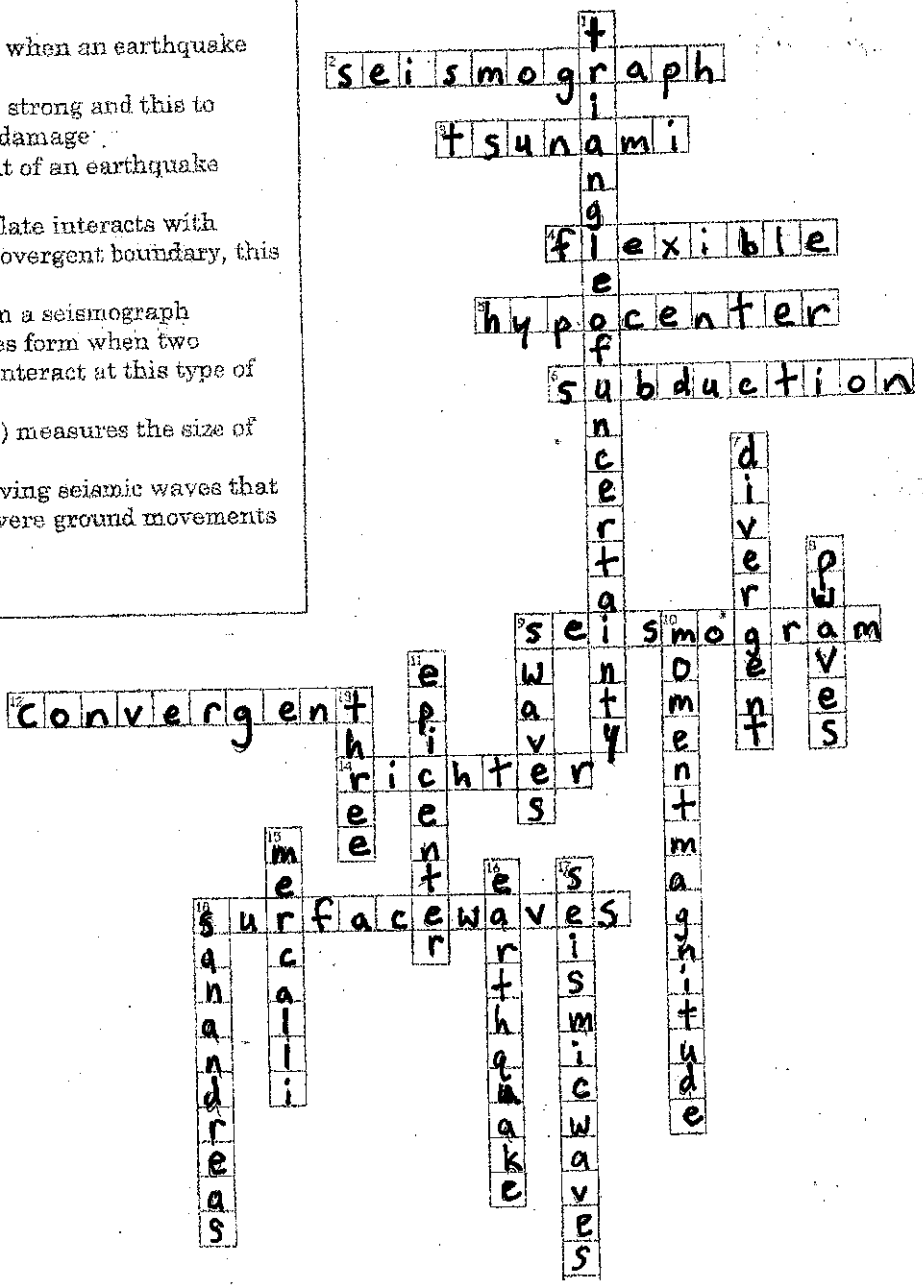
EARTHQUAKE!!!



Across

2. The tool that measures an earthquake's size.
3. These are caused when an earthquake occurs under water.
4. Building must be strong and this to reduce earthquake damage.
5. The starting point of an earthquake BELOW ground.
6. When an ocean plate interacts with another plate at a covergent boundary, this occurs.
9. The printout from a seismograph
12. Mountain ranges form when two continental plates interact at this type of boundary.
14. This scale (1-10) measures the size of an earthquake.
18. The slowest moving seismic waves that cause the moset severe ground movements (2 words).

