

## Purple Team Science Out of School Packet

Here is a schedule of the assignments to be completed leading up to the current return date. Links are included.  
**Remember dates are to help with pacing only.**

If you are using Chrome browser and would like to have the text read to you I would recommend the extension Speak It (<https://chrome.google.com/webstore/detail/speak-it/amcnjeimdfilapnfnfnhndhkifadk/related?hl=en>) this will read anything you highlight and tell it to read.

If you have any questions contact me through Livegrades or if desperate you may try my email [eric.eisenbrey@k12.wv.us](mailto:eric.eisenbrey@k12.wv.us)

Day 17 April 20 <sup>th</sup>	Log into BrainPOP using your Clever account. Watch the video and take the graded quiz for <b>“Earthquakes” and “Volcanoes”</b> .
Day 18 April 21 <sup>st</sup>	Complete the Mosa Mack assignment attached. Put your answers into a word doc or take clear pictures of your work to submit.
Day 19 April 22 <sup>nd</sup>	Log into BrainPOP using your Clever account. Watch the video and take the graded quiz for <b>“Mountains” and “Ocean Floor”</b> .
Day 20 April 23 <sup>rd</sup>	Use the links to go to ck12.org and read the text on the Theory of Plate Tectonics and Pangea and answer the questions below the reading, and then send me your answers or record them in OneNote. <a href="https://flexbooks.ck12.org/cbook/ck-12-middle-school-earth-science-flexbook-2.0/section/5.8/primary/lesson/tectonic-plate-motions-ms-es">https://flexbooks.ck12.org/cbook/ck-12-middle-school-earth-science-flexbook-2.0/section/5.8/primary/lesson/tectonic-plate-motions-ms-es</a> <a href="https://flexbooks.ck12.org/cbook/ck-12-middle-school-earth-science-flexbook-2.0/section/5.9/primary/lesson/theory-of-plate-tectonics-ms-es">https://flexbooks.ck12.org/cbook/ck-12-middle-school-earth-science-flexbook-2.0/section/5.9/primary/lesson/theory-of-plate-tectonics-ms-es</a> <a href="https://flexbooks.ck12.org/cbook/ck-12-middle-school-earth-science-flexbook-2.0/section/5.17/primary/lesson/supercontinent-cycle-ms-es">https://flexbooks.ck12.org/cbook/ck-12-middle-school-earth-science-flexbook-2.0/section/5.17/primary/lesson/supercontinent-cycle-ms-es</a>
Day 21 April 24 <sup>th</sup>	Science article summary using the directions below.
Day 22 April 27 <sup>th</sup>	Log into BrainPOP using your Clever account. Watch the video and take the graded quiz for <b>“Plate Tectonics”</b> . Then go to Ck12.org, class code <b>ywuJ8</b> , complete the assigned PLIXs or use the following links to complete them. <a href="https://www.ck12.org/assessment/tools/geometry-tool/plix.html?eld=SCI.ESC.024&amp;questionId=575084bd8e0e080781721d93&amp;conceptCollectionHandle=earth-science---topographic-and-geologic-maps&amp;collectionCreatorId=3&amp;artifactId=2578610&amp;backUrl=%2F%2Finteractives.ck12.org%2Fplix%2Fearth-science%2Findex.html&amp;isBrowsePage=true&amp;_ga=2.65184366.1381252312.1584715014-1066294749.1574285881&amp;plix_redirect=1">https://www.ck12.org/assessment/tools/geometry-tool/plix.html?eld=SCI.ESC.024&amp;questionId=575084bd8e0e080781721d93&amp;conceptCollectionHandle=earth-science---topographic-and-geologic-maps&amp;collectionCreatorId=3&amp;artifactId=2578610&amp;backUrl=%2F%2Finteractives.ck12.org%2Fplix%2Fearth-science%2Findex.html&amp;isBrowsePage=true&amp;_ga=2.65184366.1381252312.1584715014-1066294749.1574285881&amp;plix_redirect=1</a> <a href="https://www.ck12.org/assessment/tools/geometry-tool/plix.html?eld=SCI.ESC.066&amp;questionId=539a13988e0e0834bc6b1ad9&amp;conceptCollectionHandle=earth-science---earths-interior&amp;collectionCreatorId=3&amp;artifactId=1829194&amp;backUrl=%2F%2Finteractives.ck12.org%2Fplix%2Fearth-science%2Findex.html%3F_ga%3D2.169380577.1381252312.1584715014-1066294749.1574285881&amp;isBrowsePage=true&amp;_ga=2.169380577.1381252312.1584715014-1066294749.1574285881&amp;plix_redirect=1">https://www.ck12.org/assessment/tools/geometry-tool/plix.html?eld=SCI.ESC.066&amp;questionId=539a13988e0e0834bc6b1ad9&amp;conceptCollectionHandle=earth-science---earths-interior&amp;collectionCreatorId=3&amp;artifactId=1829194&amp;backUrl=%2F%2Finteractives.ck12.org%2Fplix%2Fearth-science%2Findex.html%3F_ga%3D2.169380577.1381252312.1584715014-1066294749.1574285881&amp;isBrowsePage=true&amp;_ga=2.169380577.1381252312.1584715014-1066294749.1574285881&amp;plix_redirect=1</a> <a href="https://www.ck12.org/assessment/tools/geometry-tool/plix.html?eld=SCI.ESC.313&amp;questionId=5436d1e95aa41317a10ce830&amp;conceptCollectionHandle=earth-science---seismic-waves&amp;collectionCreatorId=3&amp;artifactId=1824078&amp;backUrl=%2F%2Finteractives.ck12.org%2Fplix%2Fearth-science%2Findex.html%3F_ga%3D2.169380577.1381252312.1584715014-1066294749.1574285881&amp;isBrowsePage=true&amp;_ga=2.169529057.1381252312.1584715014-1066294749.1574285881&amp;plix_redirect=1">https://www.ck12.org/assessment/tools/geometry-tool/plix.html?eld=SCI.ESC.313&amp;questionId=5436d1e95aa41317a10ce830&amp;conceptCollectionHandle=earth-science---seismic-waves&amp;collectionCreatorId=3&amp;artifactId=1824078&amp;backUrl=%2F%2Finteractives.ck12.org%2Fplix%2Fearth-science%2Findex.html%3F_ga%3D2.169380577.1381252312.1584715014-1066294749.1574285881&amp;isBrowsePage=true&amp;_ga=2.169529057.1381252312.1584715014-1066294749.1574285881&amp;plix_redirect=1</a> <a href="https://www.ck12.org/assessment/tools/geometry-tool/plix.html?eld=SCI.ESC.318&amp;questionId=5787aa9b5aa4132abd8d89ed&amp;conceptCollectionHandle=earth-science---locating-earthquake-epicenters&amp;collectionCreatorId=3&amp;artifactId=2709637&amp;backUrl=%2F%2Finteractives.ck12.org%2Fplix%2Fearth-science%2Findex.html%3F_ga%3D2.169380577.1381252312.1584715014-1066294749.1574285881&amp;isBrowsePage=true&amp;_ga=2.169529057.1381252312.1584715014-1066294749.1574285881&amp;plix_redirect=1">https://www.ck12.org/assessment/tools/geometry-tool/plix.html?eld=SCI.ESC.318&amp;questionId=5787aa9b5aa4132abd8d89ed&amp;conceptCollectionHandle=earth-science---locating-earthquake-epicenters&amp;collectionCreatorId=3&amp;artifactId=2709637&amp;backUrl=%2F%2Finteractives.ck12.org%2Fplix%2Fearth-science%2Findex.html%3F_ga%3D2.169380577.1381252312.1584715014-1066294749.1574285881&amp;isBrowsePage=true&amp;_ga=2.169529057.1381252312.1584715014-1066294749.1574285881&amp;plix_redirect=1</a>
Day 23 April 28 <sup>th</sup>	Use the links to go to ck12.org and read the text on Plate Boundaries types then answer the questions that match each section, and send me your answers or record them in OneNote.

