

FIRST AID AND PERSONAL PROTECTION



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Advisory, Editorial and Creative Inputs:

- **Ms. Nidhi Chhibber, IAS, Chairperson, Central Board of Secondary Education.**
- **Dr. Biswajit Saha, Director, Department of Skill Education, Central Board of Secondary Education.**
- **Mr. Ravinder Pal Singh, Joint Secretary, Department of Skill Education, Central Board of Secondary Education.**

Curriculum Designer, Content Developer, Reviewer and Value Adder:

- **Dr. Swati Gupta, Deputy Secretary, Department of Skill Education, Central Board of Secondary Education.**

Ideation, Co-ordination, Curator and Value Adder:

- **Dr. Jyoti Gupta, Director & Principal, DPS Sahibabad & K. R Mangalam World School, G.K-II.**

Content Writer:

- **Ms. Gurmeet Kaur, PGT (Beauty & Wellness), Sarvodaya Kanya Vidhyalaya, New Friends Colony.**

Content Vetting:

- **Ms. Monica Bahl, CEO, Beauty & Wellness Sector Skill Council, Delhi.**
- **Ms. Sohini Guha, General Manager - Beauty & Wellness Sector Skill Council, Delhi.**

Story & Dialogue:

- **Ms. Ritu Sachdeva, Senior School Coordinator, K.R. Mangalam World School, G.K-II.**
- **Ms. Shraboni Ghose, HOD (English), K.R. Mangalam World School, G.K-II.**

- **Ms. Alka Sharma, HOD (Hindi), K.R. Mangalam World School, G.K-II.**
- **Ms. Pratima Jha, HOD (English), Delhi Public School, Sahibabad.**

IT Support:

- **Ms. Priyanka Arora, H.O.D, K.R. Mangalam World School, G.K-II.**

Art Department:

- **Ms. Gurpreet Kaur Rana, K.R. Mangalam World School, G.K-II.**
- **Ms. Asma Malik, K.R. Mangalam World School, G.K-II.**
- **Ms. Lubna Iram, K.R. Mangalam World School, G.K-II.**

Ideation, Training, Reviewer, Curation and Value addition:

- **Dr. Sandeep Sethi, Consultant, MSMS- II Museum Trust (City Palace, Jaipur).**

Industry Review by:

- **Ms. Richa Agarwal, Founder and Director, Cleopatra Chain of Beauty and Wellness Spa.**
- **Ms. Leena Khandekar, Founder and Director, Lee's International Beauty and Spa Institute.**

Peer Review by:

- **Dr. Neha Sharma, Principal, G.D Goenka Public School, Ghaziabad.**
- **Ms. Ritu Sharma, Principal, DPS, Kamptee Road, Nagpur.**
- **Ms. Sharmila Raheja, Principal, Uttam School for girls, Ghaziabad.**
- **Ms. Kratika Gupta, School Counsellor, G.D Goenka Public School, Ghaziabad.**
- **Ms. Kalyani Guha, Academic Coordinator, DPS, Kamptee Road, Nagpur.**
- **Ms. Sana Siddiqui, HOD, English Department, DPS, Kamptee Road, Nagpur.**
- **Ms. Navdeep Kaur, Uttam School for girls, Ghaziabad.**

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PREFACE

Safety first is safety always.

First aid is vital for saving lives. A person who experiences injury needs to be kept stable, before medical services arrive. This may include moving the individual away from any harm, applying first aid techniques, keeping them warm and dry and applying pressure to wounds, to stop any bleeding. By using basic first-aid skills, a minor mishap can be stopped from getting worse. In cases of serious medical emergency, a life may also be saved. First-aid is advised only when a qualified doctor is not immediately available and basic medical care can be provided to someone experiencing a sudden injury or illness. In some cases, first-aid consists of the initial support provided to someone in the middle of a medical emergency. This support might help person to keep going, until professional help arrives. In other cases, first-aid consists of the care provided to someone with minor injury for example minor burn, cut etc. In emergency situations one needs to check the scene for danger, call for medical help and provide care.



