

AN ADVENTUROUS FACE-OFF

With an Earthquake



An Adventurous Face-off with an Earthquake

Comic book series about 5 major hazards (Cyclone, Domestic Fire, Earthquake, Heatwave and Thunderstorm & Lightning) for spreading awareness amongst children in the age group of 8-13 years.

First Edition : January-2022

Published by

Gujarat Institute of Disaster Management

B/h Pandit Deendayal Petroleum University,
Koba-Gandhinagar Highway, Raysan,
Gandhinagar - 382007, Gujarat, India.

Tele : (079) 23275804 / 806 / 808 / 811

www.gidm.gujarat.gov.in

Supported by

United Nations Children's Fund

Gujarat State Office,
Plot # 145, Sector 20,
Gandhinagar- 382 021, Gujarat, India.
www.unicef.in

At Kinjal's home



You are so excited. Is there anything special happening in school today?

Yes, Today we will have our first lecture on hazards and safety.

At Rahul's home



Maa, hurry up! I am getting late. Today, we have a special lecture on school safety.

Yes Son!

At the school, in the classroom



Good morning students! Are you all excited for today's special lecture?

Yea teacher! What are we going to learn today?



Today, we will talk about earthquakes.

?!?

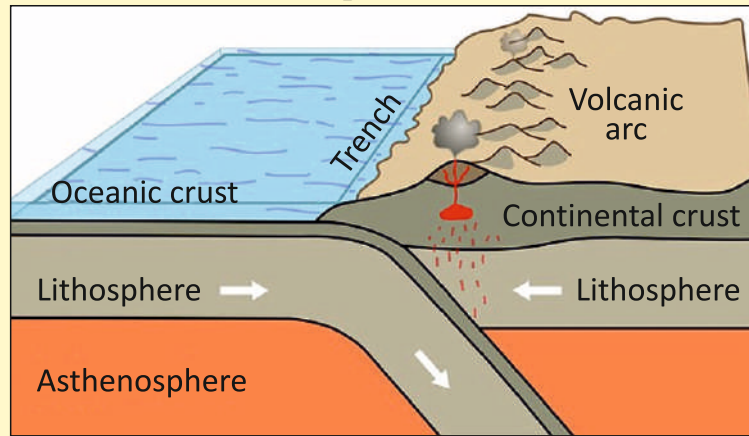
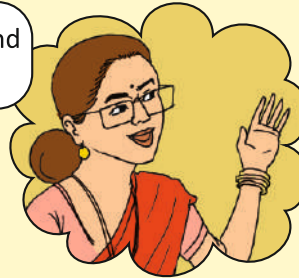
?!?

What's an Earthquake?

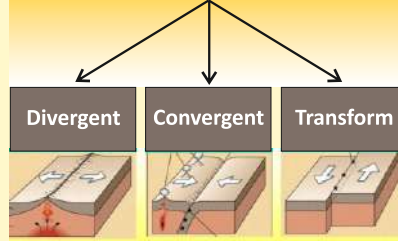
Earthquake is the sudden shaking of the Earth's crust. Let me explain how this happens.



Look at this picture and understand that...

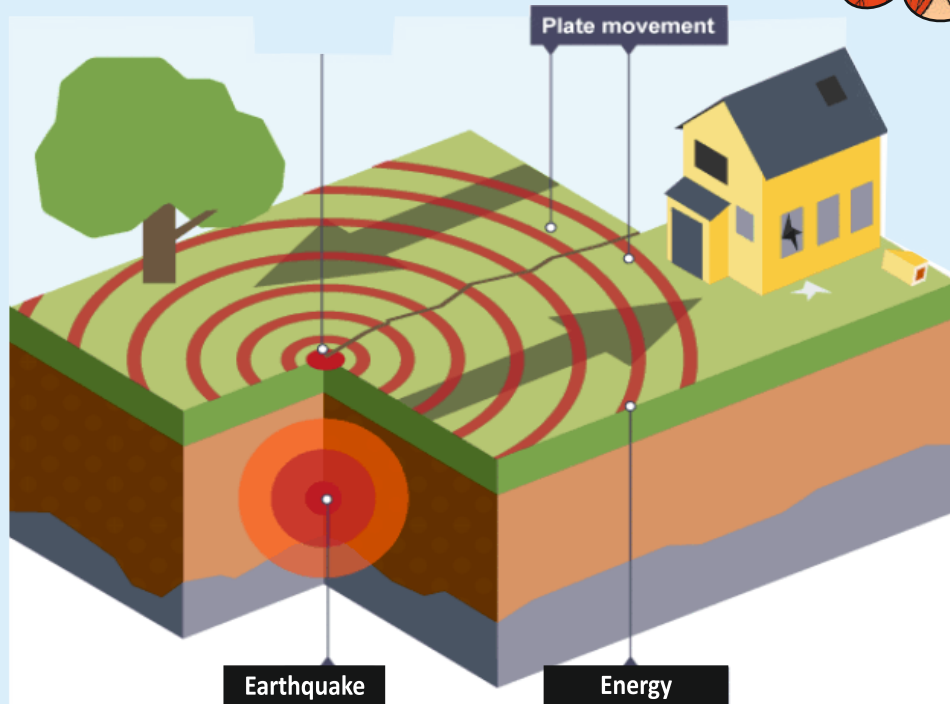
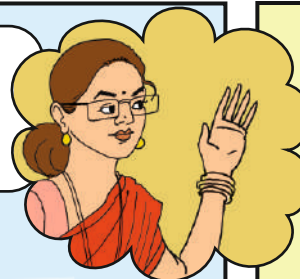


There are 3 types of tectonic plate movement.



