



U.S. Army Corps of Engineers/NOAA

When a tsunami hit Hilo, Hawaii on April 1, 1946, it was no joke. Each house on the town's main street facing the bay was washed across the street and smashed into buildings on the other side.

T IS FOR TSUNAMI

BY OLIVER TAGGART

PARKER WHITE

ANDREW OLESEN

SEBASTIAN ESCUELA

CAMILLA SEBREROS

A IS FOR AFTER MATH

THE AFTER MATH OF A TSUNAMI IS NOT
VERY CALMING BECAUSE OF HOW MUCH
DESTRUCTION IS CAUSED.



TSUNAMIS CAN WIPE OUT
WHOLE CITIES AND TOWNS
AT A TIME. THEY KILL
THOUSANDS OF PEOPLE IN
A SINGLE HIT. MANY PEOPLE
LOSE LOVED ONES AND
LOSE THEIR HOMES DUE TO
TSUNAMIS.

B IS FOR BEWARE

YOU MUST BEWARE IF A TSUNAMI IS THERE OR ELSE YOUR CHANCE OF SURVIVING IS VERY SLIM AND VERY RARE.

YOU MUST KNOW WHEN A TSUNAMI IS GOING TO HAPPEN SO YOU WILL BE READY WHEN IT COMES. THE WAVES WILL STOP, AND ANIMALS WILL MOVE AWAY FROM THE DANGER. GO WHERE THE ANIMALS ARE MOVING TO GET AWAY FROM DANGER.





is and Clark set up a salt works on this stretch of the Pacific coast
side, Oregon.

C IS FOR COAST

- ALMOST ALL TSUNAMIS HAPPEN ON OR NEAR COASTS. THERE STILL IS A CHANCE OF IT HAPPENING SOMEWHERE ELSE. IF YOU DO SEE A TSUNAMI, RUN! GET TO HIGH GROUND OF SOMEWHERE SAFE SO YOU DON'T GET HURT. ONLY COME OUT OF YOUR HIDING PLACE WHEN YOUR RADIO OR PHONE TELLS YOU TO.

D IS FOR DEBRIS

AFTER A TSUNAMI STRIKES
THERE IS TONS OF DEBRIS AND
THAT MAKES THE CITY LOOK
SORT OF SCARY.

DEBRIS IS FORMED WHEN A STRUCTURE
FALLS AND THE REMAINS ARE LEFT YOU
GET DEBRIS. IT CAN MESS WITH THE AIR
AND MAKE DUST AND SMOKE. IT CAN
MAKE IT VERY HARD TO BREATHE.



E IS FOR

EARTHQUAKE

AN EARTHQUAKE IS
WHEN THE GROUND
STARTS TO SHAKE AND
IF IT HAPPENS UNDER
WATER THERE COULD BE
A TSUNAMI OUTBREAK

AN EARTHQUAKE HAPPENS WHEN THERE IS A FAULT
IN THE EARTH'S PLATES CAUSING THE GROUND TO
SHAKE AND IF IT HAPPENS IN IN THE OCEAN IT CAN
DISRUPT THE WATER MAKING A TSUNAMI. LUCKILY
MOST UNDERWATER EARTHQUAKES DON'T MAKE A
TSUNAMI. BUT IF DOES YOU NEED TO TAKE COVER.



F IS FOR FAST

IF YOU SEE A TSUNAMIS,
YOU NEED TO RUN VERY FAST
OR ELSE THIS VERY DAY MAY
BE YOUR LAST.

A TSUNAMI IS VERY FAST IT CAN GO UP TO 40
MPH. THEY ARE SUPER-FAST AND HAPPEN QUICK.
PEOPLE THINK AFTER A TSUNAMI IS BETTER
THAN DURING IT BUT IT'S THE OTHER WAY
AROUND



G IS FOR GROW

WHEN A TSUNAMI STRIKES IT CAN KNOCK DOWN BUSHES, SHRUBS, AND TREES AND NOTHING WILL GET A GOOD BREEZE.

After a tsunami people will have to grow more plants and trees. lots of animals will lose their homes due to the destruction. But you can help by planting more trees like Mr. Beast.



H IS FOR HARMFUL

TSUNAMIS ARE VERY HARMFUL, AND
THEY CAN BE VERY ALARMFULL.

