

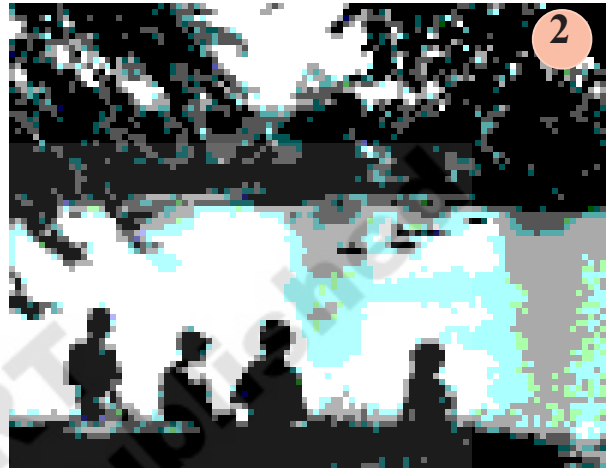
11



### 11.1. Observe the picture and say



1



2



3

- What do we see in the picture? What are the people in the picture doing.
- Where are the children sitting in the first picture? What could happen due to that?
- Where are the children sitting in the second picture what accident could possibly happen because of that?
- Where are the children playing in the third picture? What could happen?
- What did you understand from the above pictures? What should be done? What should not be done?

Sometimes accidents may happen because of the things we do. Sitting on the railings, playing on the roads or on bunds of tanks, getting down from a moving bus, travelling more than the capacity of a vehicle etc are the causes of accidents. The measures taken to avoid accidents are called "Safety Measures" safety measures are essential daily rather than on occasions like playing or travelling.

## 11.2. When is safety needed?

Murali got ready to go to a Jatara with his family. They planned to go to the Jatara which was being held at a location 50 km away from their home, on a two wheeler. They prepared food items for lunch and filled water in bottles, they switched off the electrical appliances and the gas cylinder, they closed all the doors and windows before locking the house. Murali started off with his family. They followed the rules while travelling. He stopped at all red light signals. He parked his vehicle in the parking zone, when he stopped for any purchases.

### Think and say

- ◆ What did Murali do before locking up the house?
- ◆ Why did he do so? What happens if they are not done?
- ◆ What are the other precautions to be taken when you are planning to travel?
- ◆ Where and when should precautionary measures be taken?

We should take precautionary measures in all the places like factories, jataras, cinemahalls, offices, in a journey as well as at home. Offices have arrangements to prevent fire accidents. More safety measures should be taken up where there is risk of accidents.

We should follow safety measures at home also. Very small children, usually put whatever things they see, in their mouth. Parents should take care that dangerous things are not within the reach of small children. Children get injured if they play with knives, screwdrivers, nails, pins, alpins etc. Similarly children are prone to fire and water accidents. Electrical appliances and gas cylinders are dangerous both to elders as well as children and should be handled carefully. Recently we watched on news that children were killed because of falling into sumps / tanks. What are the other ways in which the accidents may happen? Think of them and decide what safety measures should be taken up?

## Group work



- ◆ Which accidents happen at home? What safety measures should be taken up?
- ◆ What are the safety measures to be followed at school?
- ◆ What are the safety measures to be followed on road?
- ◆ What accidents could happen when children are alone? What safety measures should be followed?

Some time ago there was a fire accident in a school in Tamilnadu many children were injured. Some children died in this accident. The TN government then thought of several precautions be taken in schools to prevent fire accidents or any other accidents. 1) Children should go in groups to school or they should be accompanied by the elders. 2) They should not take to or go with strangers. 3) Sometimes people who kidnap children give drugged biscuits or chocolates to the children. They should not take any food item from the strangers. 4) Children should never be left alone. 5) They should always have details of the house address, phone number etc. 6) In case the children are alone, they should inform the parents, teachers or persons known to them. 7) If they do not have phone numbers they should take the help of the policeman or can ask the nearby shopkeeper to inform their parents.

