrical appliances should be switched off after use.

2.4 Activities Involving Water

Fresh Water

- Floor splashed with water during activities must be wiped up immediately.
- Additional utensils should be prepared for containing water.

Hot Water

- NEVER use boiling water for experiments to avoid being scalded by vapour. Usually, hot water at a drinkable temperature can achieve the result.
- No excessive amount of hot water should be used as long as the expected result can be achieved.
- Unless necessary, **NEVER** boil water in a classroom. A thermal flask can be used to contain the water for investigative activities.

2.5 Activities Involving Heat

Heating Instruments

Alcohol Lamp

- The use of alcohol lamp as a heat source can achieve the result of general investigative activities. NEVER use other heaters to take its place.
- Ocloured industrial alcohol should be used as fuel. Each time, the amount of alcohol up to 3/4 of the container is enough.
- Keep the air in the classroom ventilated when using an alcohol lamp. If the classroom is air-conditioned, the air-conditioners must be switched off and windows be opened.
- The lid should be opened before the alcohol lamp is lit. A fire should be lit only after evaporated alcohol has gone. Since there is still some evaporated alcohol left on the lid, it should not lie flat on a bench. It should be placed sideways to let the evaporated alcohol go away.
- The lighting of an alcohol lamp with a lighter is not appropriate. Matches should be used instead.
- Ocover the lamp with the lid to put out the fire and should not blow it out.
- The alcohol lamp must be placed on a metal tray so that the fire can be stopped from spreading further when the alcohol lamp is overturned by accident.
- Always keep the alcohol lamp on a level surface. NEVER place anything underneath the alcohol lamp to make it higher.

Attention should be paid to the changes in the environment or activities nearby. Teachers should NOT go away leaving a lighted alcohol lamp unattended in the classroom or General Studies Room.

Tripod Stand

• Tripod stands with appropriate height should be used for safety and greater efficiency.

Ceramic-centred Wire Gauze

- Ceramic-centred wire gauzes should be used. **NEVER** use asbestos products.
- The ceramic-centred wire gauzes are very hot after heated. **NEVER** touch it with hand directly.

Thermometer

- There are many types of thermometers for different purposes. For example, some are used to measure air or body temperature or for experiments. During learning activities, thermometers that contain no mercury and are 15 cm long are recommended.
- Thermometers must not be placed in a beaker or a test tube no matter whether it is being heated.
- NEVER use a thermometer as a stirrer.
- Thermometers should lie flat on a bench when not in use. **NEVER** let it roll.
- If the thermometer is broken, the experiment should be stopped and the glass fragments be cleared immediately. In case a thermometer contains mercury, sulphur powder should be used to treat the spilled mercury. Then the residue should be swept into a container and sealed for several hours before disposal. Moreover, doors and windows should be open for ventilation for several hours. Arrangements should also be made for all people to leave the scene.

Metal Ball and Ring

• Metal balls and rings are used to show thermal expansion and contraction. They should be cooled off with cold water after use.

Other Points to Note

- 1 or 2 trays should be prepared (plastic, as long as a fire-proof mat can lie flat in it) for holding the articles for experiments.
- A fire-proof mat should be prepared (about 30 cm x 30 cm) for heat insulation.
- A dry towel should be prepared to clean the bench surface. Another wet towel should also be prepared for putting out the flame.

2.6 Activities Involving Light

Torch

• If activities involve light, no torch with quartz light bulbs should be used since students' vision will be impaired if they look at the source of light from quartz bulbs directly. Moreover, students should be reminded not to look at the source of light directly for too long or shine their eyes with a torch directly.

Prism

• The edges of a prism should be checked to see if they are smooth so as to avoid skin injuries.

Points to Note When Watching Solar Eclipse

- NEVER watch the sun directly. Strong sunlight will cause serious damage to eyes.
- Protective measures must be taken such as the use of special filters made for visual observation of the sun. It is preferable to observe by projection, for example, watching the image formed on a piece of paper with a simple pin-hole camera.
- NEVER watch the sun with telescopes because they can focus the solar heat and cause permanent damage to eyes easily.
- Unless there is suitable equipment and the activity is guided by an experienced person, binoculars, astronomical telescopes or other optical equipment should not be used to watch the sun directly. Improper use of such equipment to observe the sun can cause permanent loss of vision instantly.
- O Do not watch the sun through sun-glasses, one or several black-and-white/ colour films stacked together, smoked glasses or photographic filters. Although the sun watched through these articles is darker, the infrared and ultraviolet rays from the sunlight can still damage our eyes through these articles.
- O not watch the sun image reflected from water, ink water, glass surface, metal surface or mirror surface. The reflected sunlight is still very bright.
- O not watch the sun image with sun filters which are damaged, from unknown origin or without comprehensive specifications. Watch the sun only with the filters clearly marked for direct observation of the sun. Do not use them if in doubt. Filters having any minor damage should not be used either.
- Although only part of the sun surface can be seen during partial eclipses, the sunlight is still very bright. To watch the sun directly is not advisable.

Attention should be paid to the duration of solar eclipses. Long exposure to sunlight should be kept to a minimum to avoid affecting the health. (Watching solar eclipses improperly may cause permanent damage to students' eyes. Appendix 1 provides two examples of activities for safely watching solar eclipses as a reference).

2.7 Activities Involving Smelling and Tasting

- During activities involving smelling and tasting, students should be reminded **NOT** to put their nose near any substance. Instead, the substance should be put about 20 cm in front of nose. Then the students should fan with their hand gently so that the moving air will flow into their nose together with the smell.
- If it is necessary to carry out activities involving tasting, issues on safety and hygiene must be considered carefully. During activities involving food, students should be reminded to keep personal hygiene. The touching of cooked food with their hands should be kept to a minimum. If food processing is needed, attention should be paid to food hygiene to avoid food poisoning. For details, please refer to the web page of the Food and Environmental Hygiene Department on the Food Hygiene Code:

http://www.fehd.gov.hk/english/publications/code/code_index.htm

• If a tongue is used to taste different foods, clean household containers and drinking water should be used. Food solution should be transferred with a straw.

2.8 Activities Involving Animals

Points to Note When Keeping Animals

- Keeping birds and mammals in schools should be avoided as far as possible.
- Do not keep any violent animals.
- If it is necessary to use animals for teaching purposes, users have the responsibilities to treat animals with respect. Attention should be paid to the welfare of animals when planning and conducting activities.
- It is not advisable to keep too many animals. Restricting the activities of animals for a long time should be avoided.
- Animals must be fed regularly with suitable and appropriate amount of food.
- Ensure that animals are kept in a suitable and hygienic environment (including cages, boxes or pens, temperature, humidity, ventilation, living density and community structure, etc.)