	<a href="https://flexbooks.ck12.org/cbook/ck-12-middle-school-earth-science-flexbook-2.0/section/5.10/primary/lesson/divergent-plate-boundaries-in-the-oceans-ms-es">https://flexbooks.ck12.org/cbook/ck-12-middle-school-earth-science-flexbook-2.0/section/5.10/primary/lesson/divergent-plate-boundaries-in-the-oceans-ms-es</a> <a href="https://flexbooks.ck12.org/cbook/ck-12-middle-school-earth-science-flexbook-2.0/section/5.11/primary/lesson/divergent-plate-boundaries-hs-es">https://flexbooks.ck12.org/cbook/ck-12-middle-school-earth-science-flexbook-2.0/section/5.11/primary/lesson/divergent-plate-boundaries-hs-es</a> <a href="https://flexbooks.ck12.org/cbook/ck-12-middle-school-earth-science-flexbook-2.0/section/5.12/primary/lesson/transform-plate-boundaries-ms-es">https://flexbooks.ck12.org/cbook/ck-12-middle-school-earth-science-flexbook-2.0/section/5.12/primary/lesson/transform-plate-boundaries-ms-es</a> <a href="https://flexbooks.ck12.org/cbook/ck-12-middle-school-earth-science-flexbook-2.0/section/5.13/primary/lesson/ocean-continent-convergent-plate-boundaries-ms-es">https://flexbooks.ck12.org/cbook/ck-12-middle-school-earth-science-flexbook-2.0/section/5.13/primary/lesson/ocean-continent-convergent-plate-boundaries-ms-es</a> <a href="https://flexbooks.ck12.org/cbook/ck-12-middle-school-earth-science-flexbook-2.0/section/5.14/primary/lesson/ocean-ocean-convergent-plate-boundaries-hs-es">https://flexbooks.ck12.org/cbook/ck-12-middle-school-earth-science-flexbook-2.0/section/5.14/primary/lesson/ocean-ocean-convergent-plate-boundaries-hs-es</a> <a href="https://flexbooks.ck12.org/cbook/ck-12-middle-school-earth-science-flexbook-2.0/section/5.15/primary/lesson/continent-continent-convergent-plate-boundaries-ms-es">https://flexbooks.ck12.org/cbook/ck-12-middle-school-earth-science-flexbook-2.0/section/5.15/primary/lesson/continent-continent-convergent-plate-boundaries-ms-es</a>
Day 24 April 29 <sup>th</sup>	Plate Boundaries activity see details below for how to complete the activity.
Day 25 April 30 <sup>th</sup>	Log into BrainPOP using your Clever account. Watch the video and take the graded quiz for <b>“Geologic Time”</b> and <b>“Relative Dating”</b> .
Day 26 May 1 <sup>st</sup> (This is Friday so just in case.)	Final Article Summary and Nature Observation for the year. Use the formats below and send in through MS Word, email, OneNote, or live grades. Take special note of the nature observation.