In cities, children meet with accidents while crossing the road. See the adjacent picture. Think what will happen. We should not cross the roads at such places. We must cross the road only at Zebra crossing and where there are traffic signals. While going in



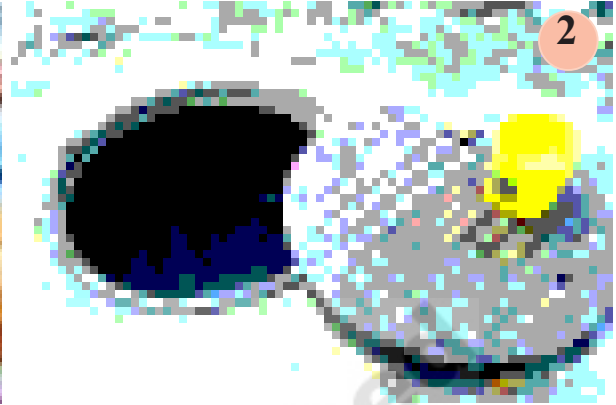
city buses we should get in or get down only when the bus stops completely.

### 11.3. Accidents - preventions

Observe the picture and say



1  
Opened hole of borewell



2  
Manhole kept open on a road



3  
Talking on cellphone while driving



4  
More people than the capacity of an auto



5  
Travelling on a bus



6  
Fire accidents in an apartment



7  
Road accident

#### Group work



- ◆ You have seen the pictures. What type of accidents occur in the first five pictures. Why? What type of safety measures must be followed.
- ◆ Why do fire accidents occur? What care can be taken to prevent them?
- ◆ Why do road accidents occur? What care can be taken to prevent them?

We should take measures to prevent fire accidents. Electrical appliances, blasting of gas cylinders cause fire accidents. Throwing burning cigarette or matchstick near petrol / diesel bunks, in grass lands or in forests cause fire accidents. We should not use lift during a fire accident. Fire engine controls the fire during the accident.



A pipe must be fixed and closed after a borwell is dug. A danger sign must be kept. There is a danger of children and elders falling into the open manholes. There are people who get lost after falling into the manholes, because, they could not see the open man holes when the roads were flooded with water in rainy season. You should inform the Municipal Corporation Personnel if you find open manholes in the city. Sufficient care must be taken while travelling in autos, buses trains etc. you should neither travel more than the capacity nor sit on the top of the vehicles. Cellphones must not be used while driving. Road rules must be followed. People riding motorcycles must wear helmets. People travelling in cars must wear seat belt. As overspeeding is one of the reasons for accidents we should drive with in the speed limit. We should not drive fast to over take the vehicles.

#### 11.4. What type of safety measures are needed?

Crowded places need safety measures. There is a possibility of accidents in the places where thousands of people gather for jataras, pushkaras, meetings and celebrations. Hence Precautionary measures should be taken up.

##### Group work



- ◆ What type of accidents might take place in crowded places?
- ◆ What precautionary measures do you take up?

##### Safety measures in Jataras

- Safe drinking water, parking place, hygienic food materials, health camp, toilets, fire engines, police help centre and arrangements to avoid drowning, barricades and announcements.

## Do you know?

### Fire extinguisher in Cinema Halls?

As part of preventive measures to avoid fire accidents in cinemahalls, offices and multistoreyed buildings fire extinguishers are fixed. Some are trained in using them.

Why do cinema halls have fire extinguishers. They are used at the time of accidents.



## 11.5. Water Accidents

Some students in Visakhapatnam went on a picnic to Rishikonda beach. They played in the sand for a long time. Then they wanted to bathe in the sea. They got into the sea. Four students drowned. In this way many students and youngsters meet with accidents in water.

### Think and say

- ◆ Why do water accidents happen?
- ◆ Where and how do water accidents happen?
- ◆ What measures are to be taken to prevent the accidents?

There is a lot of importance of water and water resources in our life. We need to go near water resources very often. It is dangerous to get into the water without knowing how to swim. We should not get into the water without the knowledge of swimming. Even if we know swimming, we should not try to swim or cross rivers, lakes and seas without knowing their depth. Villages have big wells, where people bathe. It is dangerous for non swimmers to bathe in these wells. In some places rivers and canals are crossed with the help of boats. Accidents may happen if more people get to the boat we must learn swimming to save our lives. Proper care must be taken at the time of picnics and attending Pushkaras.



## 11.6. Earthquake

Observe the picture and say



- What is seen in the picture? Why did the buildings collapse?
- Why has the earth cracked? Why does this happen?
- Do you know about such happenings? What loss do the people incur due to this?

When the earth shakes violently we call it as earthquake. The tremors or vibrations of the earth are noted on a Richter scale. If the intensity of these vibrations cross seven points, earthquakes occur. The most severe earthquakes in India occurred, in Lathur district of Maharashtra in 1993 and in Bhuj near Kutch in Gujarat in 2001. Thousands were killed and many more lost their shelters due to these earthquakes. There was property loss. Government undertook many activities to help the victims of earthquake. People of the country extended their cooperation through donations.