- Faeces of animals should be handled properly. No students should be assigned to handle manures.
- Habitats of animals should be washed regularly.
- O Such animals should be monitored frequently and attention should be paid to their health conditions. Sick animals should be handled carefully to avoid the spread of bacteria.
- O During school holidays, ensure that animals kept will receive proper care.
- Electrical appliances used for aquariums or fish ponds must comply with safety specifications and should be inspected regularly and maintained properly.
- In accordance with the guidelines and laws of the Government of the Hong Kong Special Administrative Region, arrangements should be made promptly for the disposal of animal carcasses and waste in compliance with requirements on hygiene.
- A set of complete control measures should be worked out to ensure animals have a healthy growth without causing any plague. Schools can invite registered veterinary surgeons to assist with the formulation of relevant plans or contact the Agriculture, Fisheries and Conservation Department for enquiries.

Points to Note When Observing Animals

- When observing animals, keep a proper distance and NEVER stay too close to the animals. Students should be reminded not to touch animals or scare them so as to avoid accidents.
- No students are allowed to touch the faeces of animals.
- If it is necessary to touch animals, disposal gloves should be worn to avoid infection by bacteria or parasites. After activities, all bench surfaces should be cleaned with disinfectant and hands should be washed thoroughly.

2.9 Activities Involving Plants

Points to Note When Growing Plants

Seed

 Some seeds may be poisonous or coated with toxic mould-proof agents. Gloves should be worn when handling seeds.

Agricultural Implement

 Agricultural implement should be kept properly. No students should be allowed to use shears.

Flower Pot

- It is not advisable to put flower pots on the railing so as to avoid accidents caused by falling of flower pots.
- Stagnant water underneath flower pots should be cleared frequently to avoid mosquito breeding.

Potting Mix

- Gloves should be worn when handling potting mix.
- Attention should be paid to the environment when storing potting mix to avoid small animals hiding or bacteria growing in it.

Fertiliser

- Gloves should be worn when handling fertiliser.
- Spilling of smell should be avoided and attention should be paid to environmental hygiene.
- Excessive amount of fertilizers should be avoided.
- Fertiliser must be used according to the instructions on the labels.

Pesticide

- No students should be allowed to handle chemical pesticide.
- Masks and gloves should be worn by users.
- Pesticide must be used according to the instructions on specifications.
- A hazard warning label must be stuck on the container (including sprays) holding the pesticide to indicate that the pesticide is toxic.
- During spraying, attention must be paid to wind directions to avoid affecting the people nearby.
- It is preferable to take a bath and change clothes after spraying pesticide.

Points to Note When Watching Plants

- O No students who are allergic to pollen should be allowed to handle flowers.
- No students should be allowed to touch plants which contain irritants, for example, alocasia, taro, crown-of-thorns, poinsettia, oleander, milk-bush, incense tree, sumac, wax tree, yellow oleander and periwinkle.

- Some plants have sharp thorns or teeth. Attention should be paid to safety when observing them.
- During the observation of sectioning flowers/fruits, the flowers/fruits can be sectioned in advance and contained in a sealed plastic bag in order to save time. In case of hot weather, they can be put in a refrigerator for future use.
- Students should wash their hands after touching plants.
- On not use any parts of plants for a tasting or smelling experiment so as to avoid allergy or poisoning. Therefore, students should be specially reminded not to put flowers near their nose to avoid allergy.

2.10 Activities Involving the Use of Chemicals/Glassware

Apparatus Containing Chemicals

Test Tube

- Test tubes should be checked to see whether they are heat-resistant glassware.
- The upper part of a test tube should be held with a thumb, middle finger and index finger (see diagram below). The mouth of a test tube must not be pointed towards students themselves or others.



- O Do not pour chemicals from a large container into a test tube.
- The substance or liquid contained in the test tube must not exceed 2/3 of the capacity of the test tube. If heating is needed, it must not exceed 1/3.
- Ouring heating, the upper part of the test tube should be held at an angle of about 30 degrees with a test tube holder. Then it should be placed above an alcohol lamp and shaken gently.
- All test tubes should be put on a test tube rack except for heating.
- After use, test tubes must be washed with a test tube brush and put on the test tube rack to air.

Beaker

- Beakers should be checked to see whether they are heat-resistant glassware.
- Heated beakers should be put on a fire mat for identification purpose.
- On not touch heated beakers directly with a hand. Heat resistant gloves should be worn or a dry towel should be used as a protection if necessary.
- O During heating, the liquid contained should not exceed 1/3 of the capacity of the beaker.

Measuring Cylinder

 Measuring cylinders should not be used for heating or containing liquid which is very hot.

Reagent Bottle

 Before handling chemicals, labels on the bottles should be read. Chemicals should be handled only after their names are confirmed.

Glass Rod

- Glass rods are designed for mixing and applying chemical solution only.
- When not in use, glass rods should lie flat on a bench. **NEVER** let it roll.

Handling Chemical Solution

- O Droppers should be used to take the chemical solution from bottles.
- If it is necessary to pour the chemical solution, a glass rod can be used as a guide to avoid spilling of the solution.
- Only the minimum amount of the chemical solution that can achieve the result and aim should be used.
- NEVER pour the surplus chemical solution back into the reagent bottle.

2.11 Activities Involving the Use of Other Tools

Tuning Fork

- Hit a rubber with the sharp end of a tuning fork and then listen with ears.
- NEVER strike any hard objects with a tuning fork.

Sharp Tool

- It is not advisable to use equipment which is too sharp, bulky or can cause accidents easily.
- Students should be reminded not to play with sharp tools like scissors and paper cutters. No students are allowed to walk around while holding pointed and sharp tools. When using pointed tools, they should keep a proper distance with other students.

For the main points on the safe use of sharp tools, please refer to the Guidelines on Safety of Visual Arts in Primary Schools (2000) and Safety in School Workshops (2009) compiled by the Education Bureau of The Government of the Hong Kong Special Administrative Region.