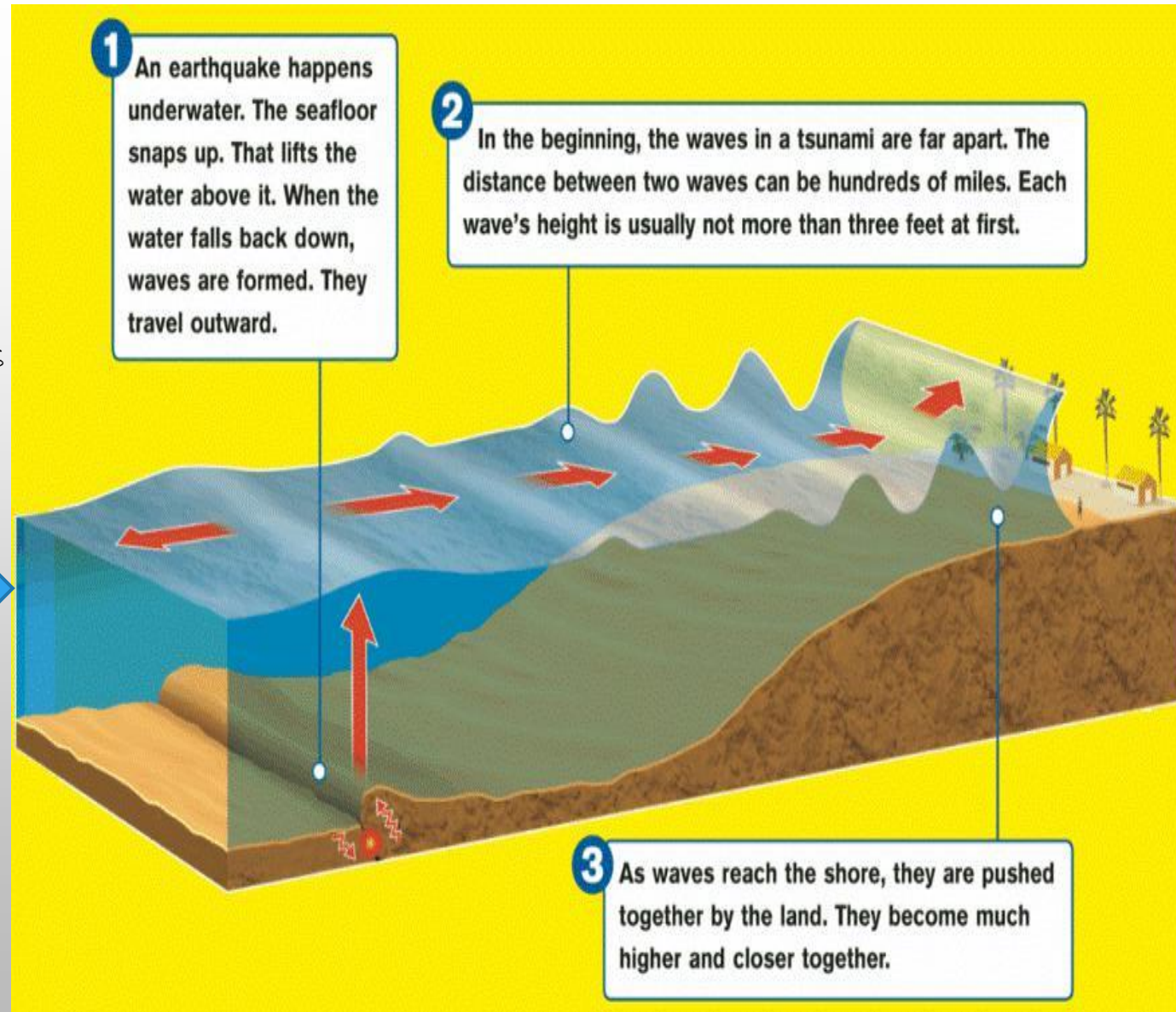
TSUNAMIS CAN DESTROY MANY
HOUSES
AND WORKPLACES. THEY
ARE DEADLY AND TSUNAMIS CAN
HURT YOU . TRY TO STAY SAFE
WHEN THERE IS A TSUNAMI A
WAY TO DO THAT IS BY GOING
TO A MOUNTAIN AND STAY
THERE TILL ALARM OR IF A
PERSON TELLS YOU IT'S GOOD TO
GO DOWN.