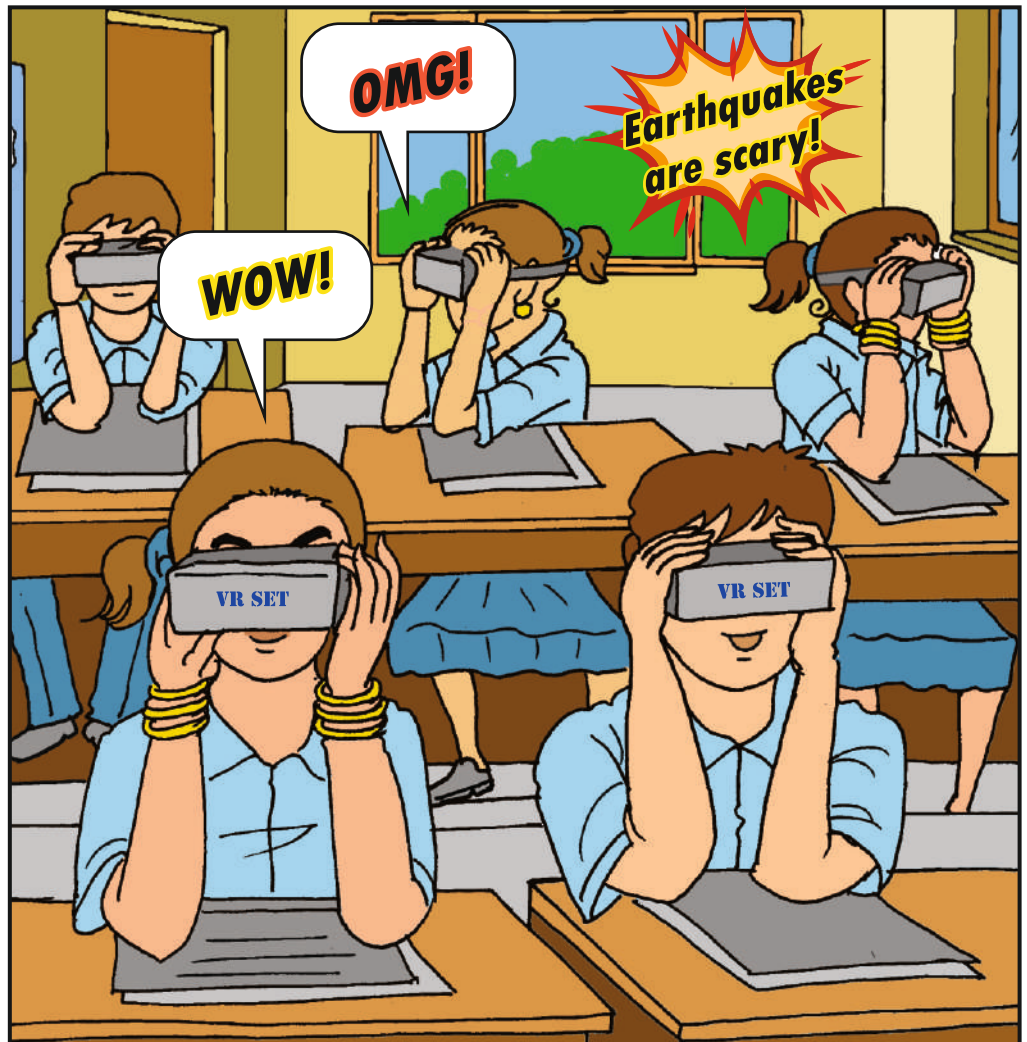
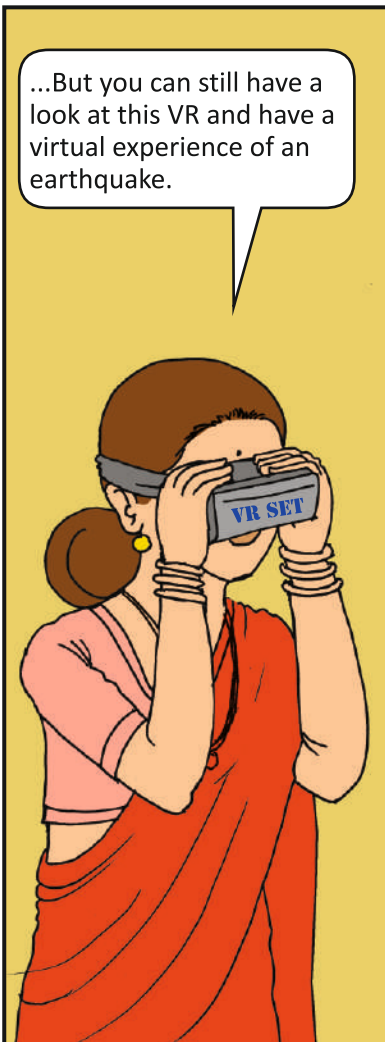
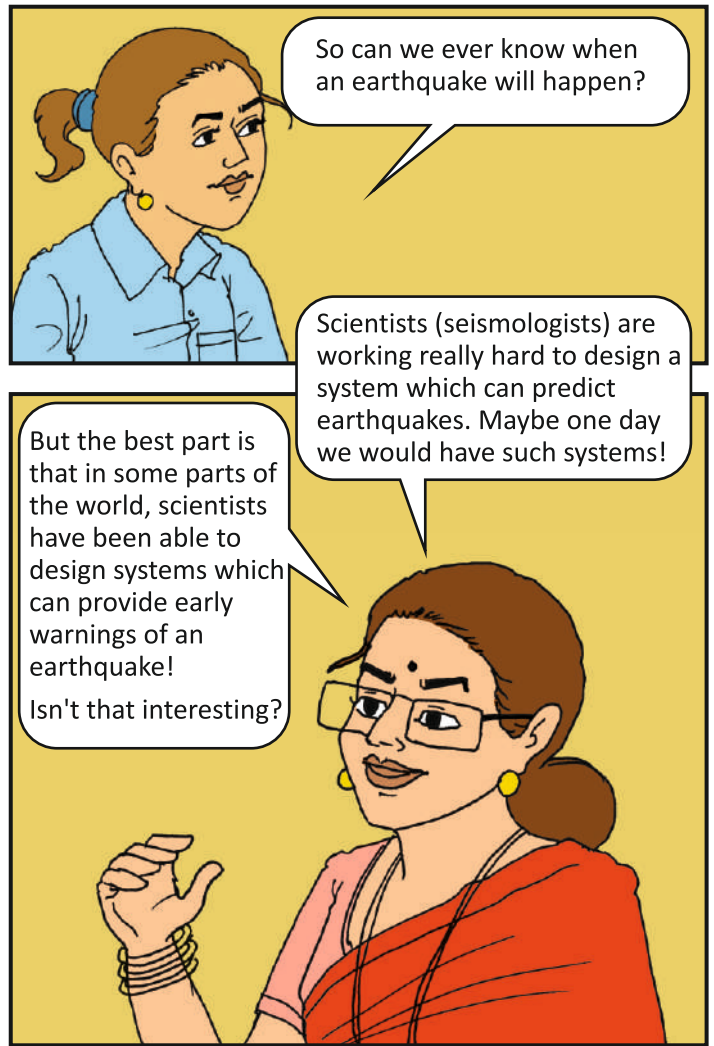
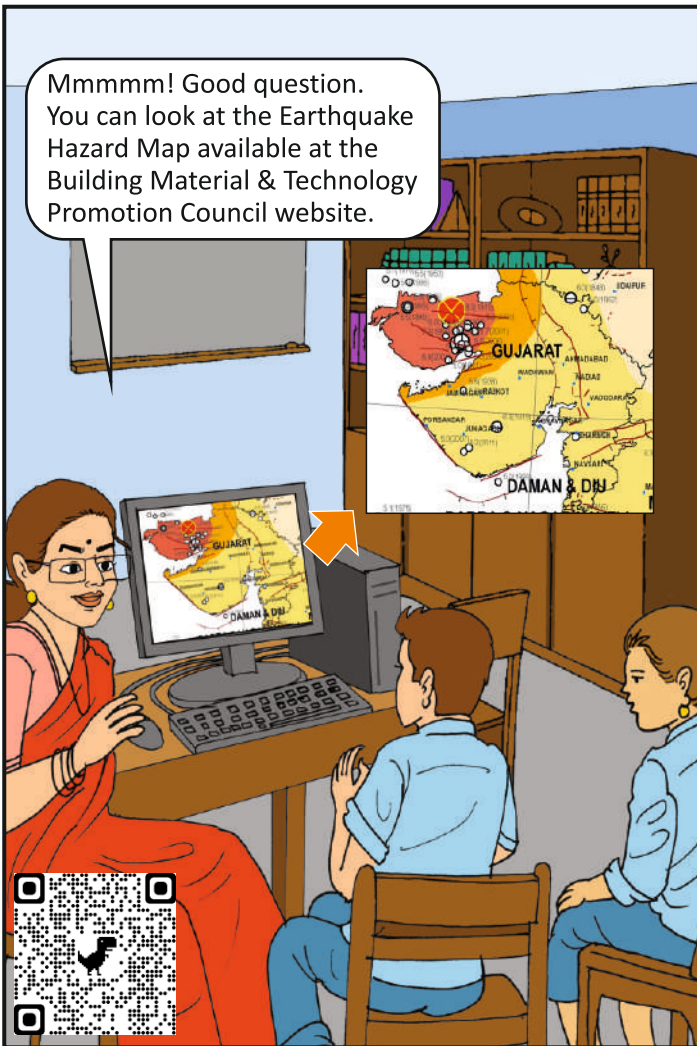
The earth is made of three layers, the outermost is the crust which consists of plates on a semi-solid mantle! There are several very large plates, and many smaller plates. All of the plates are moving.