LEARNING OUTCOMES

- ❖ Define the three Ps in first aid.
- ❖ Recall the ABCDE in first aid.
- ❖ Recall first aid box and its colour.
- ❖ Assemble a first aid box.
- ❖ Demonstrate Rescue breathing on a dummy.
- ❖ Recognize the benefits of CPR and its ratio for child and adult, in first aid.
- ❖ To list different types of injuries.
- ❖ Outline the appropriate first aid measures for several types of injuries.

CHARACTERS

FIRST AID AND PERSONAL PROTECTION



Atul: 12 year old boy,
Ms. Shaguns' son



Mr. Patil: A middle aged
man, Atul's neighbour



Ravi: A 12-year-old boy, Mr.
Patil's son



Ms. Shagun: Atul's
mother



Ms. Gurmeet: A 30-year-old
Beauty and Wellness teacher



Raashi: Classmate of
Atul



Aryan: Classmate of Atul

INTRODUCTION

First aid is the first assistance given to any person suffering from either a minor or serious, illness or injury. Learning of first aid is an absolute necessity and training of first aid should be imparted to the students. Friedrich Esmarch, the founder of Modern First Aid emphasises on the importance of providing first aid training to render to the injured and for ailments, which most commonly occur at home, school, play-grounds, streets and public places.

However, it should not be mistaken for a complete treatment and no one should take over the duty of the doctor on himself or herself

One day Atul's curiosity could not stop him from questioning his mother about the first aid kit that was kept on the shelf. "Mummy, why is it necessary to give first aid?" Shagun, Atul's mother, comes walking out of the kitchen and says "Son, it aims at the three Ps i.e. Preserves life, Prevents the situation from worsening and Promotes recovery." She also tells him that in first aid ABCDE stands for (A)Air way (B) Breathing (C) Circulation (D) Disability and (E) Exposure.



Atul quickly lifts up the encyclopedia kept in the shelf and reads loudly about the first aid box. “Johnson & Johnson created the very first FIRST AID KIT in 1888. A first aid box / Kit is a collection of supplies and equipment that is used to give medical treatment. The International Organization for Standardization (ISO) sets a standard for first aid kit of being green, with a white cross to be easily recognizable as a first aid symbol. “This information is absolutely correct Atul”, said Ms. Shagun.



“But mummy, do you think we have all the equipment in our first aid box?”. “Of course Atul, I have ensured to keep all the essentials like a first aid manual with emergency medical services (EMS) telephone numbers (1092,102,108), different sized sterile gauze pads, adhesive tape, band-aids in several sizes, antiseptic wipes, antibiotic ointment, antiseptic solution (like hydrogen peroxide), gloves/ eye protection, CPR pocket mask and a 4x4 gauze pad.”

Atul finds the conversation quite interesting and he further shares with his mother about Cardiopulmonary Resuscitation (CPR) or Rescue Breathing which his science teacher had taught in the class the previous day. “You know mummy, ma’am says it is a critical life skill and it can be used in emergencies such as one getting dragged out of a burning building or being pulled away from an electric wire, experiencing a heart attack or faces drowning. But, how can we save a person’s life through CPR?”. Ms. Shagun tells him, “Son, in such an emergency, we need to first check whether the victim is breathing or not.



Then look, feel over the chest and listen with an ear to victim's mouth. If he/she is not breathing resuscitation needs to be started immediately. In rescue breathing, you breathe out your own breath into both nose and mouth for the person and this air has enough oxygen in it to save a life.”