Rubber Band

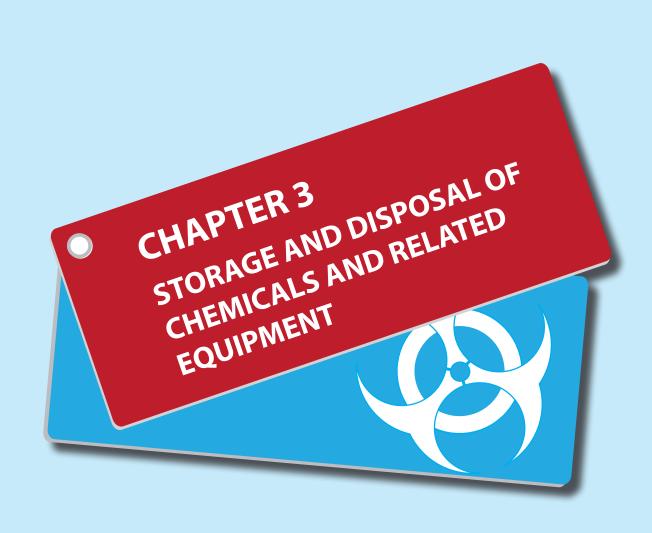
Rubber bands should be used carefully to avoid hitting students themselves or other students. Excess loops should be avoided and attention should be paid to the reaction effect when using rubber bands.

Copper Wire

• If it is necessary to use copper wires during activities, the loose ends of the copper wires should be checked to avoid causing injuries such as cuts. A small amount of clay can be used to cover both ends.

Thermo Gun

- Before use, the thermo gun should be checked to see whether it is in good order. It should be kept clean and dry.
- After the thermo gun is activated, remember not to leave it unattended. Otherwise, it must be switched off.
- Pressing the trigger too hard can make the muzzle blocked. It is recommended to cut off the power supply before activating the gun again. Then the thermo plastic strip should be turned slowly. If the thermo plastic strip is too short and buried in the chamber, another thermo plastic strip can be pre-heated so that it can be bonded to the original plastic strip and pulled out.
- The plastic strip must be used with care because the temperature of melting plastic is very high. If the skin is stuck with the melted plastic by accident, cold water must be used to lower the temperature as soon as possible before seeking medical aid.



3.1 Storage of Instruments and Articles for Experiments

- It is not advisable to stack fragile instruments or articles lest they will be broken.
- Attention must be paid to safety for the storage of electrical appliances. Dry batteries should be removed when not in use to avoid leakage and damage to the electrical appliances, or short circuit causing high temperature and accidents.
- All the instruments and articles should be checked regularly. If found broken or damaged, they should be replaced immediately.

3.2 Storage of Chemicals

- In the purchase of chemicals and instruments, their risks should be assessed first. Overbuying and over-stocking should be avoided.
- Ocommon chemicals especially hazardous chemicals should not be placed on high shelves where there may be a dropping when their containers are taken, thus causing accidents.
- No flammable or volatile liquids should be kept in domestic refrigerators because thermostat controls and door-switch may spark during operation. The ignition of vapour of these liquids will cause explosion.
- Volatile liquids must be stored in a cool place and away from sunlight, heat sources or power supply (including dry batteries).
- All containers of chemicals should bear clear and correct labels and expiry dates to minimise possible accidents which may be caused by the storage of hazardous chemicals.
- Chemicals should be checked regularly. For example, they should be checked to spot any signs of change or expiration every three to six months. Once found expired, the chemicals should be replaced immediately with proper disposal (Please refer to Para. 3.4 for the disposal of chemicals). For the names, storage quantities and labels of the chemicals generally needed for General Studies, please refer to the following table:

Names, storage quantities and labels of the chemicals generally needed for General Studies

Name	Quantity	Label
Alcohol (For industrial use)	Up to 1 litre	Flammable Toxic
Alcohol (For sterilization)	Up to ½ litre	Flammable
Lime water	Up to 2 litres	
lodine solution	1 small bottle	Harmful
Hydrogencarbonate indicator	Up to 1 litre	
Sulphur powder	500 g	Flammable

3.3 After-class Actions

For the disposal of chemicals, please refer to the Para. 3.4.

- If the temperature of an instrument is too high, a pair of suitable heat insulation gloves should be used. Before delivery of the instrument, a fire-proof mat should be placed inside a plastic tray.
- After use, all the equipment and objects should be put in place so as to avoid loss or causing hazards.

3.4 Disposal of Chemicals

- After activities, NEVER pour the residual chemicals back into reagent bottles so as to avoid contamination of chemicals.
- Solid waste from experiments should all be collected and sealed with plastic bags before disposal. No wastes from experiments should be disposed of in the classroom or General Studies Room.
- If there is a sink in the classroom or General Studies Room, hot water and other chemical wastes should first be poured down. Then plenty of water should be used for a gentle wash to ensure no residual in the sink. Otherwise, teachers should go through the same process in a most convenient sink after collecting all the chemical wastes.
- If there is sediment mixed in the liquids, they must be filtered with a strainer before pouring the liquid into the sink so as to avoid clogging the sink.
- If liquids generate irritating smell, first ensure the room is well-ventilated and then find out the nature of the gas for seeking a suitable way to handle it. Moreover, such liquids should not be poured down the sink in the classroom so as to avoid causing discomfort to students.
- At any time, a plastic tray should be used to hold the instrument which contains hot water or other liquids.

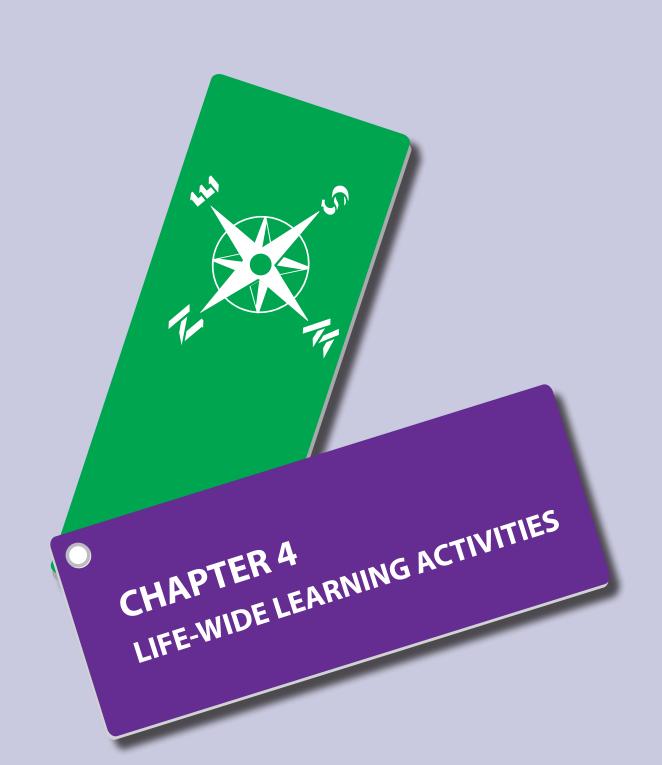
Notes:

For other key points of safety related to experiments, please refer to the Safety Precautions in Integrated Science Experiments (1999), Handbook on Safety in Science Laboratories (2002), Safety in Exploring Science and Safety in School Workshops (2009). The handbooks have been uploaded on the EDB web page on School Safety and Insurance:

http://www.edb.gov.hk/index.aspx?nodeID=242&langno=1

Moreover, please refer to Safety in Exploring Science at

http://resources.edb.gov.hk/~ses/index.html



4.1 Meaning of Life-wide Learning Activities

Life-wide Learning can complement the implementation of the General Studies curriculum by extending student learning beyond the classroom. It helps students apply the knowledge, skills and values in cross key learning areas. Teachers should make good use of community resources provided by government departments, non-government organizations and the opportunities of studying outside the HKSAR so that students can learn in authentic settings to enrich their learning experiences.

