

# Geologic Faults

## Engage

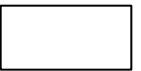
**Materials:** Paper towel and 2 Graham Crackers per student

**What To Do:**

1. Place your palms together and rub them back and forth about 20 times.
2. What do you feel when you do this? \_\_\_\_\_
3. What force caused the heat between your palms? \_\_\_\_\_
4. Place the Graham Crackers side by side on the paper towel.
5. Make sure they are touching each other.
6. Push one of the crackers away from you and pull the other toward you.
7. Describe what happens to the touching edges of the crackers.

8. Draw a before and after picture in the space below.

Dispose of the crackers as your teacher directs.



## Explore

**Materials:** Set of Road and River squares for each student (A and B), scissors, glue, colored pencils

**What To Do:**

1. Color and cut out the two sets of Road and River squares found on the next page.
2. Glue Set A side by side in the space below making sure to line up the bushes, road, and river.
3. Make sure the boxes with the letter A are on the bottom far corners.
4. Write three sentences describing what you observe in the boxes.

### SET A – BEFORE

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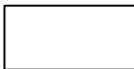
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- 5. Place Set B side by side in the space below and push them slightly in the direction of the arrows.
- 6. Make sure the boxes with letter B are on the bottom far corners.
- 7. Glue them in the space below.
- 8. Write three sentences about what you observe on the lines below.

SET B – AFTER

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Road and River Blocks

- 1. Color the bushes green.
- 2. Color the road brown or black.
- 3. Color the river blue.
- 4. Cut them out.

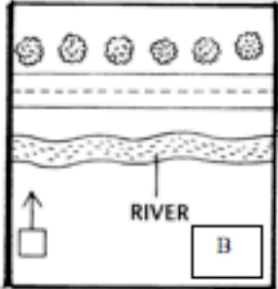
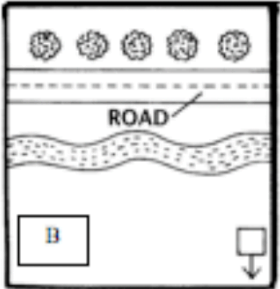
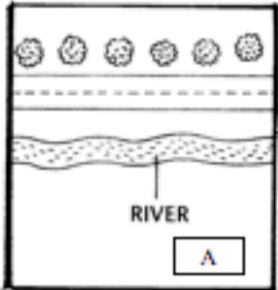


PLATE BOUNDARIES	Explain <span style="float: right;">[ ]</span>  <div style="text-align: center;">FRICTION</div>
	<div style="text-align: center;">GEOLOGIC FAULT</div>
	<div style="text-align: center;">EARTHQUAKES</div>

*Elaborate*

1. Watch the video “G101 Plate Tectonics, San Andreas Fault” found at <https://www.youtube.com/watch?v=g6LVyF1HI9w>
2. Use the Word Bank to help you fill in the blanks.

WORD BANK					
crust	shift	pull	fault	stress	split
earthquakes	run	transform		warping	

1. Plate Tectonics is the theory that says that the Earth's \_\_\_\_\_, is made up of about 15 individually moving pieces, or plates.
2. These produce \_\_\_\_\_, mountains, volcanoes, and the crust itself.
3. As these plates interact, they can \_\_\_\_\_ apart.
4. They \_\_\_\_\_ into each other.
5. When they move side by side it is called \_\_\_\_\_ movement.
6. The San Andreas \_\_\_\_\_ is the division between the Pacific Plate and the North America Plate.
7. If you then look down over here, you can see all of this \_\_\_\_\_ in the rock.
8. All of that warping is because of the \_\_\_\_\_ that happens as a result of the San Andreas Fault passing through here.
9. One day there's going to be an earthquake here, and the pieces are going to \_\_\_\_\_ and move.
10. This piece over here where the Pacific Plate is at is going to head up towards the north and it's going to \_\_\_\_\_ this highway in half.

# Plate Tectonics

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

convection currents  
earthquakes  
hotspot  
Law of superposition  
Super volcano  
Tectonic plates

crust  
fossils  
inner core  
lithosphere  
volcanoes  
friction

mountains  
friction  
mantle  
outer core

Evaluate

Name \_\_\_\_\_ period \_\_\_\_\_

## EXIT TICKET

### Geologic Faults

- Where do most earthquakes occur?
  - in the Atlantic Ocean
  - in the middle of a continent
  - along the edge of a plate boundary
- What causes earthquakes?
  - movement along a fault
  - a tsunami
  - stepping on a fault
- What evidence do scientists look for to determine the location of a plate boundary?
  - lots of rocks
  - no rocks
  - fault lines
- The movement along plate boundaries that are side by side is called -
  - divergent movement
  - transform movement
  - convergent movement
- What type of damage will an earthquake NOT cause?
  - cracks in the earth
  - the movement of roads and rivers
  - wind damage to houses