***Legends of Learning will have rotating practice use teacher code EISEN2 to get to those.***

## Article Summary

*Source: (magazine or web site name)*

*Article Title:*

*Date of Publication:*

\* one thing that seemed important

? words/phrases you did not understand or would like to know more about

! anything you found surprising or especially interesting

♥ your favorite part

**=B** key part you would share with others about the article

1. Paragraph one Identify the main claim of the article. State what the main claim is followed by a **because** statement. [ex. *The article claimed that climate change is occurring, because average global temperatures have risen by more than 1 degree Celsius over the past 100 years.*] State the main claim again and this time follow it up with a **but** statement. [ex. *The article claimed that climate change is occurring, but even with plenty of data to support the current rise it is not clear what a continued rise will do to the worlds weather.*] State the main claim again and this time follow it up with a **so** statement. [ex. *The article claimed that climate change is occurring, so we should be thinking about ways that we can keep the temperatures from continuing to rise.*]
2. Paragraph two How well was the main idea of the article presented. Did the images and information given make the main idea easier to understand? What worked in the presentation or what could have been done to make the main idea clearer? Was there to little or too much information?
3. Paragraph three is about how the information relates to you. What impact might the information have on your life? Who might the information presented be useful to? What questions did the article leave you with?

## Nature Observations Grading Criteria

Use **ONLY** the pictures below and complete the nature observation.

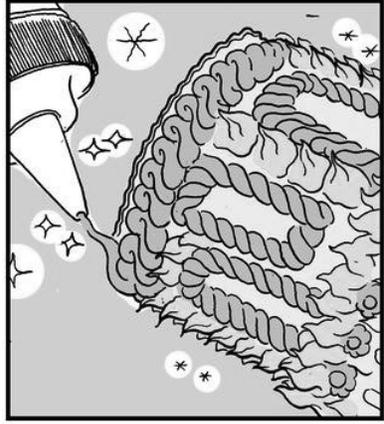
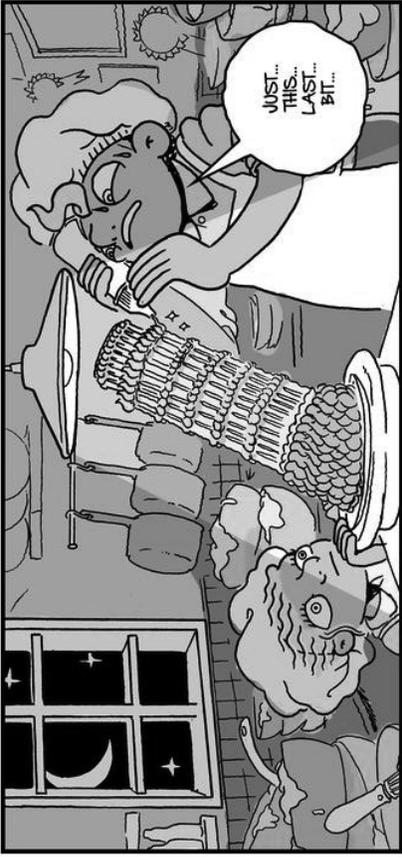
Neat, Legible, well-written paragraph, complete sentences (5 pts) - Can I easily read your nature journal? Is there one complete paragraph? Are the sentences complete?