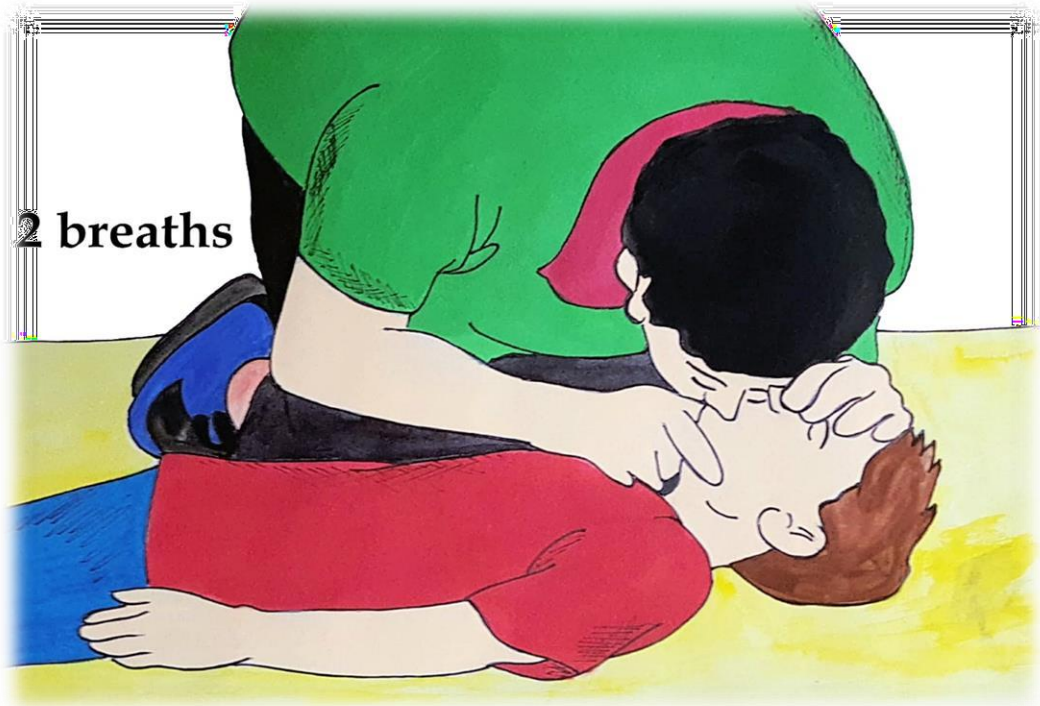
“Atul, you should also know about CAB. It refers to the three basic parts of CPR- ‘C’ stands for compressions it can help the flow of blood to the heart, brain and other organs, ‘A’ is for the airway and ‘B’ is for breathing”. Life is unpredictable and to handle situations where CPR would be required all of us should be aware about it's four major parts.

“Mummy please elaborate on the four parts”. Yes Atul, first, one should call the doctor or ask someone else to do. Second, lay the person on the back and loosen the clothes to check his/her breathing.