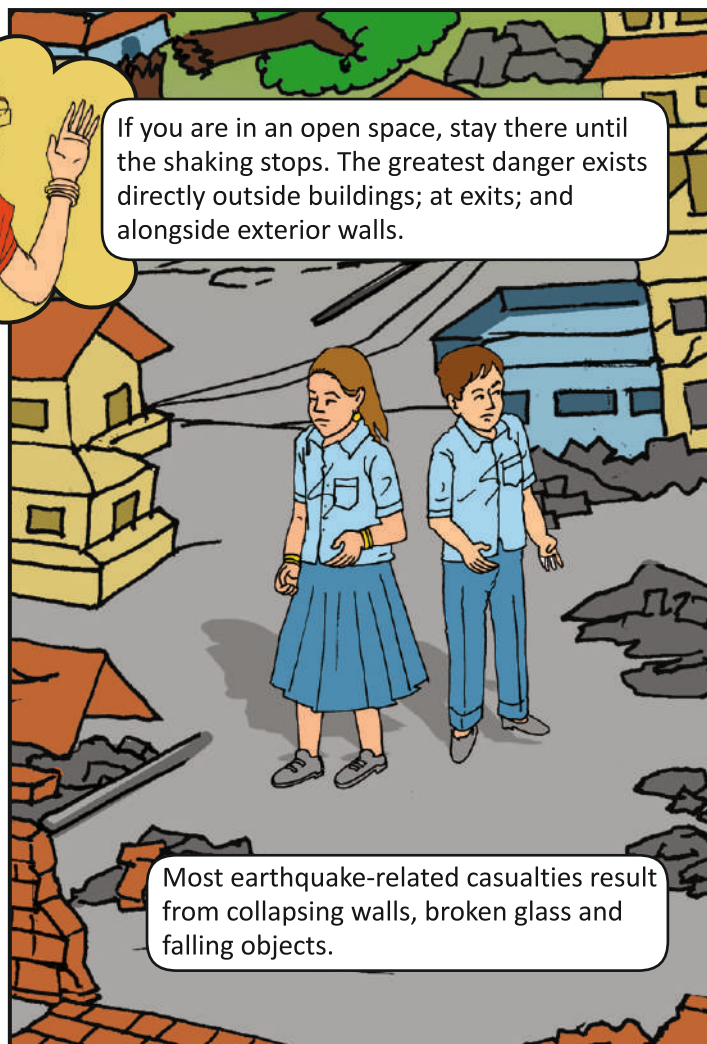
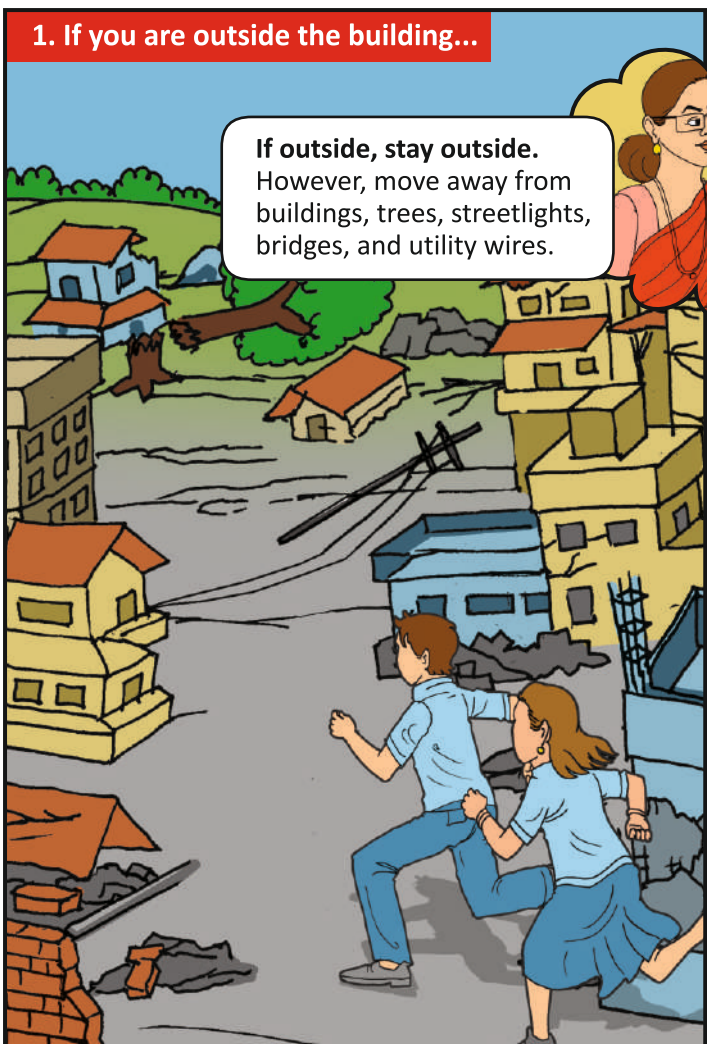
In this process, energy is released and the amount of energy released is expressed as **magnitude**. The effect of this release of energy results in shaking of the ground. How much the ground shakes is expressed as **intensity**.