I IS FOR INTENSITY

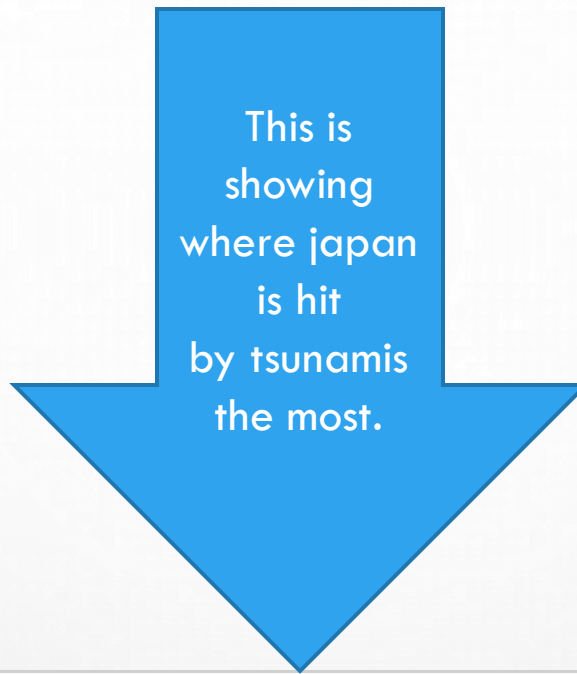
TSUNAMIS CAN CLASSIFY IN DIFFERENT TYPES OF INTENSITY DEPENDING ON THE SIZE HOW FAST IS AND THE DAMAGE IT CAUSES.

The levels of a tsunami

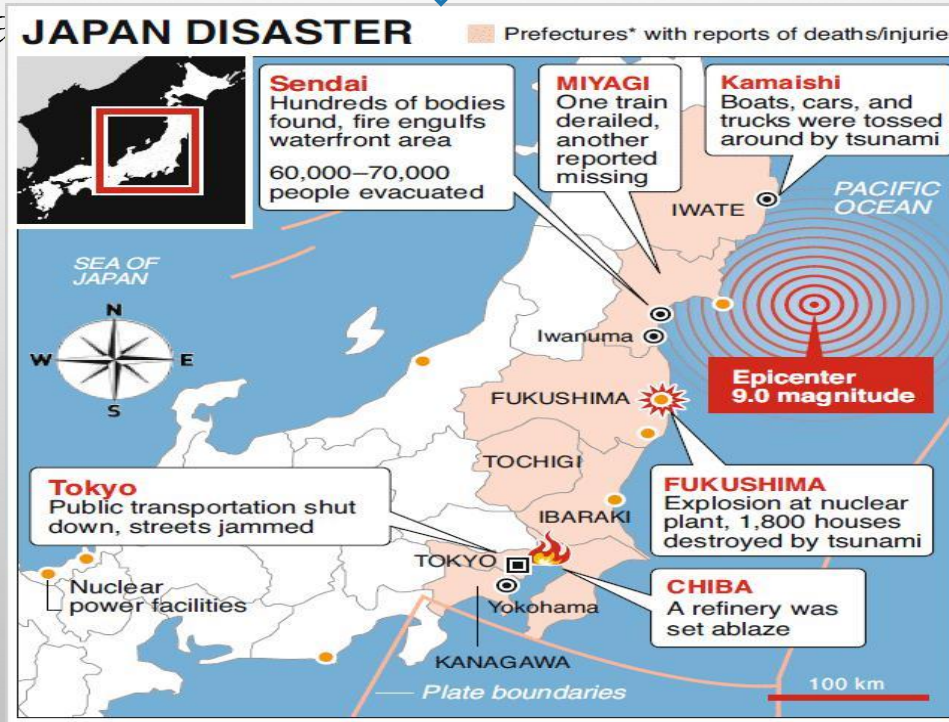


J IS FOR JAPAN

JAPAN WAS HIT BY A
TSUNAMI AND LOTS OF
PEOPLE LOST THEIR MONE



JAPAN WAS HIT BY A
TSUNAMI 8 YEARS AGO
AND OVER 19,000 PEOPLE
WERE KILLED. IT WAS
VERY SAD AND BY THE
INFO IN THE FIRST
SENTENCE LOT WERE
KILLED. IT WAS ONE OF
THE STRONGEST
TSUNAMIS EVER!



K IS FOR KILL

During a Tsunami, a lot of people can get killed. It can destroy cities at a time. After a tsunami everything looks depressing and sad. It looks like something out of a movie but its real.