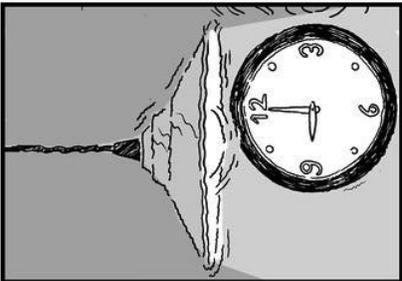
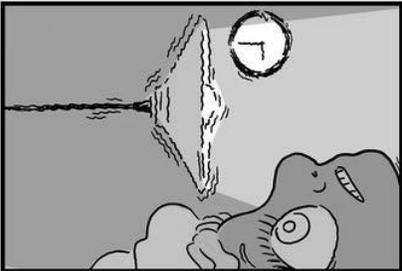
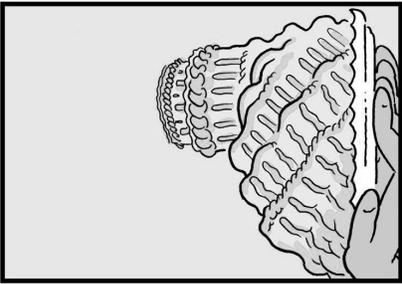
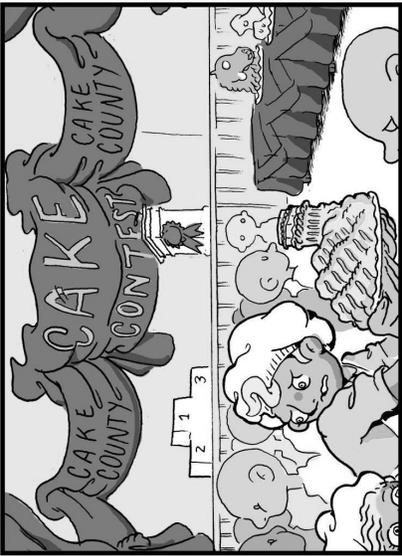
Detailed, specific, Description (5pts) - Have you written a detailed description of the object? Can I read what you wrote and understand what object you are talking about?

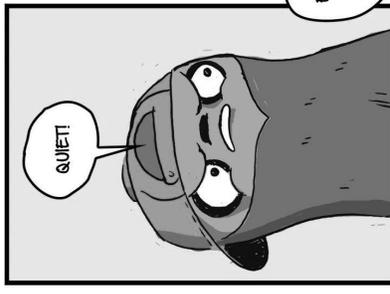
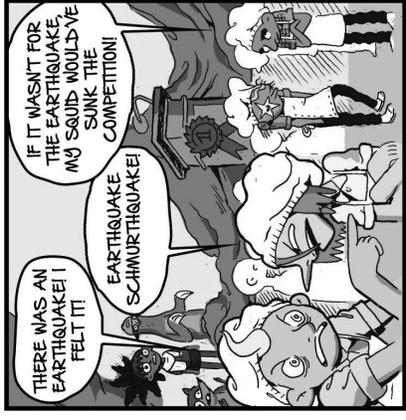
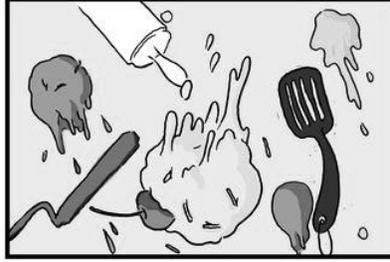
Ten (10) full lines of an observation (5pts) - Are ten full lines completely filled with your observation? Is the observation written from margin to margin? **12pt font 1 inch margins**

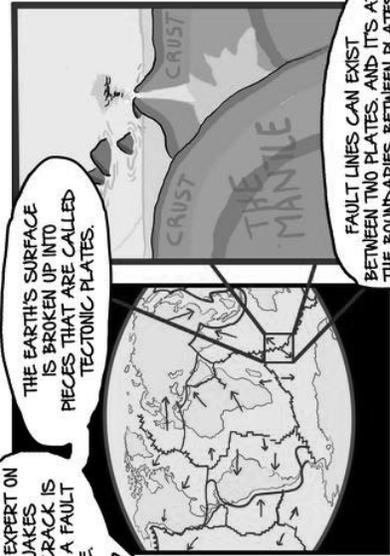
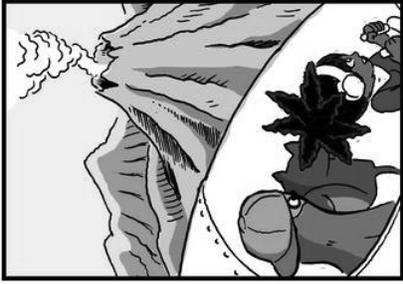
Observed 1 object or interaction during the observation (5pts) - Have you written your observation about only one object or interaction?