That's interesting! How do I know if my town can experience earthquakes or not?







2. If indoors...

If inside, Stay inside till the shaking stops. **"DROP, COVER and HOLD"**!

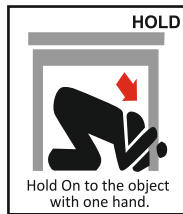
DROP
to the ground;



Take **COVER** under something **STURDY**, by getting under a sturdy table or any other piece of furniture.



HOLD on to any secure furniture until the shaking stops.



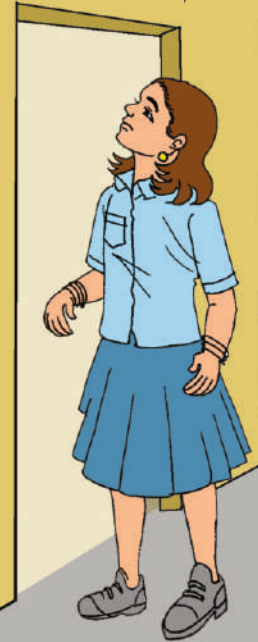
If there is no table or desk near you

Cover your face and head with your arms/bag and crouch in an inside corner of the building.



Sit with your back against the wall, bring your knees to your chest and cover your head.

Protect yourself by staying under the lintel of an inner door, in the corner of a room.



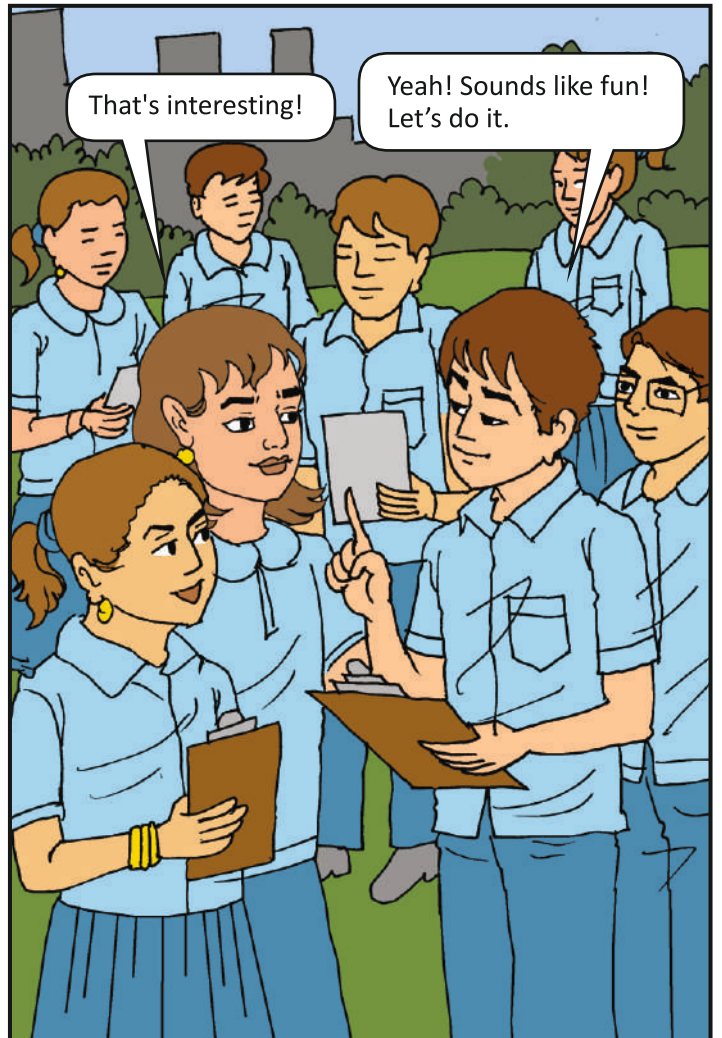
Now, Let's do an interesting hazard hunt exercise.