L IS FOR LANDSLIDE

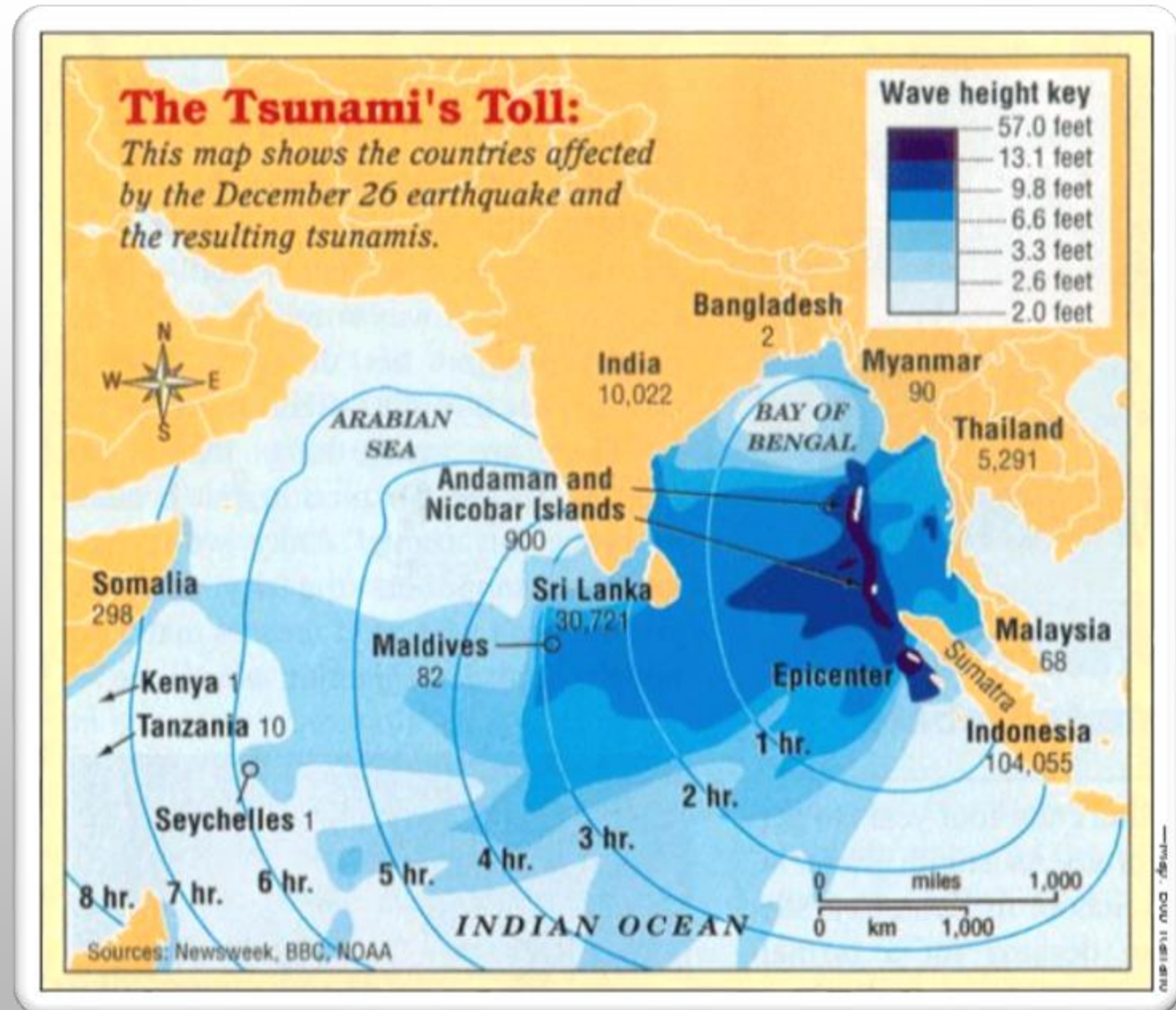
A tsunami can start a *land slide* and if it does you might want to *hide*.

A LANDSLIDE HAPPENS WHEN A LOT OF MUD OR DIRT ROLLS DOWN A STEEP HILL. IT CAN CAUSES A TSUNAMI WHEN THE MUD OR DIRT ROLLS INTO WATER CREATING OF HUGE SPLASH THAT CAUSES A TSUNAMI. BUT THAT WILL ONLY HAPPEN IF THE LANDSLIDE HAPPENS NEAR WATER.



M IS FOR MASSIVE

A MASSIVE WAVE MAY SEND YOU INTO YOUR GRAVE SO BE READY IF IT COMES. DID YOU KNOW THAT TSUNAMIS CAN GET UP TO 100-200 FEET TALL! THE BIGGEST TSUNAMI WAS THE ONE THAT HIT JAPAN, AND THAT ONE WAS NO JOKE. IT KILLED SO MANY PEOPLE. IF YOU'VE READ SLIDE J YOU ALREADY KNOW ABOUT IT.



N is for Number

A TSUNAMI CAN JUST LEVEL A CITY AND CAN CAUSE A NUMBER OF DEATHS MOSTLY FROM DROWNING, BLEED OUTS AND OR HIT WITH **DESTRUCTION**. LOSING LIVES AND HOUSES CAN PUT A HUGE DENT IN THE ECONOMY. IT MIGHT ALSO BE HARD FOR THE LOSS OF "TAXPAYERS". FINALLY JUST HOW LONG IT WOULD TAKE TO HAVE PEOPLE MOVE BACK IN AND DOING THE PROCESS REPEATEDLY. FOR MY LAST WOULD OF ADVICE DON'T LIVE NEAR THE BEACH KIDS.

picture of a
tsunami
that destroy
ed
a Japanese
city



Destruction caused by a tsunami in Niigata, Japan.