4.2 Outdoor Visits and Fieldwork Activities Inside the HKSAR

Prior to organizing activities, the school should have a comprehensive and detailed plan so that participants can thoroughly understand the nature and contents of the activities. Before the activity, teachers must understand the details of each activity, the route and the relevant safety facilities, and make assumptions on any problems that may arise and prepare contingency plans. The safety precautions on outdoor visits and fieldwork activities have been set out in the EDB Guidelines on Outdoor Activities (2008). Below is the information extracted from the Guidelines for reference of teachers.

Notes for Heads of Schools

- Schools should ensure that the responsible teachers/instructors¹ possess the relevant qualifications to conduct the activities. Teachers/Instructors should be encouraged to attend first aid training and refresh their training every three years so that there will be sufficient first aid trained candidates to serve as leaders of outdoor activities.
- To facilitate organization and management, participants of an outdoor activity may be divided into groups. Group leaders, who can be teachers, senior form students or adults assigned by the school, should have relevant experience and knowledge.
- It is the responsibility of the school to ensure that participants are physically fit and possess the necessary skills to participate in the activities. Parental consents of participants should be obtained before the activities. Parents should assess the physical conditions of their children and communicate with schools before an outdoor activity is conducted to determine the suitability of their children to participate in the activity.
- Schools must make sure that all participants including teachers/instructors/group leaders thoroughly understand their roles and responsibilities in the event of an emergency.
- Teachers/instructors should bring along first aid kits (please refer to para. 6.2) and personal communication devices (such as mobile phones, etc.) for casualty handling and communication in the event of an emergency.
- When an accident occurs, schools should handle it immediately and notify the parents of the injured student(s) or family members of the injured participant(s) as soon as possible. Call the Police immediately if necessary. Details of the accident should also be recorded.

¹ An instructor is a person who is qualified as a coach or trainer in a particular activity.

- When organizing outdoor activities, schools should observe the proper procedures and notify the police and relevant government departments and refer to relevant EDB circulars for observance.
- Instruct the responsible teachers/instructors who do not physically participate in the activities to take charge of management and supervision during the course of activities. They should:
 - be responsible for communicating and liaising with related parties in relation to the outdoor activities;
 - possess good knowledge of the details and operations of organizing outdoor activities in school, such as information on the nature, time and venue of the activity, names of the teachers/instructors leading the activity and their contact telephone numbers, etc.
 They should also handle enquiries from outsiders or parents;
 - inform the management or designated person(s) of the school according to the agreed contingency plan and, if necessary, assist the school in contacting parents, collaborators or government departments in the event of an emergency;
 - be on the alert during the outdoor activity, pay attention to news report and weather conditions, and monitor the progress of the activity so that timely feedback of useful information can be given to the school and the teachers/instructors leading the activity; and
 - report to the police in case the teachers/instructors fail to inform the school of the completion of the activity as scheduled.
- The school should make sure that all students, with or without disabilities are given the same chance to participate in outdoor activities if circumstances permit. Moreover, the school should give those students with disabilities the assistance they need. For example, the teachers/instructors should be advised to prepare for the intellectual disability students special identification and S.O.S. cards during outdoor activities.
- Heads of schools should read carefully the EDB Circular on Block Insurance Policy (BIP) to familiarize with the policy specifications and coverage and follow the relevant guidelines and instructions accordingly. Moreover, schools should observe the following:
 - All teachers/instructors or escorts are to be appointed by the school. The person(s) appointed, the content of the activity, the venue and time schedule of the activity must be approved by the school and recorded accordingly.
 - If there is any query concerning the coverage of the BIP or if an accident occurs, the school should contact the insurance company immediately.

Notes for Teachers/Instructors

- At least one member of the activity group should have received first aid training if the activity is conducted in natural environment and is exploratory, challenging, and physically demanding in nature. Teachers/Instructors are encouraged to attend first aid courses offered by the St. John Ambulance Association, the Hong Kong Red Cross or the Auxiliary Medical Service and to refresh their first aid training every three years.
- It is advisable to keep abreast of the weather reports and forecasts.
- Schools are advised to stop participants who are susceptible to effects of air quality (e.g. those with heart or respiratory illnesses) from taking part in the outdoor activities if the Air Pollution Index (API) is within the range of 101 and 200 in the area in which the activity takes place.
- If the API in the area is within the range of 201 and 500, the outdoor activities should be suspended, cancelled or postponed.
- All outdoor activities should be cancelled if a tropical cyclone warning signal is hoisted. If Typhoon Signal No. 1 is hoisted while the activity is taking place, the group should find the nearest shelter immediately. If circumstances permit, teachers/instructors should arrange participants to go home. If a higher signal is hoisted, the group should stay at the nearest shelter until the danger is over.
- When a red/black rainstorm warning is issued, teachers/instructors should stop all outdoor activities immediately and direct all participants to take shelter in a safe place until it is safe for them to return home.
- When cold or very hot weather warning is issued, it is expected that cold or very hot conditions will persist. Teachers/Instructors should assess the situation and decide whether to postpone or cancel the activity. In cold weather, participants should be advised to put on warm clothing to prevent hypothermia. In very hot weather, participants should be asked to wear porous clothes and trousers and to avoid excessive sun exposure so as to minimize the risk of skin cancer. If the sun is strong, they should also be reminded to put on wide-brimmed hats, wear sunglasses with UV protection and sunscreen² of SPF 15 or above to the exposed body parts.
- Schools should request parents to check the body temperature of their children on the day of the activity and record the details in the form prepared by schools. Teachers/ Instructors should then determine whether students are physically fit to participate in the activities. In the case of camping or the outdoor activity lasting for several days, teachers should check the students' body temperature each day before the programme begins.