You have to identify what all things in this classroom can fall, break and/or block passage during an earthquake.



That's interesting!

Yeah! Sounds like fun! Let's do it.



Hazard Hunt exercise begins ...

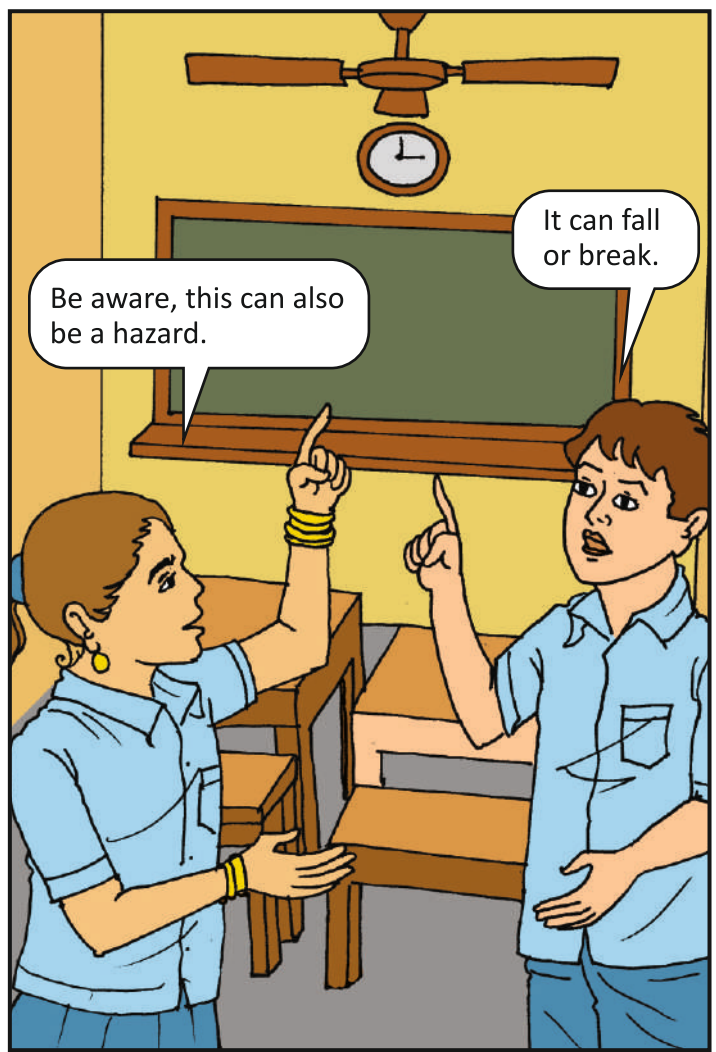
It can fall and cause serious injury or block passage.

We have to be careful about such heavy objects.



Be aware, this can also be a hazard.

It can fall or break.