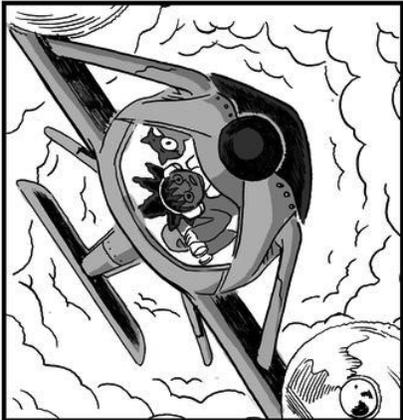


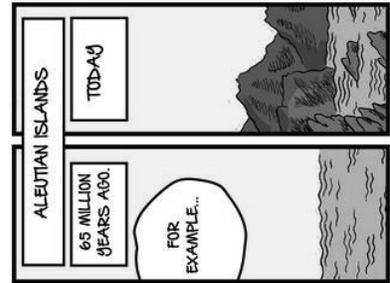
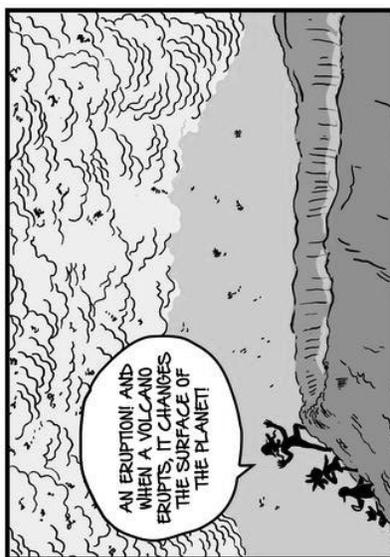
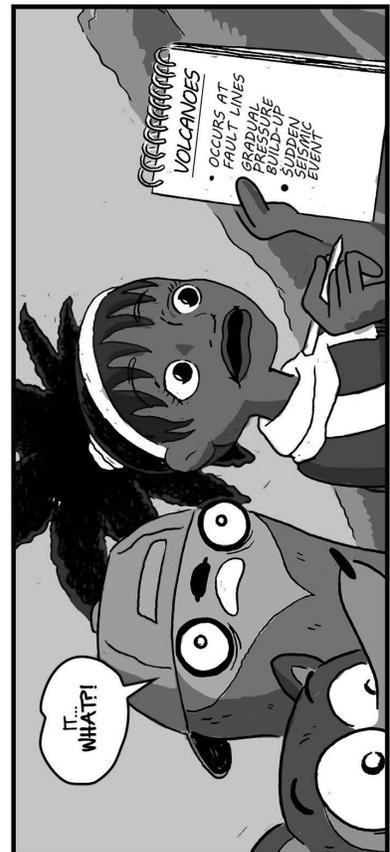
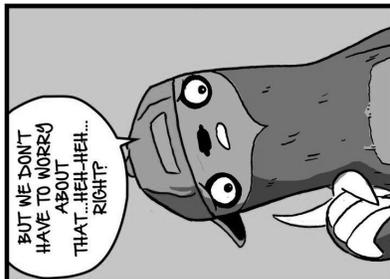


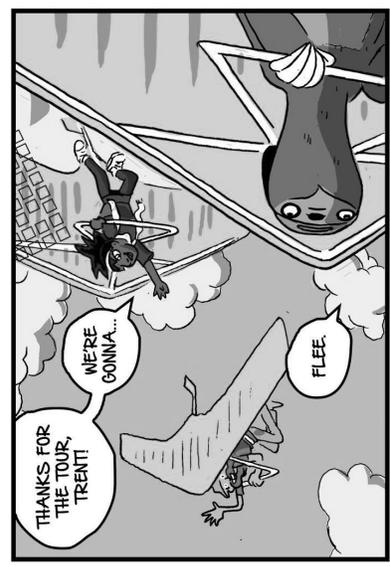
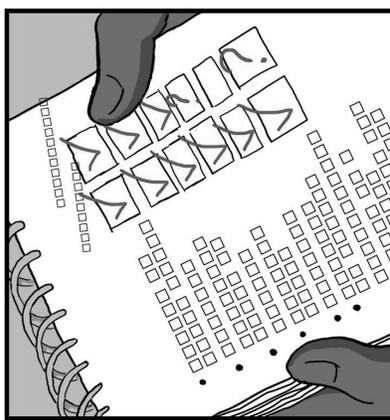
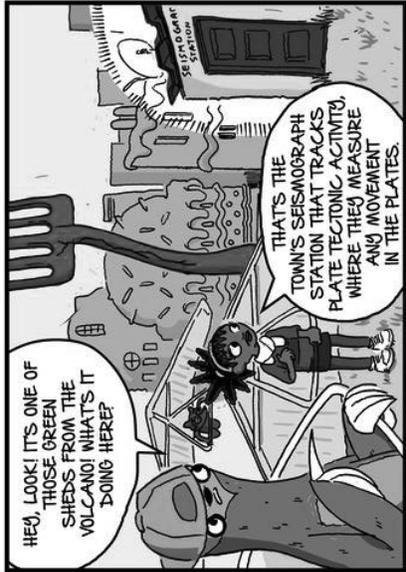
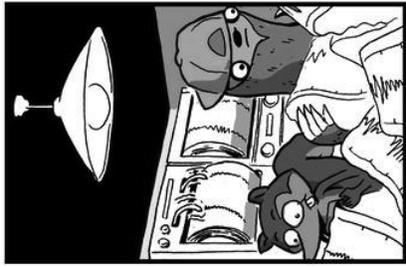