² For the information on ultra-violet ray and protection measures, please browse the web page of the Hong Kong Observatory:

http://www.weather.gov.hk/wxinfo/uvindex/english/euvindex.htm

- Teachers/instructors should observe the performance and behaviour of the participants, and make sure that they do not engage in activities beyond their physical and mental capabilities. They should also remind the participants to report any sickness so that appropriate arrangements can be made.
- It is necessary to help the participants to develop a sense of responsibility and to make them understand their role in ensuring their own safety and that of their teammates.
- Smoking or tampering inflammable materials such as matches or cigarette lighters, etc. is strictly forbidden while participating in outdoor activities.
- Teachers/Instructors should ensure that participants taking part in outdoor activities are properly dressed. They should, for example, wear suitable clothing and footwear, tie back long hair, cut fingernails short and secure spectacles.
- Teachers/Instructors should advise all participants to bring along their identity document, such as adult or juvenile identity cards for those aged 15 or above.
- Teachers/Instructors should remind participants of outdoor activities to take proper measures against mosquito or insect bites to prevent diseases such as dengue fever. They should:
 - wear light-colour long-sleeved clothes and trousers;
 - put on mosquito repellent and
 - avoid staying long in shades, bushes, hidden sites or areas beyond management

For more information related to dengue fever, please refer to the web page of the Department of Health

http://www.chp.gov.hk/en/content/9/24/19.html

- Teachers/instructors should be aware of the potential hazards of the outdoor activities and the surrounding environment, and take appropriate precautions to ensure safety. Participants should be encouraged to report as soon as possible anything unusual or any problem they detect.
- The following steps should be taken in case of accidents:
 - Apply first aid as and when necessary. Do not take action hastily if there is any doubt;
 - Do **NOT** move the injured unless it is absolutely necessary. Send the injured for medical treatment immediately if circumstances permit. Otherwise, arrange a person accompany the help-seeker to seek assistance;

- Prepare a message for help with the following information:
 - i. location of the injured (record the name of place, the map grid or the distance marker(s) set up by the Agriculture, Fisheries and Conservation Department at every 500 metres distance along the hiking trails);
 - ii. time of the accident;
 - iii. condition of the injured;
 - iv. brief particulars of the injured;
 - v. brief particulars of the reporter; and
 - vi. number of other group members and their situation.
- Person handling bleeding wounds should wear plastic gloves in order to avoid direct contact with blood.

4.3 Study Tours Outside the HKSAR (The following are adapted from the Guidelines on Study Tours Outside the HKSAR (2008))

Study tours outside the HKSAR refer to activities designed and organized by schools in which students, under the care of the escorts appointed by schools, are arranged to make visits, exchange programmes, studies or services conducted outside the Hong Kong Special Administrative Region.

Planning and Preparations

- All escorts in the study tours should have experience in leading students to take part in outdoor activities or overseas visits, with at least one of them being a teacher of the school.
- It is advisable that at least one of the escorts or participants has received training in first aid.
- Each study tour should be led by at least two escorts, with each escort taking care of no more than 10 students.
- The capability of the participants to take part meaningfully in the activity must be taken into consideration when deciding the destination, itinerary and expected duration of the tour.
- Other factors including climate, accessibility, language, condition of hygiene, accommodation and food of the place of visit should also be taken into account.
- Places with potential hazards, such as political unrest, lax security, epidemic disease outbreaks, threats of earthquake or frequent occurrence of typhoon and flood, should be avoided.

- Schools should draw up contingency plans in advance (e.g. procedures for handling delay or cancellation of the tour in response to changes in weather conditions, political environment or transportation, and to handle withdrawals or accidents in the course of the tour, etc.) and inform the students and their parents of the plans. Schools should also set up an emergency contact system with the parents and the collaborators/host organizations to facilitate communication with these parties.
- Information relevant to the itinerary, such as the addresses and telephone numbers of the lodging places, location of the local police stations, hospitals, clinics, or first aid units as well as the emergency call numbers en route, should be collected. Such information should be given to the parents and the responsible person in the school before the trip for emergency needs.
- Schools should organize a briefing session before the trip to inform the students, parents and the accompanying members of the details of the tour, duties of every party and rules and regulations to be followed by the students and parents as required by the schools. Students should be reminded of the need to follow the escorts' instructions and observe all the safety regulations throughout the trip.
- Pre-tour training should be provided as far as possible.
- It is preferable to arrange two students or more to live in a room when allocating accommodation. This will facilitate provision of support to fellow members. Once the arrangement for accommodation is finalized, no students should be allowed to make any change without a proper reason so as to avoid causing confusion.
- The school should study and comply with, as appropriate, travellers' health advice as detailed in the website of the Department of Health (http://www.dh.gov.hk/eindex.html) regarding various health risks and advice as well as vaccinations.
- The school should obtain a letter of consent and a health certificate from the parents of each student and also take note of the health condition of the students. If a participant is not feeling well before the trip, the school or the escort should persuade the participant to seriously consider his/her health condition and consult a doctor. The participant should NOT insist on joining the tour. If a participant shows symptoms of having contracted an infectious disease, it will be in the interest of the safety of the other group members that he/she should refrain from joining the tour.
- The school should examine the travel documents of the participants as soon as possible and, if necessary, check their certificates of immunization. If their travel documents are not valid or the vaccination they have taken does not meet the requirements laid down by the place of visit, the school should remind the participants to get the necessary documents or health certificates as soon as possible.
- Each participant of the study tour should prepare suitable travel and medical insurance.

Points to Note during the Study Tour

- The escort should pay attention to the weather forecasts and news broadcasts of the place of visit. If there is any change in weather or other conditions, a contingency plan should be worked out as soon as possible.
- The escort should have full knowledge of the health condition of each participant in order to determine whether specific participant(s) should not be allowed to take part in the activities of the day. He/she should take timely and appropriate action having regard to the circumstances of individual cases. The escort should also arrange for any sick member to see the doctor immediately and to take effective preventive measures according to the doctor's advice. If necessary, the escort should inform the parents and the school of the students' health conditions as soon as possible.
- The escort should bring along with him/her the necessary safety equipment for the tour, for example, a first aid box, communication equipment (mobile phones), torches, etc.
- O Students should be divided into small teams. Each team is put under the care of an escort.
- The overriding concern is the safety of the participants of the tour. Activities should preferably be conducted in one large group or in small teams. Lone ventures should be avoided as far as possible. Escorts should advise the participants to bring along with them copies of their travel documents for identification purpose where necessary. Moreover, if the participants discover anything suspicious/unusual during the visit, they should report it to their escort as soon as possible.
- The participants should be fully briefed on the itinerary or details of the programme before the activities begin each day. After a day's activities, a meeting or a sharing session should be conducted to review the performance of the participants, the arrangement and the relevant safety measures, and to make preparations for the activities of the following day.
- When travelling by any means of transport (including aeroplane, vessel, train or motor vehicle), participants should stay alert, obey the relevant safety regulations and acquaint themselves with emergency escape routes or exits.
- The escort should monitor the speed of the vehicle in which they are travelling to ensure it is within safety limits. He/she should remind the driver or the reception personnel of the importance of road safety when necessary. Moreover, the escort should be aware that the driver gets sufficient rest or works according to duty roster to avoid prolonged driving without breaks. It is not advisable to press ahead with the trip when the weather is bad or when the schedule is tight.
- After checking in a local hotel, the students should first find out where the "fire escape" is. They should also acquaint themselves with the exit direction, the escape route and the place of assembly in case of emergency.