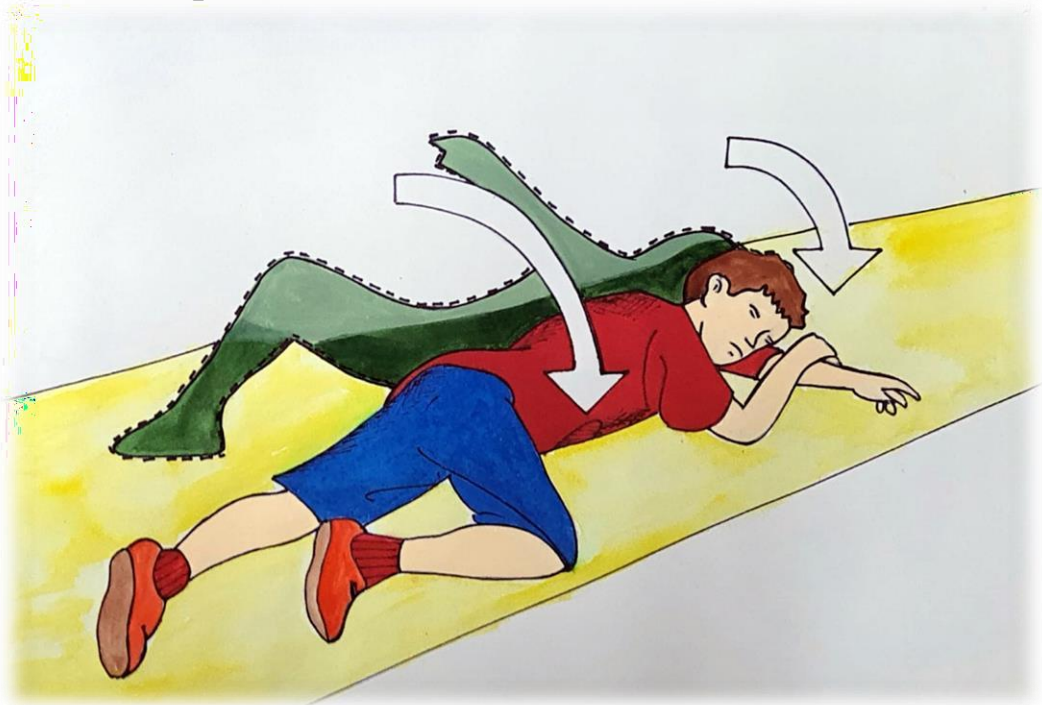


Third part is to perform 30 chest compressions. To do this one must place the heel of his/her hand on the centre of the person's chest, then place the other hand on the top and press down by 5-6 cm and give two rescue breath after 30 chest compressions.

The fourth part is to perform two rescue breath.



Turn over the person to one side.



The CPR Ratios (compression ventilation rate) for child is -

30 compressions at 100-120 beats per minutes and followed by 2 rescue breaths (tilt the head, lift the chin and give 2 effective breaths)

Unlike other days, Atul was so full of zest and positivity. After such an informative conversation with his mother, he walked down to his friend's place. He was eager to start a game of cricket with Ravi.



Before, Atul could realize where he had stepped his foot, he tripped and fell flat on the road, badly injuring himself. Last night's rainfall had left the roads quite wet and slippery with a number of potholes. He did not notice the potholes as he was lost in thoughts.



People standing at the nearby bus-stand rushed to help Atul who was inconsolable. Mr. Patil recognized Atul to be his neighbour and he along with a few others from the crowd helped Atul into the recovery position. “Atul, are you ok?”. Atul couldn’t reply to Mr. Patil as he was in terrible pain. He kept groaning, “Ahh! my elbows! my knees!”. Mr. Patil quickly searched for the injuries and found that there were bad abrasions on both the knees and elbows. His left knee was bleeding profusely. He removed the cricket kit bag off Atul’s right shoulder and called up his mother.

Ms. Shagun, Atul's mother, was busy in the kitchen preparing lunch when the phone rings loud. Mr. Patil informs her about Atul. "We would need to place a clean dressing over his wound, some sterile bandage would be fine. Please bring it right away, we are near the bus stand".





Atul was crying and still shaken. Mr. Patil spoke soothingly to him as he waited for his mother. One person from the crowd was checking his elbows and he tried to remove the foreign objects that had got stuck to the abrasions. Mr. Patil notices this and says, “handle the injured part as gently as possible as you are removing those foreign objects and do not disturb the wound and any blood clot already formed”.

Luckily, Ms. Shagun had a first aid box at home. She runs to her bedroom and quickly grabs the first aid box from the shelf and rushes out to the bus stand. “Atul! Atul! are you ok my child?” she cries out anxiously. A voice from the crowd could be heard saying, “Ma’am please don’t worry, Atul is ok”. “Oh, that’s great to see that you have kept a first aid kit at home,” said Mr. Patil. “Please give me the sterile bandage. I’ll have to apply direct pressure to the wound with the sterile dressing and bandage it firmly”.



It was almost half an hour now and it was necessary to show Atul to a doctor within six to eight hours. The ambulance had pulled up by then and a sense of relief could be felt all around. Ms. Shagun was overwhelmed with gratitude and she couldn't stop her tears as she looked at Mr. Patil and said, "Thank you so much for everything Patil ji". Mr. Patil acknowledged her with a smile and folded hands. Without making any further delay, she along with two other volunteers from the crowd took Atul to a nearby hospital.