O IS FOR OCEAN

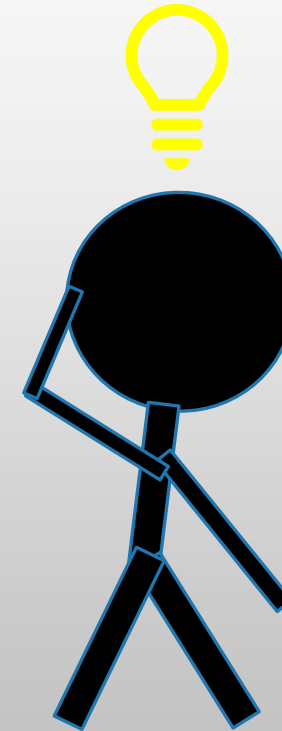
TSUNAMIS FORM MILES FROM SHORE SO THERE IS NOT A LOT OF WARNING. THERE IS ONE BIG SIGN THAT WILL WARN YOU, THE WAVES IN THE OCEAN WILL STOP. ALSO, ANIMALS MOVE AWAY FROM DANGER. IF YOU EVER SEE A TSUNAMI RUN THE OTHER WAY.



P IS FOR

PREDICT

WHEN A WEATHER STATION
PREDICTS A VOLCANO OR
EARTHQUAKE, THEY GIVE OUT A
WARNING SO PEOPLE CAN
PREPARE FOR A TSUNAMI. TO
PREPARE GET TO HIGH GROUND
BEFORE THE TSUNAMI HITS.
COME OUT OR DOWN FROM
YOUR HIDING PLACE WHEN AN
ALARM OR WEATHER RADIO
STATION TELLS YOU TO. AFTER
THAT TRY TO FIND SHELTER
AND SOME FOOD AND WATER.



Q IS FOR QUAKE

AN EARTHQUAKE UNDER WATER CAN CAUSE A TSUNAMI. THE EARTHQUAKE IS CAUSED BY A SHIFTING IN THE EARTH'S PLATES. OTHER EVENTS LIKE LANDSLIDES AND VOLCANOS CAN ALSO CAUSE TSUNAMIS. TSUNAMIS CAN BE VERY DANGEROUS AND CAUSE A LOT OF DAMAGE.



R IS FOR REBUILD

AFTER A TSUNAMI PEOPLE
WILL HAVE TO REBUILD
CITIES HOUSES AND
TOWNS. A LOT OF
PEOPLE LOST MONEY AND
FAMILY MEMBERS.
AND HOUSES. THAT IS WHY
WE HAVE ENGINEERS TO
HELP BUILD OUR HOUSES.
REBUILDING CAN BE A REAL
PAIN.



S IS FOR SAFETY

WHEN A WEATHER CHANNEL WARNS YOU ABOUT A TSUNAMI YOU NEED TO GET TO HIGH GROUND. IF YOU GET TO HIGH GROUND, YOU WILL BE SAFE. ALSO GET IN A CAR AND DRIVE TO SAFETY. THERE ARE A LOT OF WAYS TO STAY SAFE BUT THESE ARE MOST IMPORTANT.