- The escort should carry with him/her information such as the full list of the group members and their respective hotel room number to facilitate assembly and checking of participants. The escort should also inform the participants of his/her room and telephone numbers to facilitate communication.
- The escort should always remind the participants to take proper care of their travel documents and other personal belongings.
- The participants should put the room key, a torch and other important items in a convenient position before going to sleep, so that they can get them at the first instance even in darkness.
- The participants should pay attention to food hygiene and should not eat uncooked food or drink untreated water. They should not patronize unhygienic stall or restaurant.
- The participants should wash their own clothing regularly and maintain good personal hygiene. They should avoid staying long in places which are overcrowded or have a high level of air pollution. If necessary, they should wear masks to reduce the risk of being infected by bacteria and viruses.
- Each participant should carry a watch and take note of the time of assembly and return for all activities. They should arrive at the fixed assembly point punctually as instructed.
- The participants should bring along with them long-sleeved shirts and long trousers, mosquito repellent and sun block, etc. to help prevent mosquito or insect bite and sunburn.
- If a student needs to leave the tour temporarily, he/she must seek prior approval from the school through his/her parents. While he/she is away from the tour, the student must be accompanied by an appointed adult. The student must also inform the escort and other members of the tour where he/she wants to go, when he/she will return and how to contact him/her.
- The participants must make sure they have sufficient rest so as to maintain physical fitness to engage in all the activities throughout the journey.
- The escort must report regularly to the responsible person of the school in Hong Kong regarding the well being of the tour members and the progress of the activities in accordance with the agreed reporting mechanism. This is to keep the school informed of the latest movement of the tour, which will facilitate handling of enquiries from the parents.
- Participants' absolute safety should be accorded the highest priority and in no way be compromised. If there are happenings of certain incidents that warrant the involvement of local official authorities such as police, the escorts should act accordingly without any delay.

Overall Considerations for Study Tour Outside HKSAR

- In devising safety measures, the school should refer to the above guidelines and make necessary adjustments, having regard to the nature of the tour, the ability/condition of the participants and the environment of the place of visit. This is to strike a balance between the objectives of the activity and the principle of safety.
- The school should read carefully the EDB circular on memorandum on details and policy specifications of the Block Insurance Policy and follow the relevant guidelines and instructions strictly. Moreover, the school is requested to observe the following:
 - All escorts are to be appointed by the school. The person(s) appointed, as well as the programme, place and schedule of the visit must be approved by the school and recorded accordingly.
 - If there is any query concerning the coverage of the Policy or if an accident occurs, the school should contact the insurance company at once.

4.4 Points to Note during Investigative Activities, Data Collection and Interview

Teachers should consider whether the data to be collected can be easily assessed by average students. Adequate time should be provided to students for data collection activities. If students need to conduct outdoor activities, for example, data collection from relevant organizations, libraries or government departments, teachers should consider the students' safety to and from the destination. Students must be reminded to obtain parents' consent in advance. It is preferable to have teachers, parents or other adults to accompany the students during the activities so as to avoid accidents.

- Teachers must consider the surrounding environment at the location of the investigation or visit. If it is too remote or quiet, the traffic is too busy or the security is not satisfactory, students should not conduct the activities themselves. To ensure safety, it is preferable to have teachers or parents to accompany the students.
- Students should thoroughly understand the aims of the activity.
- O During the activity, avoid causing inconvenience or affecting others as far as possible.
- If the interviewees are strangers, students must be accompanied by teachers or parents.
- Before conducting interviews, the students should be reminded to obtain consents from interviewees first. Attention should be paid to the interviewees' emotional changes and the interview should not be conducted against their free will.

4.5 Other Related Guidelines

The points to note on outdoor visits, field study, study tours outside the HKSAR, investigation, data collection and interviews in this Chapter are not exhaustive. When conducting such activities, schools should refer to the guidelines, circulars and leaflets issued by the Education Bureau and other related government departments. Please refer to Appendix 3 for details.



5.1 Points to Note When Handling Accidents

- Regulations 55(2) of the Education Regulations (CAP 279A) states that at least 2 teachers in every school shall be trained in administering first aid. Therefore, teachers should be encouraged to undergo first aid training courses offered by the St. John Ambulance, Hong Kong Red Cross or Auxiliary Medical Service and receive refresher training every three years to ensure that injured students can receive proper care before the arrival of ambulancemen. For details, please refer to the related notices. Schools should also prepare a first aid handbook for reference of teachers.
- When an accident occurs, stay calm and administer proper first aid.
- In the event of serious injury, or whenever in doubt, medical aid should be sought without delay. In order to enable the injured to receive treatment as soon as possible, schools should call 999 for the ambulance.

5.2 First Aid for Common Accidents

Handling Minor Burns and Scalds

- Reassure the injured.
- O Pour plentiful amount of cold water over the injured area to alleviate the pain of the injured.
- O Do not remove any clothing stuck to the injured area.
- O Do not apply oil, cream or any chemicals on the injured area.
- Ocover the injured area with a dry, clean sterile gauze or soft cloth and then secure with bandage.
- As far as possible, immobilize the injured area so as to minimize pain.
- Seek medical aid as soon as possible.

Handling Minor Cuts and Bleeding

- Reassure the injured.
- NEVER touch the wound or blood of the injured with a bare hand. Disposable plastic gloves should be worn.
- Wash the wound with fresh water or diluted antiseptic if necessary
- Cleanse the area around the wound gently with cotton swabs. Use one sterile swab each time. Take care not to wipe off any blood clots. Dry the wound gently.