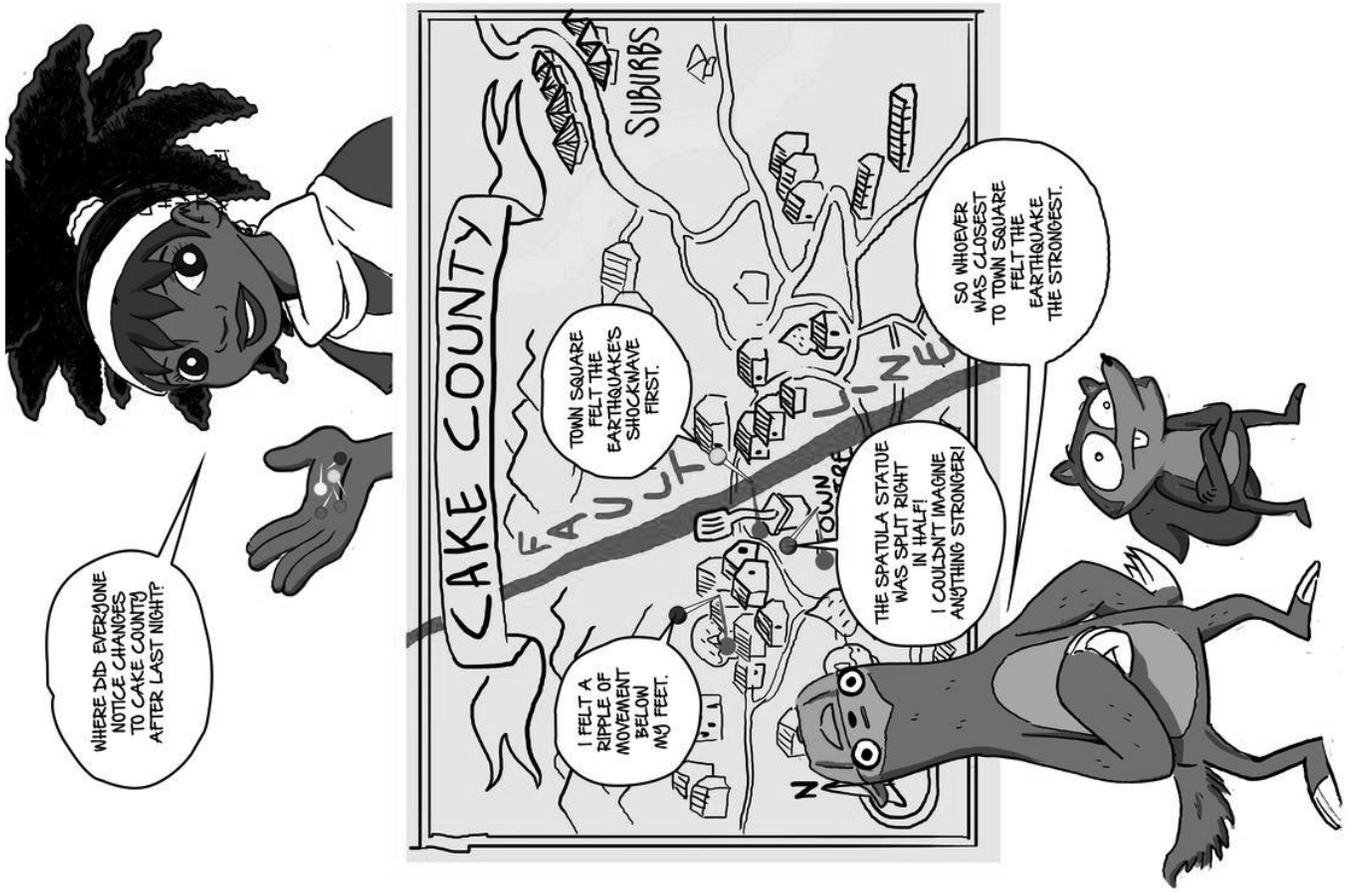
FAULT LINES CAN EXIST BETWEEN TWO PLATES, AND ITS AT THE BOUNDARIES BETWEEN PLATES WHERE MOST VOLCANOES OCCUR.











WHERE DID EVERYONE NOTICE CHANGES TO CAKE COUNTY AFTER LAST NIGHT?

TOWN SQUARE FELT THE EARTHQUAKE'S SHOCKWAVE FIRST.

I FELT A RIPPLE OF MOVEMENT BELOW MY FEET.

THE SPATULA STATUE WAS SPLIT RIGHT IN HALF! I COULDN'T IMAGINE ANYTHING STRONGER!

SO WHOEVER WAS CLOSEST TO TOWN SQUARE FELT THE EARTHQUAKE THE STRONGEST.



SPREAD OUTWARDS? THERE'S NOTHING TO SPREAD.

AAAAAAAAAAAA

VOLCANOES

- OCCURS AT FAULT LINES
- GRADUAL PRESSURE BUILD-UP
- SUDDEN SEISMIC EVENT
- CHANGES SURFACE OF PLANET
- PREDICTABLE
- OCCURS AT A CENTRAL LOCATION AND CAUSES LAVA TO MOVE OUTWARDS