The crowd was gradually getting thinner as they discussed about the incident. The news of this incident had slowly spread like wild fire. “Training of first aid should be imparted to the students,” said Mr. Patil to others in the crowd and his son Ravi, who had rushed to the site on knowing that a Atul is hurt. The first aid is to be rendered immediately. It is of utmost importance to ensure that he/she is safe before you can get the help of the doctor.



Ravi still perturbed said, “Dad, you have already given him first aid, then why is he taken to the hospital? Is he serious?”. Mr. Patil could see that concern and he quickly adds, “Son it should not be mistaken for a complete treatment and no one should take over the duty of the doctor on himself or herself. Our duty is to first aid to the injured. First aid is the immediate treatment to be given to the victim of an accident or sudden illness, before medical help is available”.

Ravi gave a sigh of relief and urged his father to allow him to meet his friend in the evening.

After two days of rainfall the clear blue sky added to the freshness and beauty of nature. School was going on in full swing. The bell had rung for the next period. As usual commotion could be heard as students discussed about Atul. Ravi had narrated them the incident.

Ms. Gurmeet, the Beauty and Wellness teacher overheard their conversation as she entered the class. “Yes Ravi, you are right. This could happen with anyone. Learning of first aid has become absolutely necessary now-a-days”. Realizing the presence of their teacher, everyone stands up and in chorus greet her, “Good morning, ma’am!”.





“Good morning, students! Settle down quickly. Interestingly, today I had thought of discussing about the types of injuries and how we should deal with such injuries. Ravi has already told you all how Atul hurt himself unknowingly yesterday. It is counted in ‘wounds and injuries’ which is a type of injury”.

Raashi: “Ma’am do you mean there are other types of injuries too?”.

Ms. Gurmeet: “Yes Raashi, the other types of injuries include Sun Stroke (Heat Stroke), Electric Shocks and Fainting. She further questioned, “Can anyone tell when does one get a sunstroke?”.

“Ma’am, when we stand out in the harsh sunlight for long hours”, Aryan quickly replied. “You’re right Aryan. Long exposure to great heat is the cause of sunstroke. This lead to rise of the body temperature, causing severe headache and a feeling of Fatigue & Malaise. The skin is hot and dry, and there is every evidence of high fever”.



Raashi: “How can we save ourselves from this sunstroke?”. “When a person gets a sunstroke cool bath or cold splash is needed to lower the temperature and revive him/her. So, the head should be bathed with cold water”.

Ravi interrupts, “Ma’am how many times should this be done?”.

Ms. Gurmeet: “The cold treatment may be discontinued when consciousness returns. Let the patient rest in a cool, quiet, airy room and then arrange for a physician”.



The topic interested the students a lot and everyone in the class listened to their teacher attentively.

Ravi: “Ok ma’am. But how should one deal with electric shocks? It’s so dangerous”.

Ms. Gurmeet: “It is very important not to panic. One needs to be very alert in this case. Disconnect the plug of the offending appliance or pull the main switch of the fuse box”.

Ravi: “Ma’am, is this the only treatment for such injuries?”.

Ms. Gurmeet: “Absolutely Ravi. Breaking the victim’s contact with the source of current in the quickest and a safe way possible”.



Aryan: “Ma’am, why do you include ‘fainting’ in types of injuries?”.

Ms. Gurmeet: “When there is great muscular weakness and the patient falls, if not supported. This is due to temporary weakness of the heart”.

Aryan: “Oh, so how can we help such a patient?”.

Ms. Gurmeet: “Get him/her into the recumbent position with the feet elevated or the head lower than the body. Then loosen his/her collars and bands. Splash water on the face if consciousness does not return soon, or apply smelling salts like Liquor ammonia as inhaler”.