- Apply dressing to the wound after bleeding has stopped.
- In serious cases, apart from calling the ambulance immediately, the patient should lie down with the injured part raised and supported. Apply direct pressure to the wound over a gauze pad. If bleeding continues and the gauzes are soaked with blood, apply another gauze pad. Do not remove the original gauzes which are already soaked.
- If bleeding cannot stop, apply a pad over the wound and then bandage it firmly to stop bleeding. Remember not to bandage it too firmly so as to avoid obstructing the blood circulation. This procedure should be carried out by teachers who have undergone first aid training and the injured should receive medical aid as soon as possible.
- Blood-contaminated materials should be handled carefully and the following precautionary measures should be taken:
 - Wear disposal plastic gloves. NEVER touch blood-contaminated materials with a bare hand.
 - Use household bleach (diluted with water in the proportion of 1:49) to clean up the contaminated areas.
 - Blood-soiled gloves, dressings, cotton wools and cloths, etc. should be placed in double plastic bags and then sealed for disposal.
 - For details, please refer to the Guidelines on the Prevention of Transmission of Bloodborne Diseases in Schools (2001) compiled by the Department of Health, Hong Kong and the former Education Department.

Handling Eye Injuries

For the procedures of handling eye injuries, please refer to the Handbook on Safety for Science Laboratories (2002) compiled by the Education Bureau. The main points are as follows:

- All eye injuries should be regarded as serious cases and the injured should be taken to hospital for medical aid without delay.
- If any chemical has splashed into an eye, flush the eye with running cold water or use eye wash unit immediately for at least 10 minutes (open the eye with a hand). Ensure that water drains away from his/her face and not into the other eye. **NEVER** attempt to neutralize the chemical in the injured eye by acid or alkali. Advise the injured not to rub his/her eye.
- NEVER attempt to remove foreign objects such as glass pieces from the eye. Keep the
 patient calm and call for medical aid immediately.
- O Cover the eye with a sterile eye pad.

5.3 Record of Accidents

Schools should make a detailed record of all accidents which occur during any learning activities. Each record should include:

- O Date, time and place of accident, class and particulars of teacher
- Nature of accident
- Particulars of the injured
- Information about the learning activities
- Cause of accident (if known)
- Extent of injuries and treatment sought

For details, please refer to Appendix 2.



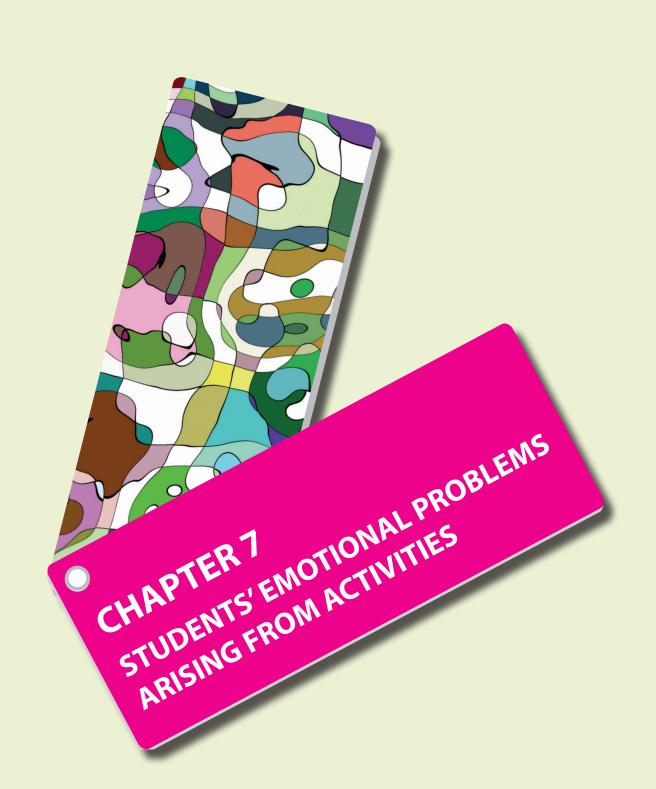
6.1 Points to Note When Installing a First Aid Kit

- First aid kits should be installed in prominent and easily accessible positions.
- When there is no first aid kit at the location of the outdoor activity, a notice must be posted in a prominent position specifying the location of the nearest first aid kit.
- During outdoor activities such as fieldwork, teachers should bring along a first aid kit for emergency use.
- To prevent the transmission of blood-borne diseases, schools should keep disposal plastic gloves, sterile cottons, sterile dressing/gauze and antiseptics in a first aid kit.
- Items in first aid kit should be regularly checked to ensure that there is sufficient quantity kept in good conditions.
- All teachers should be familiar with the items in a first aid kit and their use.

6.2 List of Suggested Items in a First Aid Kit*

- Antiseptics
- Sterile cotton wools
- Disposal plastic gloves
- Sterile dressings/gauzes
- Adhesive plasters
- Bandages of different sizes
- Forceps
- Safety pins
- Scissors
- Sterile adhesive dressings of different sizes
- Sterile eye pads
- Triangular bandages
- Alcohol
- Cold packs
- Cotton sticks
- Elastic crepe bandages
- Thermometers
- Emergency contact telephone number (e.g. contact telephone number of the ambulance depot nearby)

^{*} All the first aid items should bear the dates of purchase and expiry and be refilled or replaced from time to time.



7 Points to Note When Handling Students' Emotional Problems

General Studies teachers can design different types of learning activities based on the requirements of the curriculum. No matter whether the students carry out the learning activities in schools, outdoors or even outside the HKSAR, teachers should remain sensitive to students' needs and feelings so as to avoid them having emotional problem during the activities, thus affecting the safety of themselves or others.

- When designing learning activities, teachers should avoid activities which may cause distress or embarrassment to students.
- During the activity, more attention should be paid to students' emotional reactions, especially more care should be given to students who have special educational needs. If any student is found distressed or embarrassed, the teachers should handle carefully and the student should not be forced to continue the activity. If a student causes disturbance to others or shows emotional problems during the activity, the teachers should let the student calm down before handling his/her problem. If necessary, teachers may seek professional support, for example, from school social workers or guidance and discipline team for proper counseling and follow-up action.
- Teachers should establish a good classroom practice to enhance learning outcomes and minimize the occurrence of accidents.