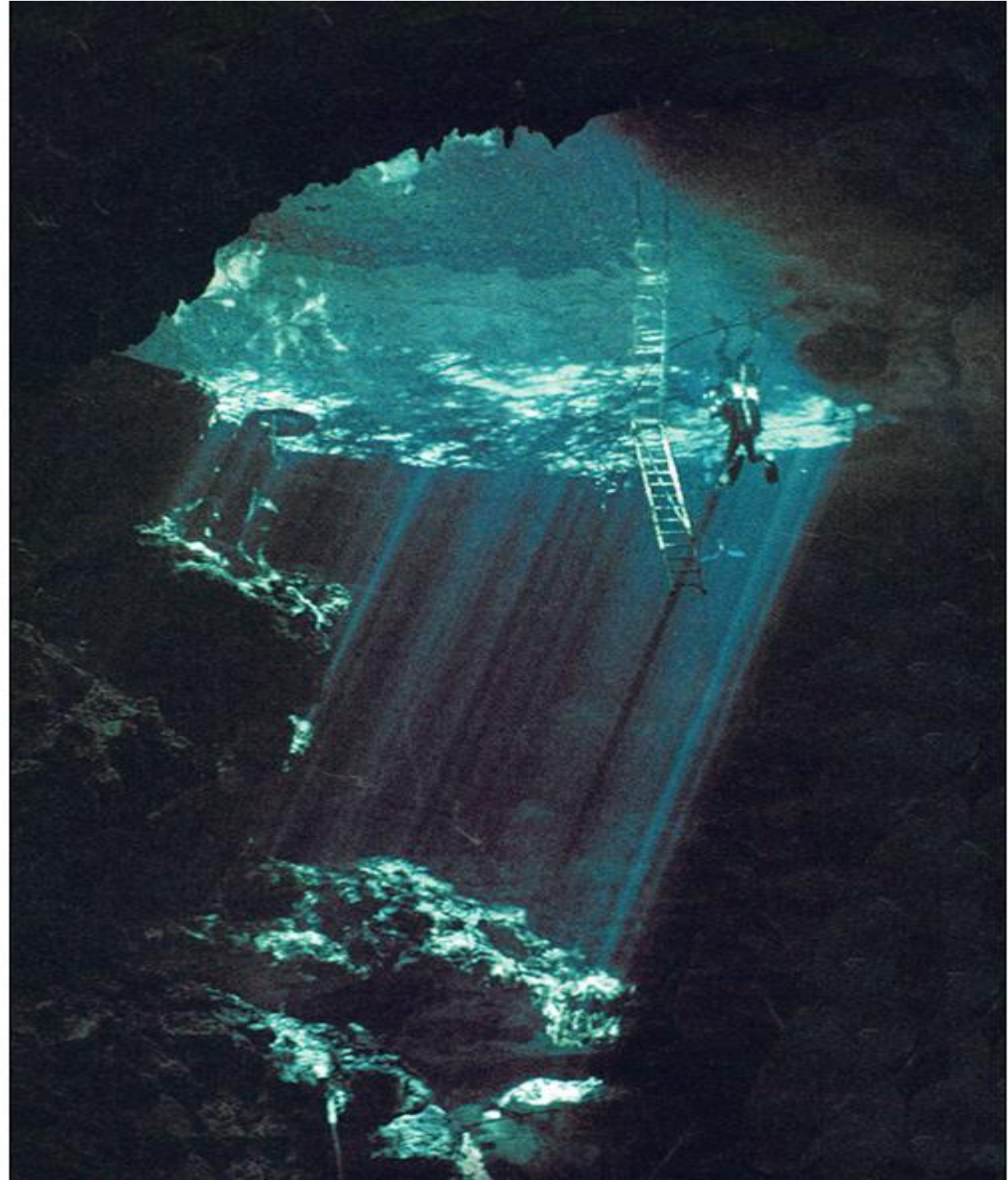
T IS FOR TSUNAMIS

A TSUNAMI IS A GIANT WAVE CAUSED BY VOLCANOS AND EARTHQUAKES. THEY CAN KILL AND DESTROY CITIES AND PEOPLE. THE MOST TSUNAMI HIT COUNTRY IS JAPAN. IT LOSES MILLIONS OF DOLLARS PER YEAR FROM TSUNAMIS. TSUNAMIS ALSO CAUSE SOME DISTRACTIONS DURING IMPORTANT JAPANESE UPGRADES. LIKE WERE UPGRADING OUR MILITARY NEWS: A TSUNAMI JUST IT GREAT NOW WE MUST WORRY ABOUT THAT.



U IS FOR UNDERWATER

WHEN A TSUNAMI HAPPENS YOU NEED TO MAKE SURE YOU DON'T GO UNDERWATER, OR YOU WILL DROWN. IT IS GOOD TO BE AT LEAST CHIN LENGTH OR IF YOU SWIM UNDER WATER IF AN ADULT KNOWS WHERE YOU ARE SO YOU ARE SAFE IF TSUNAMI HAPPENS THE ADULT CAN TELL YOU OR AN ALARM ON AND GET HOME SAFELY. BUT A TSUNAMI CAN HAPPEN AT ANY TIME SO IF YOU SEE ONE GET OUT QUICK. IF IT IS TOO LATE TO GET TO SAFETY TRY TO FLOAT.





Molten lava flows down from the crater of Merapi volcano as seen from Tjibadnan, Central Java, Indonesia, early Friday, Feb. 23, 2001. Although there has been no major eruption, government officials told people living around the 2,968 meter-high (9,794 feet) active volcano be ready for evacuation as it could erupt anytime.