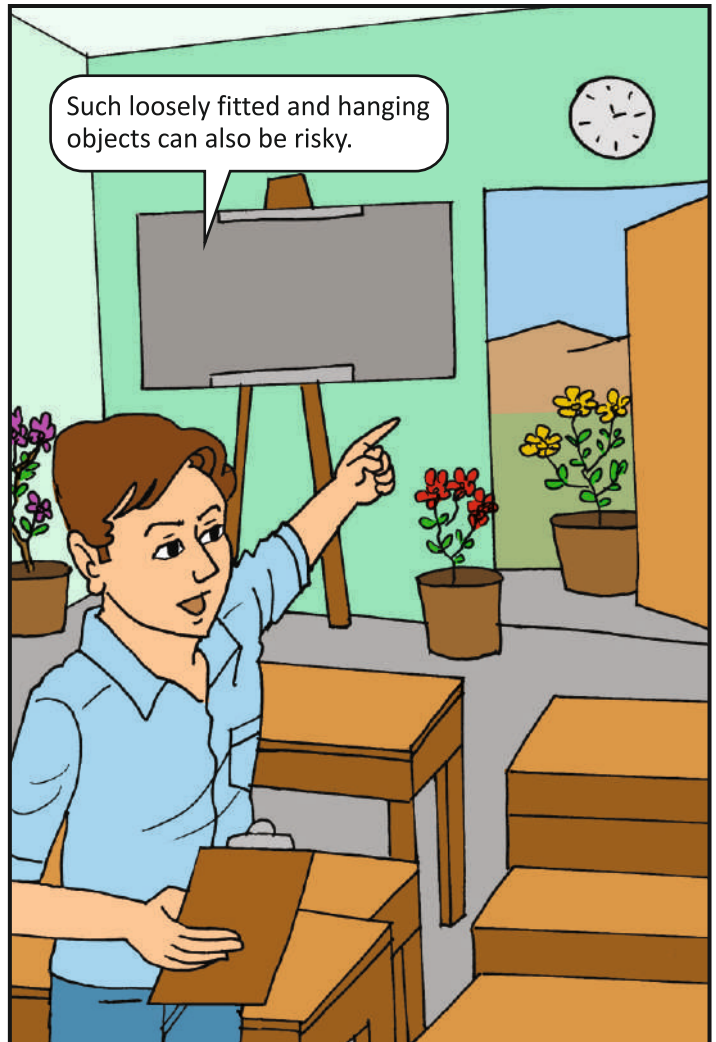


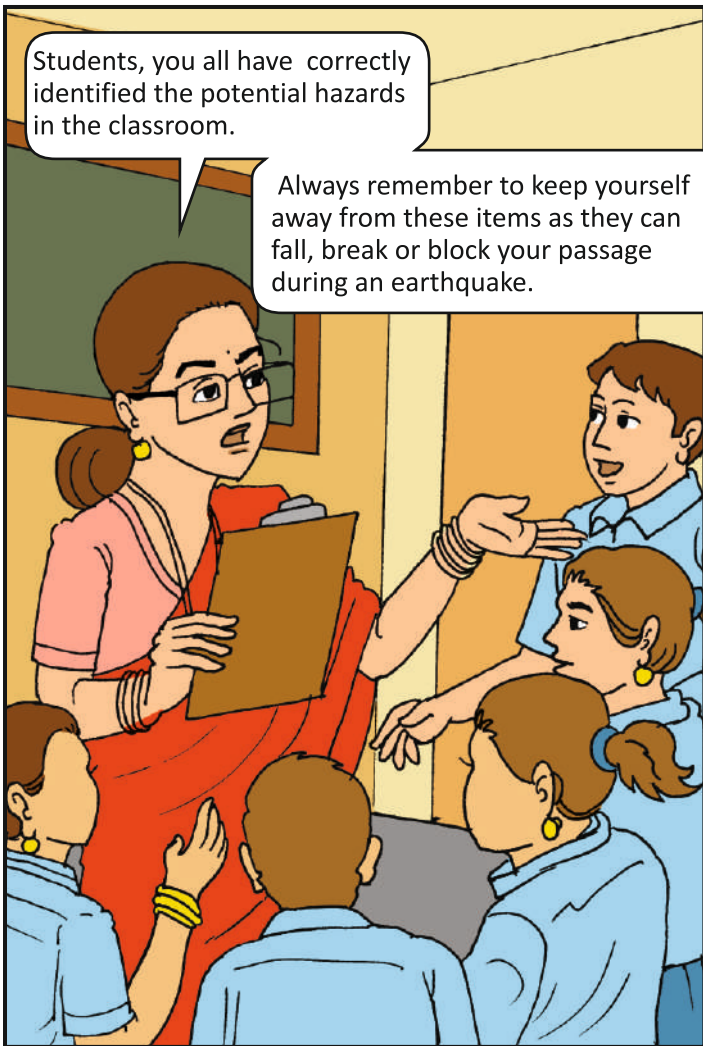
Broken glasses can cause serious injury.

Stay away from windows during an earthquake.



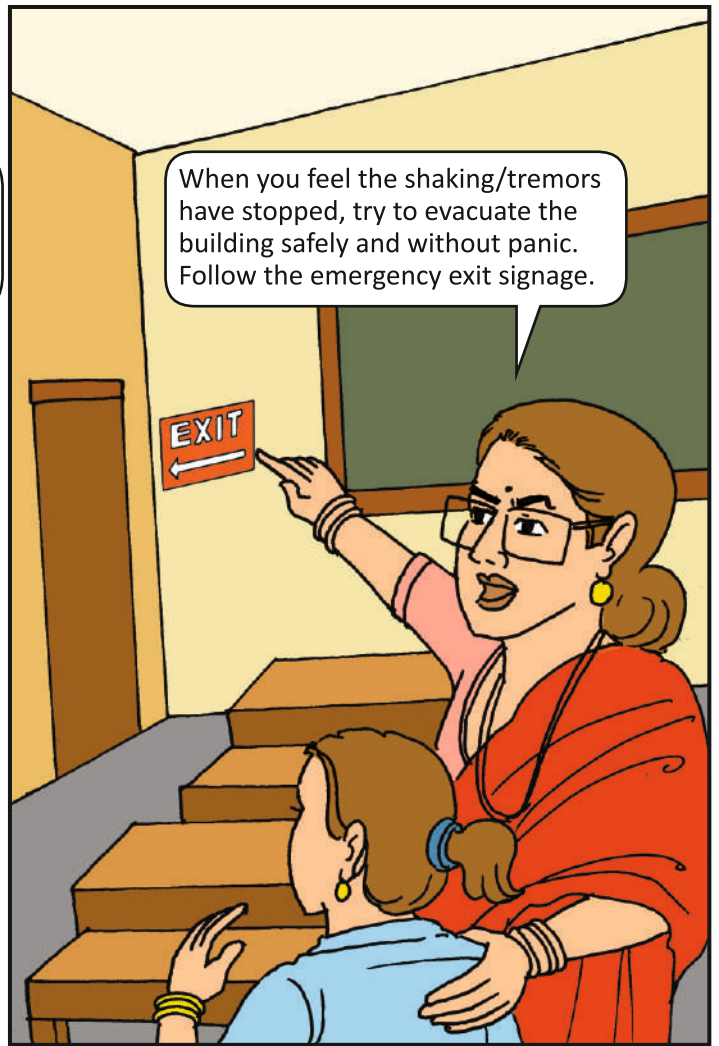
Such loosely fitted and hanging objects can also be risky.





Students, you all have correctly identified the potential hazards in the classroom.

Always remember to keep yourself away from these items as they can fall, break or block your passage during an earthquake.



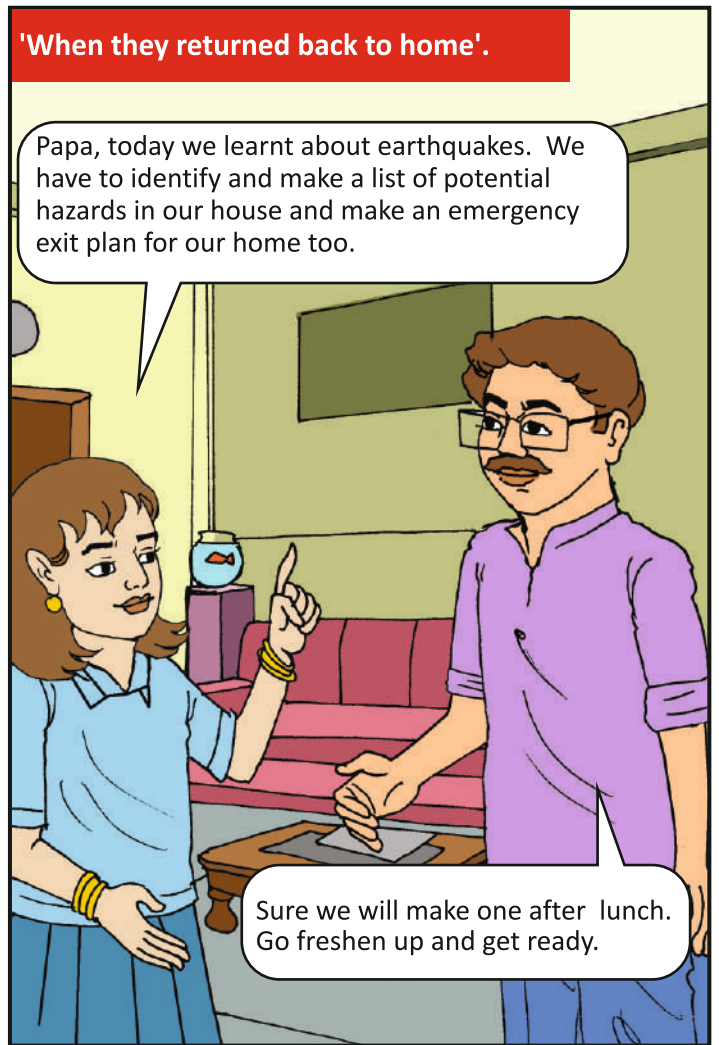
When you feel the shaking/tremors have stopped, try to evacuate the building safely and without panic. Follow the emergency exit signage.