Appendix 1	How to	Watch	Solar	Eclipses
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Appendix 2 Sample Form for Recording Accidents in General Studies Activities

Appendix 3 Related Guidelines, Circulars and Websites

Appendix 1 How to Watch Solar Eclipses

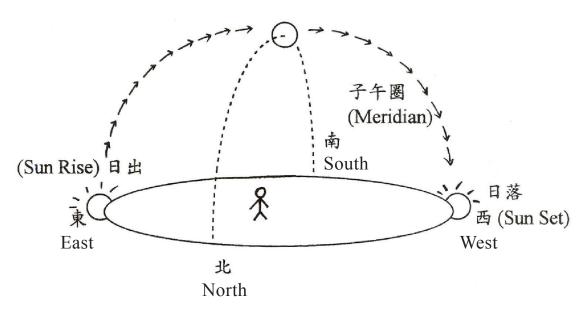
To ensure safety, solar eclipses should be observed in the following indirect ways:

1. The Pinhole Projection Method

(This method is more suitable for solar eclipses which occur in the middle of the sky)

地球自轉一周的時間 (Rotational Period of the Earth)

太陽上中天 (Upper Culmination)



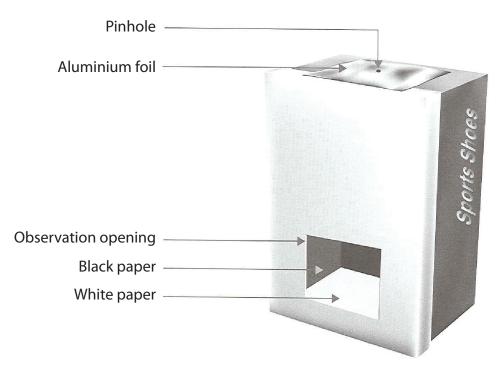
A. Production

Tools:

shoe box, black cardboard paper, white paper, cutter, needle, adhesive tape, aluminium foil, compass, wrist watch

Method:

- Put the shoe box upright. Stick black paper on all four sides in the box. The bottom is stuck with white paper as a screen.
- At the centre of the top of the box which is upright, open a square hole which is about 2 cm x 2 cm.
- Stick an aluminium foil on the square hole, then poke a small hole at the centre of the aluminium foil carefully with a needle.
- Open a rectangular hole on one side of the box as an opening for observing the sun image. The opening does not need to be big, as long as the screen at the bottom can be seen clearly.



B. Directions:

- Carry the projection box to an open space and put it on a level ground or table. First check the directions with a compass. Then move the projection box so that the opening faces the north. The end with the pinhole is on the top while the one with the white paper is at the bottom.
- When the sun is near the top of the sky, the sunlight can project a spot onto the white paper below through the pinhole.
- In the event of a solar eclipse and the position of the sun is not near the top of the sky, the opening of the projection box must be adjusted until the spot can be projected onto the white paper below.
- Please note that the size of the spot is bigger than the pinhole. If the distance between the pinhole and the white paper is 25 cm, the diameter of the spot is about 2.5 mm. (If the distance between the pinhole and the white paper is longer, the spot has a bigger diameter but is dimmer.)
- Note how the small spot changes in the event of a solar eclipse. (Since the sunlight shines on the white paper at an angle, the sun image will be slightly longer.)

C. Drawing the phases of a solar eclipse and the change of positions of the sun

- Put the box on a table or the ground and draw the shape of the sun on the white paper with a pencil.
- During the process of the solar eclipse (including 15 minutes before and after the eclipse), students can record the position and shape of the sun image projected on the white paper once at an interval (e.g. 30 minutes) so that they know how the position of the sun changes in the sky and how the phases of the solar eclipse changes.

2. Tree Leaves Projection

- The small gaps between tree leaves act like pinholes. When the sunlight falls through them, the sun image will be projected on the ground. By a tree, we can observe the phase of a solar eclipse by watching the sun image projected on the ground.
- We can also record the process of a solar eclipse with a video camera but **NEVER** watch the sun directly through the tree leaves.

Appendix 2 Sample Form for Recording Accidents in General Studies Learning Activities

1. Date, time ar	nd place of accident, class and particulars of teach	er			
Date :	Time : Name of Teacher :				
Class :					
Place :					
2. Nature of accaption activities)	cident (e.g. burns, scalds, cuts or accidents arising	from outdoor			
	the injured (Please put a √ in the appropriate box				
Name :	Teacher□ Student□ Others□	(Please specify			
Name :	Teacher□ Student□ Others□	(Please specify			
4. Information	about the learning activities				
Unit :	Topic :				
Aim of the Activi	ty :				
5. Cause of acci	dent (if known)				
 6. Extent of inju	uries and treatment sought				
Date :		iignature)			
	Name :				

Appendix 3 Related Guidelines, Circulars and Websites

(I) Guidelines and Handbooks

- 1. Handbook on Safety in Science Laboratories (2002)
- 2. Guidelines on Safety of Visual Arts for Primary Schools (2000)
- 3. Codes on the Safety in School Workshops (2009)
- 4. Outdoor Activities Guidelines (2008)
- 5. Guidelines on Study Tours Outside the HKSAR (2008)
- 6. Safety Hints for Hiking in Country Parks, compiled by the Agriculture, Fisheries and Conservation Department

(II) Circulars and Circular Memoranda

- 1. Safety Precautions for School Outings in Rural Areas
- 2. Tropical Cyclones and Heavy Persistent Rain Arrangements for Kindergartens and Day Schools
- 3. Air Pollution Index
- 4. Guidance Notes for the Arrangement of Schools Visits to Historic Monuments and Archaeological Sites In Hong Kong
- 5. Guidelines for Ensuring Safety of Students on School Transport Vehicles
- 6. Outdoor Educational camp
- 7. Block Insurance Policy for Public Liability, Employees' Compensation and Group Personal Accident
- 8. Insurance in Schools

The information above (except item no. 6 in Guidelines and Handbooks) can be downloaded from the website of the Education Bureau:

http://www.edb.gov.hk/index.aspx?nodeID=2&langno=1

(III) Websites

- 1. Education Bureau: Web page of General Studies for Primary Schools http://www.edb.gov.hk/index.aspx?nodelD=2409&langno=1
- Education Bureau: Furniture and Equipment List for New Schools http://www.edb.gov.hk/index.aspx?nodeID=247&langno=1
- 3. Education Bureau: Life-wide Learning Action Kit http://cd1.edb.hkedcity.net/cd/lwl/action_kit/web%201/frontpage.htm
- 4. Education Bureau : Safety in Exploring Science http://resources.edb.gov.hk/~ses/index.html
- Outdoor Learning Activities of Leisure and Cultural Services Department -Guided Visits to Leisure and Cultural Services Department's Facilities http://www.lcsd.gov.hk/green/schoolvisit/en/index.php
- 6. Hong Kong Observatory http://www.hko.gov.hk/contente.htm
- 7. Agriculture, Fisheries and Conservation Department http://www.afcd.gov.hk/eindex.html
- 8. Department of Health http://www.dh.gov.hk/eindex.html
- 9. Hong Kong Police Force http://www.police.gov.hk/ppp_en/index.html