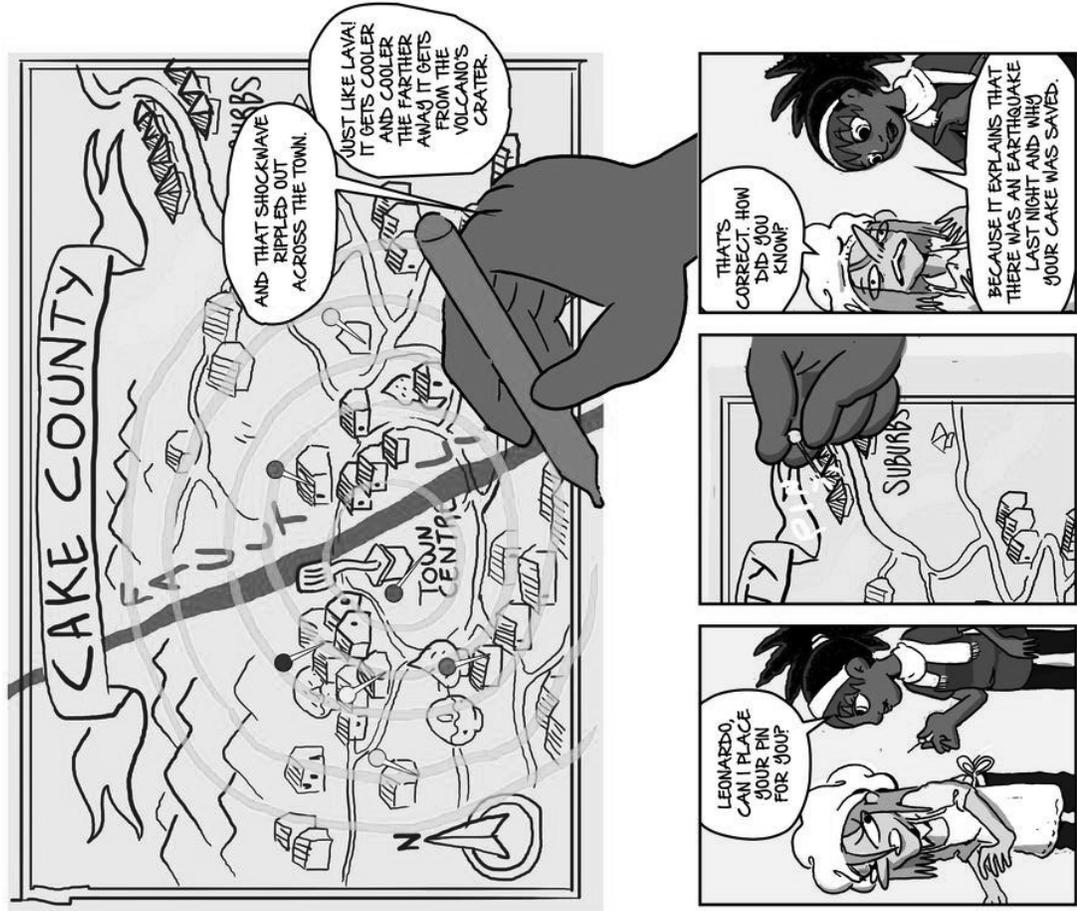


WHAT IF THE EARTHQUAKE STRUCK AT A SINGLE LOCATION AND SPREAD OUTWARDS FROM THERE?



OR IS THERE...

# ...HOW DID MOSA KNOW WHERE LEONARDO LIVED?





# MOSA MACK SCIENCE

## STUDENT GUIDE

### II. Watch Mosa Mack.

Either on your own, in a small group or as a class (your teacher will let you know), read Mosa Mack's comic on Earthquakes and Volcanoes. Then, fill out the questions below. Include a page number in your answer as evidence of where you found your answer.

**Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

#### Episode Questions

1. According to most bakers, what ruined all of the cakes in the contest? Describe what happened.
2. What does Leonardo claim and why?
3. When Mosa investigates the geography of Cake County, what does she find?
4. What does the Volcanologist say the "crack" is? What does this have to do with volcanoes?
5. What causes a volcanic eruption?
6. What do volcanoes have in common with earthquakes ?
7. Mosa proposes that the Earthquake started in one place and spread outward from there. How can this be related to volcanoes? (Hint: look at the list of volcano characteristics).
8. What did Mosa figure out? How did she know the location of Leonardo's house?

## **cK12 Theory of Plate Tectonics and Pangea**

### **Day 20**

#### **Plate Tectonics**

1. Describe how convection takes place in the mantle.
2. How does mantle convection cause seafloor spreading?
3. How does seafloor spreading move plates?

#### **Theory of Plate Tectonics**

1. What is a plate boundary?
2. What three interactions can plates have? These are the three major types of plate boundaries.
3. In general, what does the theory of plate tectonics explain?

#### **Pangea**

1. Describe the plate tectonics processes that brought Pangaea together.
2. Describe the plate tectonics processes that split Pangaea up.
3. Why do scientists think that there will be another supercontinent in the future?

## Tectonic Plate Boundaries

### 5.10 Divergent Plate Boundaries in the Oceans

1. In what direction are the plates moving at a divergent plate boundary?
2. How does a convection cell in the mantle lead to volcanism at the mid-ocean ridge?

### 5.11 Divergent Plate Boundaries

1. How is a divergent plate boundary on land different from one in the ocean?
2. How did continental rifting play into the breakup of Pangaea?