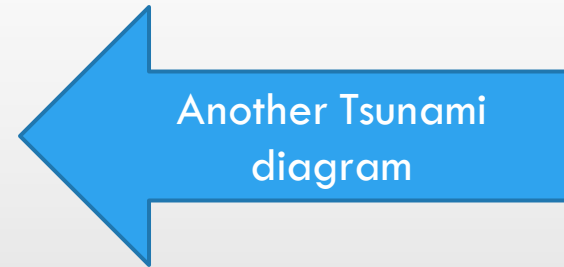
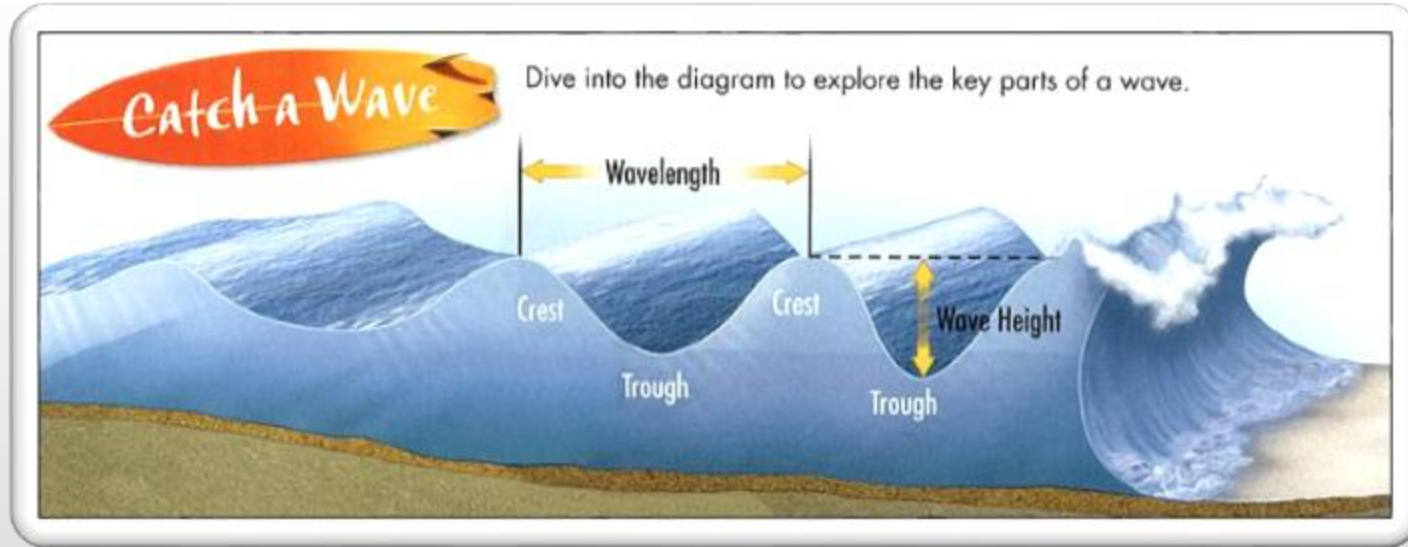
V IS FOR VOLCANO

A VOLCANO CAN CAUSE A TSUNAMI. WHEN A VOLCANO ERUPTS, IT CAN SHAKE THE WATER, **DISRUPTING** THE WAVES AND CAUSING A TSUNAMI. IF THE VOLCANO IS AWAY FROM WATER, THE CHANCES OF IT CREATING A TSUNAMI ARE VERY LOW. SO YOU'D BE LUCKY IF IT DIDN'T FORM ONE.

W IS FOR WAVES

THE WAVES CAN GET BIG WHEN THERE IS A TSUNAMI BECAUSE THE **PRESSURE** FROM THE TSUNAMI WAVE MAKES THEM HUGE. USUALLY THE WAVES STOP WHEN A TSUNAMI IS CLOSE SO IT. IF YOU LOOK OVER THE OCEAN AND YOU SEE A HUGE WAVE THAT WOULD BE A TSUNAMI. BEFORE A TSUNAMI, THE WAVES WILL STOP.





X IS FOR EXTREME

A TSUNAMI IS NO JOKE IT IS VERY EXTREME. IT FEELS LIKE THE ENTIRE OCEAN IS RISING BY THE SECOND. LOTS OF PEOPLE DIE AND IT DESTROYS EVERYTHING IN ITS PATH. IT WILL KILL THOUSANDS OF PEOPLE. ALSO IT WILL FLOOD THE ENTIRE AREA OF WHERE IT HIT.