Now you may all go home and as an assignment, prepare such a list for your home too.

Yes!

Bye.. Bye!



'When they returned back to home'.

Papa, today we learnt about earthquakes. We have to identify and make a list of potential hazards in our house and make an emergency exit plan for our home too.

Sure we will make one after lunch. Go freshen up and get ready.

AN ADVENTUROUS FACE-OFF

With an Earthquake



Prepare

Talk about earthquakes. Tell the facts about earthquake to your family members. Discuss how and why earthquakes occur.

Find safe spots in your home. Choose a safe place in each room of your home. Safe spots are places where you can take cover, such as under a sturdy desk or table, or next to an interior wall.

Practice DROP, COVER and HOLD ON. Drop under something sturdy, hold on and protect your head and neck by pressing your face against your arm. Practice earthquake drills.

Be Prepared. Take the training for first aid and fire fighting. Do not keep heavy and fragile things on the shelves. Keep your important documents, some cash and necessary articles ready in a bag. Identify special skills of neighbor (medical, technical) so that it can be utilized in emergency.

During an Earthquake

If inside, Drop, Cover, and Hold On.—Drop to the ground and take Cover under something sturdy like a desk or table. With one hand Hold On to the object and with your other arm protect your head and neck.

If outside, find an open spot. Find a clear spot away from buildings, trees, streetlights and power lines. Drop to the ground and stay there until the shaking stops.

If in a vehicle, stop. carefully move your car as far out of traffic as possible and stop. Do not stop on or under a bridge or overpass or under trees, light posts, power lines, or signs. Stay inside the car until shaking stops

Following an Earthquake

Do not Panic. Do not be afraid of the aftershocks. Listen & watch to radio-TV and other media for Government Announcement. Check for injuries to yourself and those around you. Take first aid where you can. Examine walls, floors, doors, staircases and windows to make sure that the building is not in danger of collapsing. Do not enter into the unsafe or risky houses or buildings. Inspect for gas leaks, switch off electric lines, eliminate fire hazards. Do not keep telephone lines busy unnecessarily.

Involve children in recovery. After an earthquake, include your children in clean-up activities if it is safe to do so. It is comforting to children to watch the household begin to return to normal and to have a job to do.

Listen to children. Encourage your child to express feelings of fear, anxiety or anger. Listen carefully, show understanding, and offer reassurance.

Earthquake Magnitude Scale

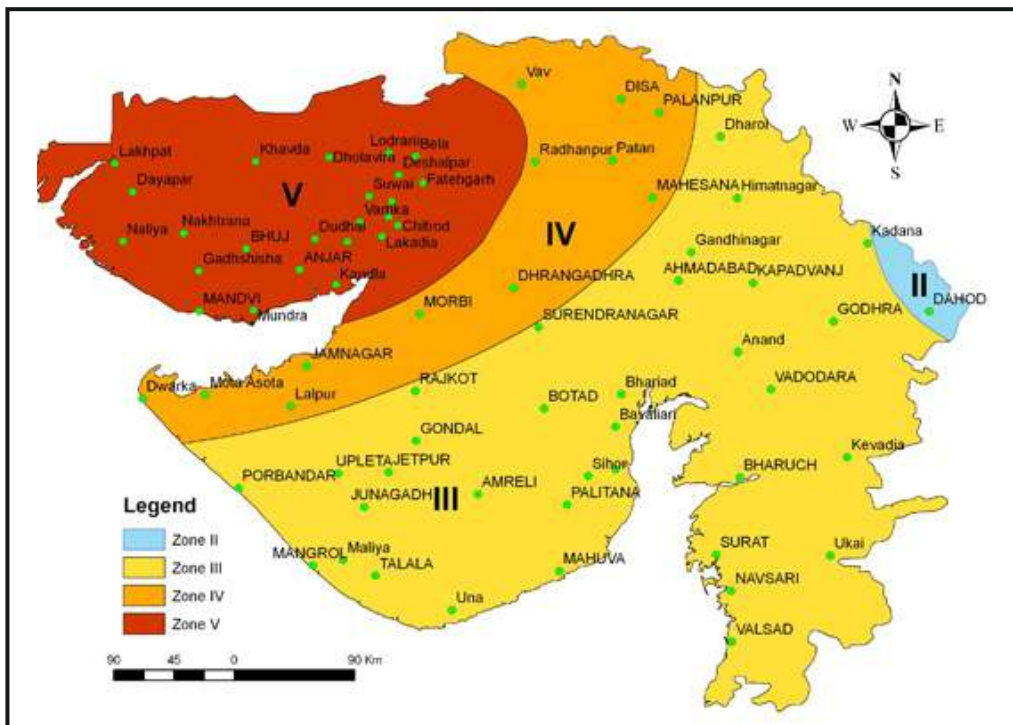
Magnitude	Earthquake Effects
2.5 or less	Usually not felt, but can be recorded by seismograph.
2.5 to 5.4	Often felt, but only causes minor damage.
5.5 to 6.0	Slight damage to buildings and other structures.
6.1 to 6.9	May cause a lot of damage in very populated areas.
7.0 to 7.9	Major earthquake. Serious damage.
8.0 or greater	Great earthquake. Can totally destroy communities near the epicenter.