### 5.12 Transform Plate Boundaries

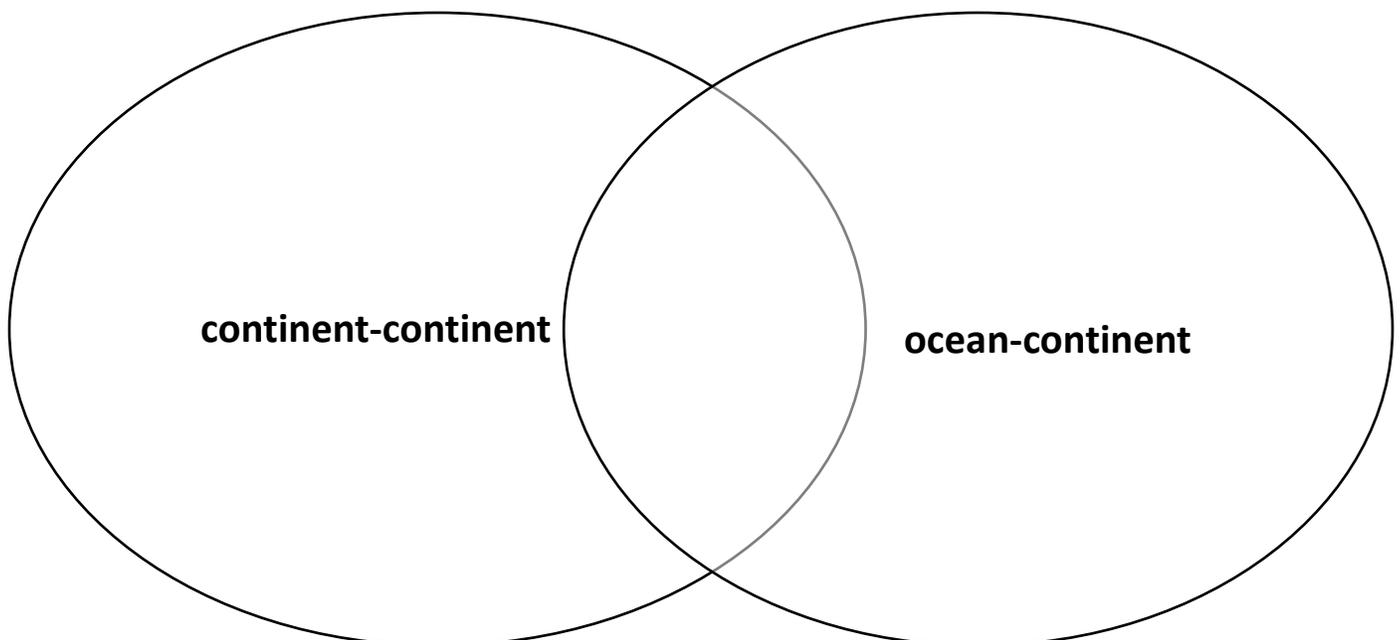
1. What is the direction of plate motion at a transform plate boundary?
2. Why are transform faults prone to massive earthquakes?

### 5.13 Ocean-Continent Convergent Plate Boundaries

1. What is the direction of plate motion at a convergent plate boundary?
2. What creates an island arc?
3. How is a continental arc different from an island arc?

### 5.14 Ocean-Ocean Convergent Plate Boundaries - 5.15 Continent-Continent Convergent Plate Boundaries

1. Compare and contrast these two types of convergent plate boundaries: (1) continent-continent, and (2) ocean-continent.



2. What causes mountain ranges to rise at convergent plate boundaries?

**Plate Tectonics Lab Supplies**



ANY CRAKERS WILL WORK

WHIPPED CREAM WORKS TOO!

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1

**Step 1:**

- Use shaving cream or whip cream and spread it out over your plate with your knife/fork/spoon.



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2

**Step 2:**

- Place two graham crackers side-by-side on top of the shaving cream.



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3

**Questions 1 & 2:**

- 1. What does the shaving cream represent?
- 2. What do the graham crackers represent?

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4

**Step 3:**

- Slide one graham cracker up away from you and the other down towards you.
- Small crumbs/pieces should be falling off.



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5

**Questions 3 & 4:**

- 3. What kind of plate boundary does this represent?
- 4. What type of natural disaster occurs when plates move this way?

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6

**Step 4:**

- Spread the shaving cream out again.
- Put the two graham crackers back together and begin to slowly pull them apart.



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**Questions 5 & 6:**

5. What kind of plate boundary does this represent?
6. What landform is created at these boundaries?

8

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**Step 5:**

- Spread out the shaving cream again.
- Push the two graham crackers towards each other and make one slide underneath the other one.



9

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**Questions 7 & 8:**

- 7. What type of plate boundary does this represent?
- 8. What forms when a plate slides underneath another plate?

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10

**Step 6:**

- Pick up one of your graham crackers and wipe it off with your paper towel.
- Dip part of it in water.
- Place it back on your plate.
- Slowly push the wet and dry graham crackers together.

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11

**Questions 9 & 10:**

- 9. What type of plate boundary does this represent?
- 10. What kind of landform is created at these plate boundaries?

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**Clean Up**

12