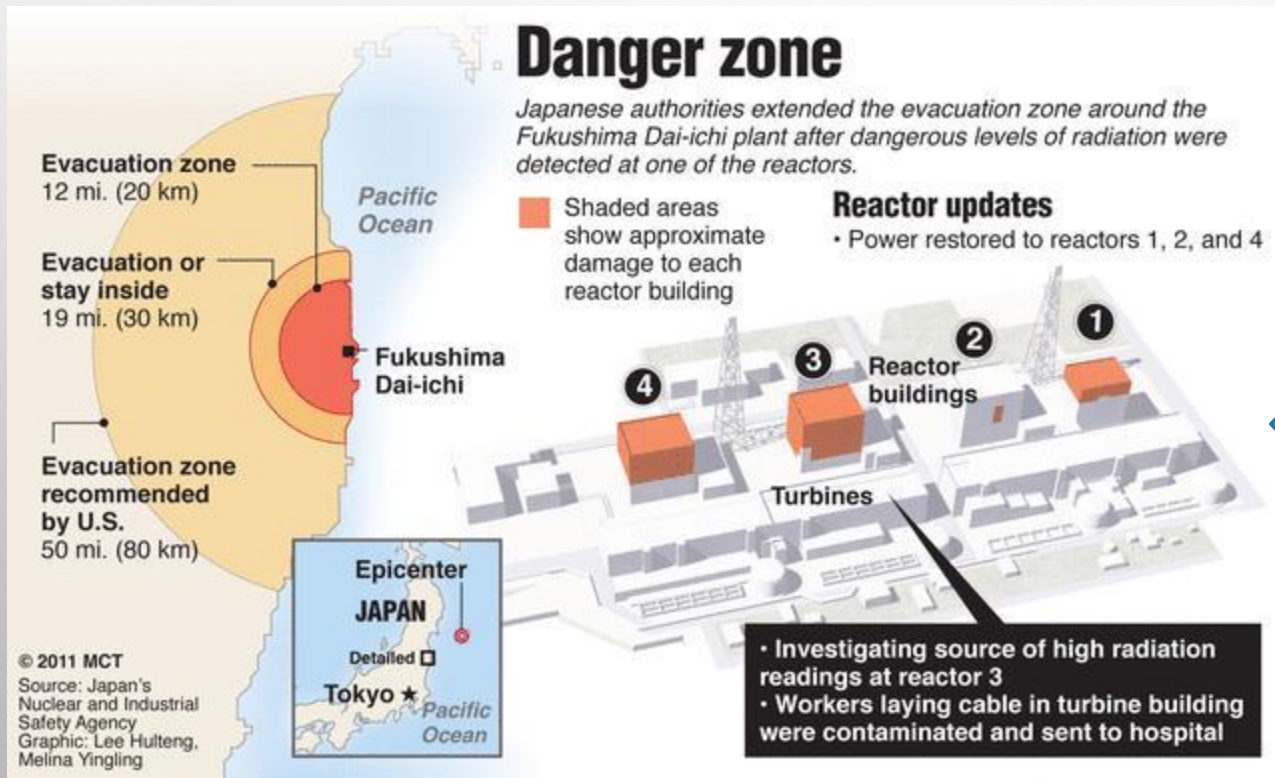
Y IS FOR YOU

- YOU CAN HELP THE COMMUNITY BY CLEANING AFTER A TSUNAMI . THERE WILL BE A LOT OF TRASH EVERYWHERE. HOUSES AND BUILDINGS WILL BE DESTROYED AND SOME THAT SURVIVE WILL NEED REPAIRS. THERE WILL ALSO BE WOOD, AND REMAINS OF STRUCTURES.



Z IS FOR ZONE

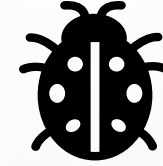
MAKE SURE YOU ARE NOT IN THE ZONE OF THE TSUNAMI, SO YOU DON'T GET HURT. IF YOU SEE A TSUNAMI GET TO SAFETY AND OUT OF HARM'S WAY. EVACUATE OUT OF THE DANGER ZONE AS FAST AS YOU CAN. A TSUNAMI CAN AND WILL DESTROY EVERYTHING IN ITS PATH.



The danger zone of a tsunami



GLOSSARY



A TO Z

Destruction- to destroy or break

Disruption- to disturb

Debris- Remains of fallen buildings and houses

Landslide- A big amount of mud sliding down hills of mountains

Tsunami- A large wave that are caused by volcanos and earthquakes

BIBLIOGRAPHY

- T IS FOR TSUNAMI BY ABIGAIL AND TESS
- FEMA WORKSHEET
- TSUNAMI BY ED YOUNG AND KIMIKO KAJIKAWA
- [HTTPS://EXPLORE.PROQUEST.COM/SIRSDISCOVERER](https://explore.proquest.com/sirsdiscoverer)
- [HTTPS://WWW.USGS.GOV/FAQS/HOW-DO-LANDSLIDES-CAUSE-TSUNAMIS?QT-NEWS SCIENCE PRODUCTS=0#QT-NEWS SCIENCE PRODUCTS](https://www.usgs.gov/faqs/how-do-landslides-cause-tsunamis?qt-news_science_products=0#qt-news_science_products)