

Summer Week 5 Geography

Lesson 2

Can I identify which parts of the USA are vulnerable to earthquakes and why?

Fast Five (answers on the next slide)

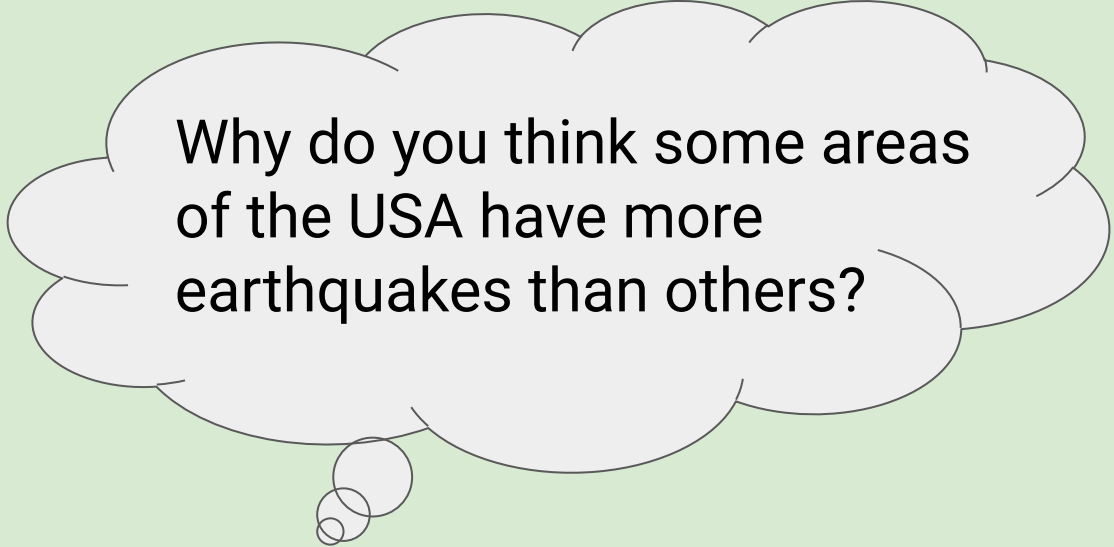
- 1) Name 2 natural disasters that occur in the USA.
- 2) What is the name of the place where a lot of tornadoes happen in the USA?
- 3) What causes an earthquake?
- 4) What causes a tsunami?
- 5) Describe the damage that a strong earthquake could do to a town or city.

Fast Five Answers

- 1) Name 2 natural disasters that occur in the USA. **Tornadoes; hurricanes; earthquakes; volcanic eruptions.**
- 2) What is the name of the place where a lot of tornadoes happen in the USA? **Tornado Alley.**
- 3) What causes an earthquake? **When the earth's tectonic plates bump into each other or slide next to each other.**
- 4) What causes a tsunami? **When there is an earthquake deep under the ocean.**
- 5) Describe the damage that a strong earthquake could do to a town or city. **A strong earthquake could make buildings or bridges fall down; cause water and gas pipes to explode; and could cause roads to crumble.**

Today we are going to learn which parts of the USA are more likely to have earthquakes.

Thinking back to what you learnt in the last Geography lesson about what causes earthquakes, try to answer this question:



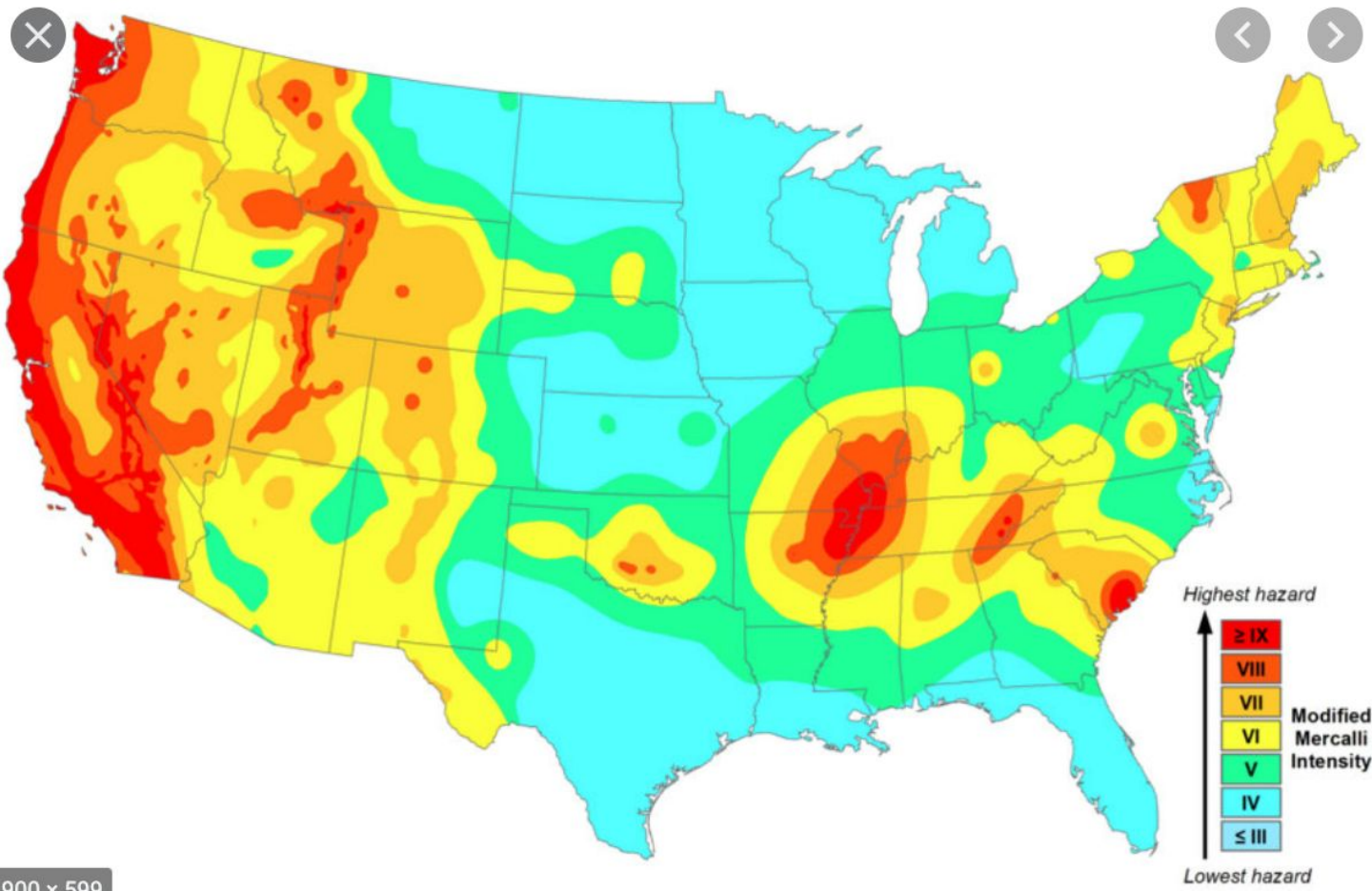
Why do you think some areas of the USA have more earthquakes than others?

Why do you think some areas of the USA have more earthquakes than others?



The earth is made up of *tectonic plates* that fit together a bit like a jigsaw puzzle. There are some places in the USA that are right on the edges of those jigsaw pieces, so they are right on top of where those *plates* bump and slide into one another. We know this is what causes earthquakes, so if you live near one of these fault lines, you will experience more earthquakes.

This is a map of where earthquakes happen in the USA.



Areas that are red have the most risk of experiencing earthquakes.

Orange and yellow areas have a lower risk.

Green and blue areas have a very small risk.

If I show you a map of tectonic plates in the USA, where do you think you would find a **fault line**?

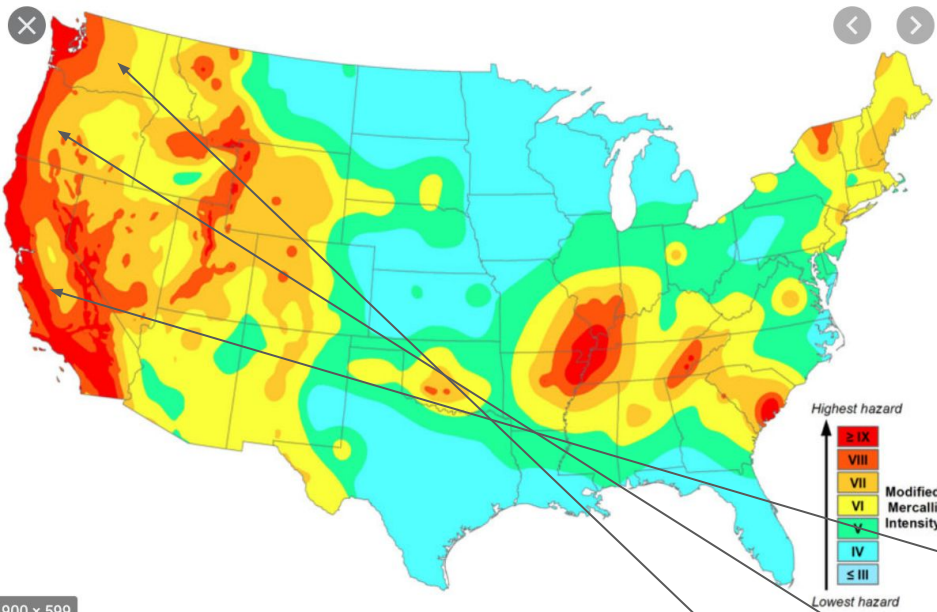
Look at the line between the Pacific Plate and the North American Plate.