### Things to be done during earth quakes.

- Do not move here and there, sit near the objects that do not move easily keeping four head between your hands.
- Be away from breakable things like mirrors windows etc.
- People who live in multistoreyed buildings shouldn't use lift.
- If you are out, stand away from the buildings bridges, trees etc.
- If you are travelling drive your vehicles slowly away from the above said things.
- Try to help the injured people.
- Observe whether there are any chances of trees getting uprooted, buildings and pillars collapsing. Only then go near them.
- Stop the Electricity supply.

## 11.7. Floods

Observe the picture and say



- What is seen in the picture? When do such things happen?
- Do you know about such happenings? What loss do the people incurred due to this?
- What precautionary measures does the government take up at such times?
- What care should be taken in such situations? What help can we do?

Sometimes due to sudden and heavy rains water accumulates in rivers and canals and they overflow. At times seas also overflow. Houses, roads, trees and pillars drown or get carried away. Such a situations is called flood. People become shelterless because of floods. Things in the houses get drowned in water. There will be no water to drink or food to eat. Small children, old people and animals drown in water. Contagious diseases like cholera, malaria etc. spread. Neither clothes are available nor any shelter for protection. Severe losses were incurred due to the floods in our state in Diviseema in 1977 Mahabubnagar and Kurnool in 2009.



### Things to be done at the time of Floods

- Keep track of government warnings through radio and T.V.
- If you have to walk in the flood, do so by checking the way with the help of a long stick.
- Switch off all electricity supply.
- Go to the camps arranged by the government as a part of precautionary measure. Important things, like clothes, bedsheets must be taken along.
- Keep the things in the house in attics or high and dry places.
- Be careful while drinking water and eating food. Drink only chlorinated water.
- Do not neglect the warnings from the government.

### Think and say

- ◆ How the people in the flooded regions can be helped?

### 11.8. First Aid

Accidents may happen even after taking precautionary measures. First aid must be provided in such situations. Only those who know how to give first aid, must try it. The aid / help given to the patient or the victim before taking him/her to the doctor is called first aid. Along with providing proper treatment to save their lives.

### Do you know?

Medical personnel in 104 vehicle visit a village daily and conduct medical



tests on the villagers. They give the required medicines freely, explain the care to be taken for their health. There is a doctor and other staff in the vehicle. They explain the precautionary measures to be taken for their health. If you dial 104, free medical suggestions are given.

### Group work



- ◆ Have you ever done first aid? When and Where, What did you do?
- ◆ What first aid is usually given to the injuries in school or at home?
- ◆ Have you seen a first aid box? Where? What does it contain?

## First aid box

Every school must have a first aid box. What should be there in that box? First aid must be given immediately after the accidents. Care must be taken to see that all the things needed are there in the box. Buses also have first aid boxes, have you observed?



People who give first aid must wash their hands and if possible wear gloves before cleaning the wounds. We should not directly use antiseptic lotions like dettol.

They should be added to water and then used to clean the wounds. Ointment must be applied to the wound sufficient cotton must be put on it and then it should be plastered with a guaze. In case of sprains ice must be applied after it is wrapped up in polythene covers. Do not apply ice directly.

### Do you know?

1. Flash flood of half a feet depth can make a person fall.
2. 1 feet deep flood can make the vehicles like car fall.
3. Flasht flood of 2 feet depth can carry cars away.

## Life saving principles

We should follow three life saving principles.

### First life saving principle

Make the patient lie on the back and loosen the clothes, remove blocks in the air passage. Bend the head to a side as per the situation.

### Second life saving principle

Check whether the person is breathing. Try to provide artificial respiratoin except in case of poisoning, acid attack and vomitings.

### Third life saving principle

Observe the heart beat. If there is no response press the chest with your palms.

### Do you know?

The first hour after the accident is known as the golden hour because life can be saved by giving proper treatment in the first hour.

## Think and say

- ◆ What should you do in case of Sprains?
- ◆ What should you do in case of fractures?
- ◆ What should you do in case of burns?
- ◆ What should you do in case of poisoning?
- ◆ What should you do in case of heart attack?

### **In case of sprains**

Do not rub the ointment on the sprain. Let the sprained part rest. Apply ice wrapped in a thick cloth or polythene cover. Tie a crape bandage available in medical shops. Untie only at bed time. Keep the sprained part up.