Aryan: “Is this enough ma’am?”.

Ms. Gurmeet: “No Aryan, once this is done, complete rest should be given to the patient and he/she should be left quiet for some time.

So, the last injury we all need to know about is Fracture and Sprain. In this injury the victim complains of pain at the point of the break, and the pain is more severe on pressure or movement. The broken end of the bone may be overlapping noticeably, or the injured limb may be shorter or bent when compared with uninjured side”.





Raashi: “Last year I had fractured my hand while playing. It was really a painful experience. Ma’am, how can we help when someone faces such an injury?”.

Ms. Gurmeet: “When in doubt, handle the injury as a fracture and send for a doctor. Keep the victim lying down and warm to combat the shock. Also, the limb must be splinted to keep the broken ends of the bone from moving about and doing further damage”.

Ravi: “Ma’am, I know about Sprain. When the ligament supporting the joint or correcting bones gets torn, a Sprain occurs. But, how can we provide first aid for Sprain?”.

Ms. Gurmeet: “That’s a simple exercise Ravi. Raise the injured joint so that it will get less blood and apply cold compress”.

The bell rings for the PT period. The students looked quite thoughtful and satisfied and thanked the teacher for such useful insights about first aid. The class disperses in to the playground.

ASSESSMENT I

1. Fill the gap in the following words, correctly:

(a) C-r-u-a-i-on

(b) D-s-b-l-ty

(c) E-p-s-re

(d) P-e-e-ve

ANSWER: (a) Circulation (b) Disability

(c) Exposure (d) Preserve

2. Find out the words which are similar to the following words/phrases:

(a) Fracture -

(b) Bleeding from the nose -

(c) Long exposure to great heat -

(d) A lifesaving technique -.

ANSWER:

1. Fracture (broken bones)

2. Internal injuries

3. Dislocated joints

4. Amputations

ASSESSMENT II

1. What happens if you get hurt while playing on a playground?
2. List the most common injuries associated with playground
3. Complete the following table:

| | Previous | New | Full form |
|-----------------------|-----------|-----------|-----------|
| Word | Knowledge | knowledge | |
| 1. CPR | | | |
| 2. EMS | | | |
| 3. CAB | | | |
| 4. ABCDE in First aid | | | |

ASSESSMENT III

PROJECT WORK

1. Create you First Aid kit or box and mention the items that you must have both in school and at home.
2. Demonstrate the wrapping of gauze after an injury.
3. Recall an injury that happened to yourself or to your friend and list the steps of providing appropriate first aid to them.
4. Role play first aid scenario.

GLOSSARY

| Term | Description |
|----------------------|--|
| Heart Attack | It happens when a part of the heart muscle doesn't get enough blood. |
| Drowning | To die in water because it becomes impossible to breathe. |
| Compression | The act, process or result of increasing the pressure of a gas (oxygen). |
| Offending Appliances | To get hurt or cut by an instrument or apparatus. |
| Fatigue and Malaise | Feeling of discomfort or lack of well-being. |

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Association and the British Red Cross

SUMMARY

The story emphasises on the importance of First Aid in our daily life. First aid is the first assistance given to any person suffering from either a minor or serious, illness or injury. It is of utmost importance to save the person's life before the arrival of medical aid. Atul's curiosity could not stop him from questioning his mother about the first aid kit and its importance. Atul finds the conversation quite interesting and he further shares with his mother about Cardiopulmonary resuscitation (CPR) or Rescue Breathing which his science teacher had taught in the class the previous day. Shagun, his mother elaborates on the four parts of CPR.

After, the informative conversation with his mother, he walks down to his friend's place but trips over and falls flat on the road, badly injuring himself. The first aid is rendered immediately by Mr. Patil, Shagun and a few others, before taking him to the doctor. First aid should not be mistaken for a complete treatment and no one should take over the duty of the doctor on himself or herself. In the school Ms. Gurmeet, discusses about the different types of injuries and dealing with them.

DISCLAIMER

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