

Name \_\_\_\_\_ Date \_\_\_\_\_

## Earth Inside Out Scavenger Hunt

Using the [www.thesciencequeen.net](http://www.thesciencequeen.net) website, go to student resources tab and click on the *Earth Inside Out Scavenger Hunt*.



### Website: Earth's Structure

- The three layers of the earth are \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.
- The crust is \_\_\_\_\_ km thick under the ocean and is up to \_\_\_\_\_ km thick under the continents.
- The two parts of the mantle are \_\_\_\_\_ and \_\_\_\_\_.
- The outer core is made of \_\_\_\_\_ and is \_\_\_\_\_ km thick. Is the outer core a solid or a liquid? \_\_\_\_\_
- The inner core is \_\_\_\_\_ and has a diameter of \_\_\_\_\_.

### Website Mountain Maker, Earth Shaker

- These plates lie above the magma and are moved by the \_\_\_\_\_ of the mantle
- What Are Oceanic Plates? \_\_\_\_\_
- What Are Continental Plates? \_\_\_\_\_
- What are the three types of plate movement?  
\_\_\_\_\_

Plate Movement	Diagram of Plate Movement	Constructive/Destructive (Choose 1 & explain why)	What forms at this boundary?
Divergent	a)	b)	c)
Convergent	d)	e)	f)
Transform	g)	h)	i)



**Website: Build Your Bridge**

*Click on the Quake Country Section at the Top of the page*

10. \_\_\_\_\_ suggested that all the world's continents had been part of a super-continent named \_\_\_\_\_.

11. Where do most submarine tremors occur? (Hint: Drag your mouse over the map.)  
\_\_\_\_\_

12. What two faults (OTHER THAN THE SAN ANDREAS FAULT) pose great earthquake risk to California?  
\_\_\_\_\_

13. Scientists measure earthquakes two ways.

- The Richter Scale measures \_\_\_\_\_.
- The Modified Mercalli Scale measures \_\_\_\_\_.

14. What are the chances the Bay Area will have an earthquake in the next twenty years?  
\_\_\_\_\_

***Click on the Engineering for Earthquakes Section***

Build each type of bridge, and then answer the following questions:

15. How well does a beam girder bridge with shock absorbers withstand a 7.0 San Andreas quake?  
Explain your answer.  
\_\_\_\_\_  
\_\_\_\_\_

16. How well does a cantilever bridge with shear links withstand an 8.2 San Andreas quake?  
Explain your answer.  
\_\_\_\_\_  
\_\_\_\_\_

17. How well does a suspension bridge with cable stays withstand an 8.0 San Andreas quake? Explain your answer.  
\_\_\_\_\_  
\_\_\_\_\_

18. How well does a steel arch bridge with ductile materials withstand a 7.5 Hayward quake? Explain your answer.

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19. Out of all the bridges; please explain which bridge (and which added safety bridges) was able to withstand the strongest quakes best.

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**Website: Plateology**

Click on a red dot to explore a volcano, earthquake or hotspot. Fill out the chart below:

<b>Location</b>	<b>What happened there?</b>	<b>Plate movement</b>	<b>What plates were involved?</b>



20. What two earthquakes were caused by two plates sliding past each other?

\_\_\_\_\_

21. What two plates are sliding apart to form the island Iceland?

\_\_\_\_\_

22. Name two examples (locations) of volcanoes forming in the middle of a plate?

\_\_\_\_\_

23. How fast does Mt. Everest grow per year? \_\_\_\_\_

24. How many active volcanoes are in Japan? \_\_\_\_\_

**Website - Worst Earthquakes in US History**

25. What was the worst earthquake in US History? \_\_\_\_\_

How many perished & by what ? \_\_\_\_\_

26. How many tsunamis have made the US worst earthquake list? \_\_\_\_\_

27. What was the world's worst earthquake disaster? \_\_\_\_\_

28. In Arizona in 1887, how much damage did an earthquake do to Tucson?

\_\_\_\_\_

29. When was the largest earthquake in Arizona? \_\_\_\_\_

30. When was the last earthquake in Arizona? \_\_\_\_\_