### **In case of burns**

Keep the burnt part under cold running water for 15-20 minutes. If the burns are too severe, only then ointment must be applied. Remember - never pinch the blisters, never tie a bandage, never rub, never apply ice. Do not run in case of fire accidents but stop, drop and roll.

### **In case of poisoning**

Give lots of water to the person to decrease the intensity / severity of the poison before taking the person to the hospital. If the person either vomits or become unconscious, it indicates a medical emergency and doctor's help would be needed immediately.

### **In case of unconsciousness**

The unconscious person should be made to lie down on a side, lift the head while taking to the hospital. You should not take him / her lying down on his / her back as there is the risk of the tongue blocking the respiration.

### **In case of heart attack**

Pain in the chest is thought to be heart attack. If a person feels pinpricking sensation in the chest and pain in any other part of the body, then we can consider it as heart attack. Intense sweating, nausea and chest pain indicate heart attack.

When there are no medicines available we should make the person sit, ask him to cough and take him to the hospital. Do not let him sleep, walk or stand.

### **In case of fracture**

See that the fractured part is not moved while taking the patient to the hospital.

## Group work



- ◆ How to recognise paralysis in old people?
- ◆ What should be done incase of dog bite?
- ◆ What first - aid should be given to a victim of snake bite?
- ◆ What do you do incase of a sun stroke?
- ◆ What should be done if a chemical falls into the eyes

### How to recognise paralysis?

If anyone is suffering with B.P. in your house and they complain of nausea or senselessness, ask that person to laugh. If his mouth is crooked and he cannot speak properly and is unable lift his hand, we should take him to the hospital in the first hour (Golden hour).

### In case of dog bite

Wash the bitten area (monkeys bite, cats bite etc) with soap. But do not cover the wound with cloth or bandage.

### In case of snake bite

Most of the snakes are not poisonous a person bitten by snake can collapse due to fear. We should take steps to reduce the person's fear? We should not move the bitten parts. We should take care that the person does not become unconscious.

### In case of sun stroke

Not everyone who moves in the sun will suffer from sun stroke. The symptoms of sunstroke are high temperature, nausea, vommitings and severe headache. Do not allow the person to drink water. Wipe the person's body with a cloth dipped in the cold water (till the body regains normal temperature). Then we should give ORS solution or electrol water.

### In case of chemical falling into the eyes:

If any chemical falls into our eyes while experimenting in the lab or in the house, we should clean the eyes with cool running water for 15-20 minutes. But we should not rub the eyes even if there is sever burning sensation. We should bend our head to a side so that the affected eye is cleaned without casusing any trouble to the uneffected eye. Affected eye should be treated with cool running water for 15-20 minutes

### **In case of nausea (vomiting)**

When we stand in assembly for a long time without eating properly there are chances of us becoming unconscious due to exhaustion. In such a case instead of slapping him if you keep his legs up and bend his head sideways there is a possibility of that person gaining consciousness. Usually a person becomes unconscious because of less blood supply to the brain. By keeping the legs in a position higher than the head, the brain receives blood and the person may become normal.

### **In case of heart failure**

Let us now learn about the most important CPR

There is a possibility of heart failure when a person suffers a severe heart attack, electric shock or any other reason. The first aid given in such case is called CPR. CPR means C - Cardio P - pulmonary R - Ressuscitation and restart.

CPR is done by pressing (neither gently nor too heavily) with your palms at the spot 2-3 inches away from the place where the ribs end (chest bones). You should press 30 times taking care that your hand is straight while pressing. Then try to give him oral respiration twice. Thus we should try thrice in a minute till the heart beats again. Do not forget to close the nostrils & lift his head during artificial respiration.



## Group work



- ◆ What do you do if anything blocks the throat?
- ◆ It bleeds when injured, how to stop the bleeding?
- ◆ What to do when the nose bleeds?
- ◆ What should we do in case of electric shock?

### In case of a block in the throat

Do not try to remove the thing blocking the throat with your hand. Ask the person to bend forward and hit 4-5 times on his back. Ask him to cough when hit. If the thing doesn't come out then try to press the stomach and ask the person to cough. The thing blocking the throat may come out.

### How to stop bleeding

If the bleeding is light, press the part hard and keep it in a position above the heart'. In case of heavy bleeding there is a little chance of bleeding being stopped, hence the person should be taken to the hospital in the golden hour.