Earthquake Magnitude Classes

Earthquakes are also classified in categories ranging from minor to great, depending on their magnitude.

Class	Magnitude
Great	8 or more
Major	7 - 7.9
Strong	6 - 6.9
Moderate	5 - 5.9
Light	4 - 4.9
Minor	3 - 3.9

Gujarat Earthquake Zones...



A major earthquake occurred in India on 26th January 2001 in Kutch district of Gujarat.

Kutch District located in Very High Risk Zone – V.

Parts of Jamnagar, Rajkot, Patan and Banaskantha in High Risk Zone – IV.

Most other parts of the State lie in Moderate Zone - III and a very small part in Low Damage Zone – II.

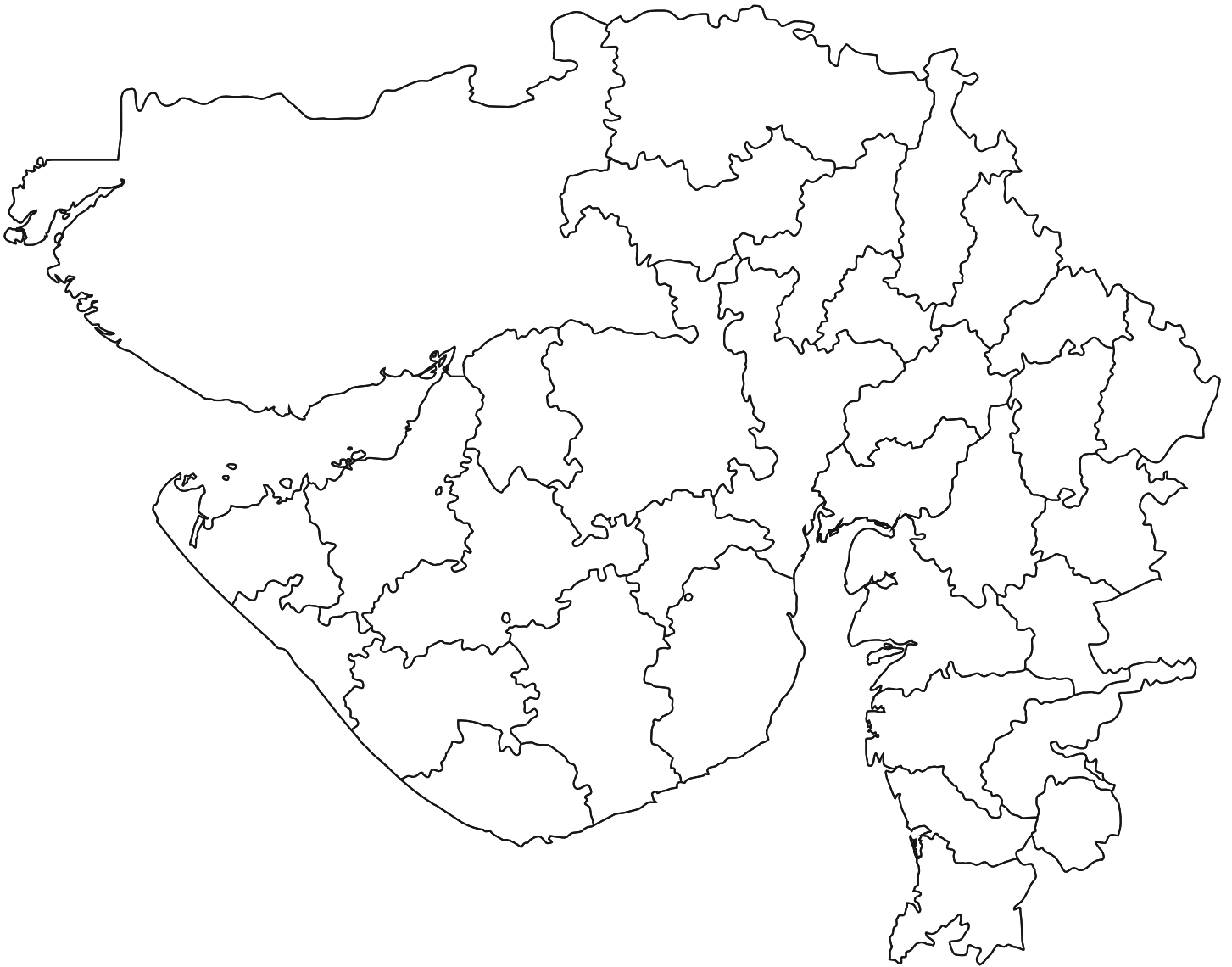
Earthquake risk is very high in Gujarat. The State has suffered major earthquakes in - 1819, 1845, 1847, 1848, 1864, 1903, 1938, 1956 & 2001 (9 times in past 200 years). The 2001 Kutch earthquake was the third largest and second most destructive earthquake in India over the last two centuries.

Source : <https://isr.gujarat.gov.in/>
<http://www.gsdma.org/>

Fun & Learn Activity

Identify your district in the given map
and color it according to the risk zone it falls into.

(You can refer the map given on previous page.)



This is just an illustrative representation and not to scale.



YOU CAN BE A LEADER. AN AWARE AND SAFER COMMUNITY BEGINS WITH YOU.

YOU CAN MAKE A DIFFERENCE.



START TALKING TO YOUR FAMILY, FRIENDS AND TEACHERS ABOUT HOW TO MAKE YOUR COMMUNITY BETTER PREPARED FOR DISASTER RISKS.

BE A PART OF DISASTER MANAGEMENT COMMITTEE IN YOUR SCHOOL.



GET FIRST AID TRAINING.



YOU CAN HELP YOUR SELF AND OTHERS TOO.