Down

1. The space of overlap on a map from the seismic stations that contains the earthquake's epicenter (3 words).
7. Sea floor spreading happens at this type of boundary.
8. Seismic waves that compress and expand the ground in a horizontal manner.
9. Seismic waves that move side to side AND up and down.
10. This scale measure the area of the fault that ruptured during an earthquake (2 words)
11. The starting point of a earthquake ABOVE ground.
13. The number of seismic statinos that must report earthquake data in order to determine the starting point.
15. This scale (I-XII) measures the damage caused by an earthquake.
16. When tension is released at a tranform boundary, the resulting movement is felt as this.
17. Earthquake energy is carried through these (2 words).
18. A major earthquake occurred in CA in 1989 along this fault (2 words)

EARTHQUAKE!!

Name:_____

Earthquakes most frequently occur along plate boundaries. However, they can also occur in places where there is volcanic activity. Earthquakes originate under ground at a hypocenter because of plate movement from convection currents. Seismic waves that carry energy from the earthquake eventually reach the surface of the earth. The starting point of an earthquake on the surface is the epicenter. P-waves, primary waves, arrive first and will compress and expand the rock in a back and forth motion, S-waves, secondary waves, are slower but will move the rock up and down in addition to back and forth. The final type of seismic waves, surface waves, are the slowest traveling but cause the most damage since they cause the most ground movement.

Scientists can locate the epicenter using data retrieved from three seismic stations. The triangle of uncertainty is revealed through overlapping circles that show the distance the earthquake originated from the seismic station. People near the epicenter will feel the most shaking of the land and the energy weakens as it travels away. Scientists study earthquakes in order to predict their occurrence and location. They can determine the earthquake's strength using the Richter Scale, the amount of damage caused using the Mercalli Scale, and the total energy based on the changes to the fault using the Moment Magnitude Scale. When earthquakes occur under water, a tsunami can result threatening the safety of people on land!

The state of California has frequent earthquakes due to its location along a transform boundary. When the two plates move quickly past each other, vibrations are felt as earthquakes. Movement at this boundary has also created the San Andreas fault, an example of a strike-slip fault.

B Y T O G C F S K Z R T C S M M M B S U S Z C Z B K E P L D
B O I T A H J U Y Y S O A Y I E T X E S B H K I Q G T T K L
L Q U B M K R I C E Q N W L U V S S V C X N R F A U G F Q Y
B J M N Q L D Y G F A B P V B E I J I A E H P M I X E Y P O
B C B S D E C N F N F D Y M A F T H G W W B A V Q L Y U G F
E N U N K A O P D O O P J P W Q L Y F Z V D X J Q T R P J H
C E C Y W R R R Z R M R Q V C Y S G X N J G I Z X I J Q A B
J K V M T P E I L R K X J N F O L I S J H D K D Q O Z E L Q
M X L S C A U K E E A R T H Q U A K E S I E C U L G W T Y V
I R E O S T R V A S R V I N V P N S C G C L W D U X R Q A G
W T O R G V C J O L X A F G Q Q H R A V Y I U B G J V F F K
F T S F P Q R S T L B B O H K J V C L I Q H M L M Z E C T U
Q U V E S F A U L T C W C E M H Y G I M Q E E S J J D G R K
U P W S N N Q K O X W A K P A E A P F N D U K E I L N V I I
T L J T P X A P U U S C N O S K U Q O M G Z W K W E K K A V
R S B D F A W R A Z W Z X I D H O W R A I L P I L I S N N B
T W O F U Q S H T G P E I G C L M E N Q P D W T H L G D G U
G C V B N G S P R A D K I Y T L M T I V E Q L L J I Z G L C
Z T H H T Q F C A P T S E Q V E D A A G E J B G C E C W E N
K C E A Y P P C U W I M N I F A T P Q R E T H C I R B V F W
S F R B G V I U J U M S B O P D G W I J O C M P A H Z V F K
G T E P Z K S V P A A W A T Y C U X Q V B V E O T E E T S S
K Z T W E P O R F B N P M L O A G H V M G P L I P U H U S I
J U N O V D V F M H U G T M X J I Z Y B Z B Z Q O R H L Y A
W A E V V F Y K M S S L P Z O A A I V R D V W E S A T E D R
F V C M O V E M E N T R F O D Q Q V Y Z G G F B V K M C I P
A I I I K F H B R J E X H E N O Y R E T N E C O P Y H D Z J
Y O P L U F K M I S X N T A U I W J M V J W E H L H D A S N
R W E B A M N A S A M O Z Z L G G N G R X O V V D J I X I T
M R W Y W A O R D V L J I X P A I H K U U V A M H V B Q K D