### In case of bleeding nose

Never bend the head backwards in case of a bleeding nose. Bend the head forward and press the soft part of the nose for 10 minutes. Do not use cotton to press. Do not try to stop bleeding in the person is suffering from B.P. The bleeding stops as it works as a safety valve in them.

### In case of electric shock

In case of a electric shock at home switch off the connection and remove the plug. Then go to the person and lift his chin up so that the respiration begins. If this doesn't work give him artificial respiration. Sometimes there may be heart failure due to severe electric shock. This is called cardiac arrest. Give CPR to such persons.

### Do you Know

As per the suggestions of WHO we should not tie, cut or suck the blood in case of snake or scorpion bite. There is a possibility of blood circulation being blocked if you tie. Tetanus injection must be taken in case you get cut by a blade or a knife. There is danger of the persono who is sucking the bitten persons blood also becoming pensioned.

## 11.9. Who helps?

If you happen to be near the accident spot try to help the patients. Use the facilities provided by the government. Government is providing 108 vehicle to render immediate help to the persons who get involved in accidents.



We should dial 108 in case of fire accident, road accident and natural calamities. This is a free service. If you dial 108, they will inform fire engines, ambulance or police as per the need. They help immediately, so everyone should take safety measures within one's reach to prevent accidents and ill health. Give first aid when necessary. Use the facilities provided by government. Learn about first aid and use this knowledge as the situation demands. The members of St. John's Ambulance are creating an awareness on first-aid among school children. If they are consulted, they will give a presentation on first-aid at the Schools.

We should not neglect the road accidents. Many people do not care for the wounded people. This is highly objectionable and unpardonable crime. We or our friends and relatives also may meet with accidents. What would happen if no one cares? Think...

Even crows also gather around their fellow crow when something untoward happens. We should be better than crows. We should take the wounded person to hospital by keeping a side all our work. Thus we become life savers. Their family will be grateful to you.

### Key words

|                 |                        |                 |
|-----------------|------------------------|-----------------|
| Safety measures | Natural calamities     | Water accidents |
| Accidents       | Fire accidents         | Road accidents  |
| Earthquake      | First aid              | 108 Vehicle     |
| Floods          | Life saving principles | 104 Vehicle     |



## What did we learn?

### 1. Conceptual understanding

- Why should we take safety measures?
- When is first aid needed?
- What precautions should be taken in a journey?
- Whom do you call if a house is on fire in your street? Why?
- Ramesh's grandfather was bitten by a snake. His father took him to the people who recite mantras? What will you do? Why?

### 2. Questioning and hypothesis

- What questions will you ask to know more about 108 services?
- What questions will you ask the electrician to know more about the care to be taken to avoid electric shock.
- Fire engine came to Ramu's house. Guess why?
- What are the contents of a first aid box? Guess and Confirm with a doctor.

### 3. Experiments - field observations

- Keep some slates one above the other. Construct a house on it with small card board pieces. Pull out a slate. Observe what happens and write.
- Visit an accident spot which is nearby. Record your observations.
- Visit an office, cinema hall or industry nearby. Observe the safety measures taken.

### 4. Information skills, projects

- Collect the details of the recent flood / cyclone / road accident / fire accident from the news papers. Make an album and display. Discuss the reasons and preventions in groups.



b) Collect the following details from health worker.

| Accidents in a month | First aid given | Suggestions given after first aid | Present status of health |
|----------------------|-----------------|-----------------------------------|--------------------------|
|                      |                 |                                   |                          |

c) Collect the names of the officers and their cell numbers concerning emergency services i.e., 108, 104, fire engine, hospital, ambulance, electricity office, police station etc.

### 5. Communication through mapping skills, drawing pictures and making models

- ◆ Draw pictures of a fire engine and 108 vehicle.

### 6. Appreciation, values and creating awareness towards bio-diversity

- Why should we appreciate the services of 108 staff?
- What kind of help would be appreciated in case of natural calamities (floods, cyclone, fire accidents) what help would you do?
- What is the need of first aid? What can you do if you learn it?

#### Can I do this?

- I can talk about safety measures. I can explain where and how to take safety measures. Yes / No
- I can observe and record the details of an accident. Yes / No
- I can collect the details from health workers. I can collect the emergency services phone numbers. Yes / No
- I can help in a natural calamity. Yes / No
- I can ask questions to know more about the details of 108 and 104 vehicles. Yes / No