Where is the fault line?

The fault line between the Pacific Plate and the North American Plate goes along the western coast of the USA.

If you look at the previous slide, you will see how this line lines up with the biggest area of red on the map of the USA.





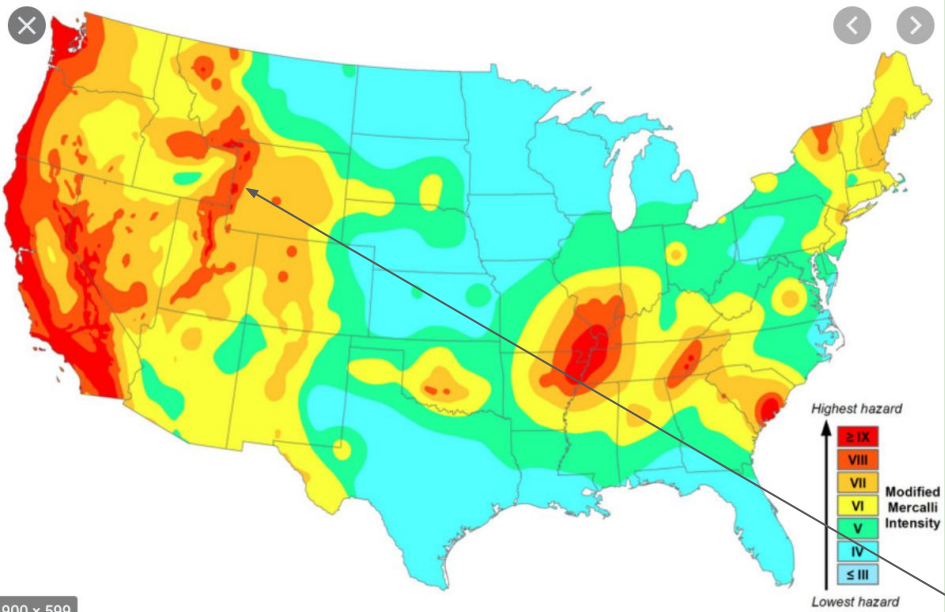
The USA is broken up into states. The states that are most likely to experience earthquakes are along the western coast. These are:

California

Oregon

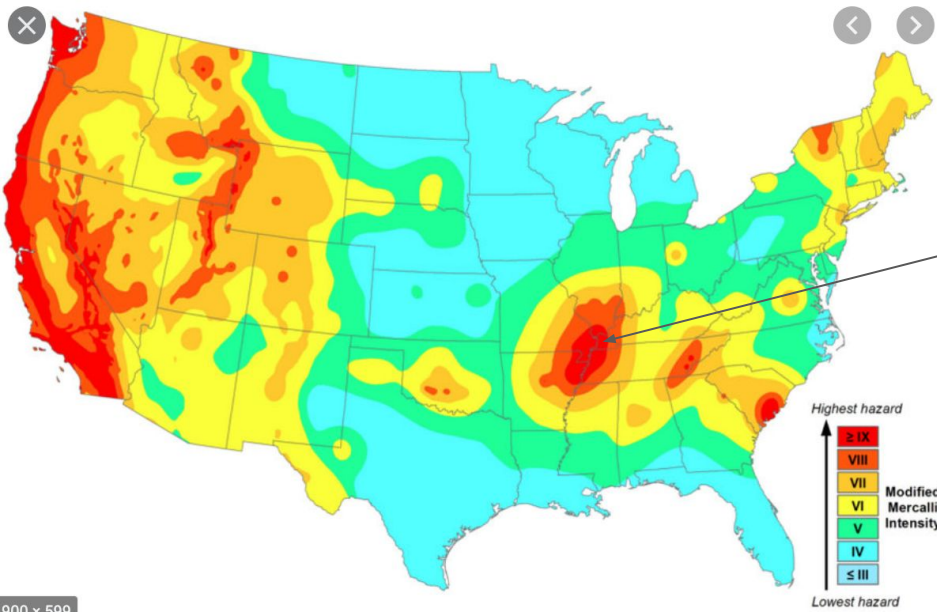
Washington





There is also some other areas of red and orange on the map.

If you look just to the left of the west coast where there is the long line of red, you will see a smaller area of red. This is roughly where Yellowstone National Park is, which is a supervolcano. It has a lot of seismic activity, however most of the earthquakes are not strong enough to notice them.



There is also some other areas of red and orange on the map.

The circular area of red and orange in the central-eastern part of the USA is an area that experiences seismic waves from earthquakes that happen elsewhere. Scientists think these earthquakes are strong here because the rocks are older and cannot absorb as much of the shock as rocks in western USA.

Your activities:

Create a leaflet informing people about earthquake activity in the USA. If you need to, read back over yesterday's slides too.

Red: Fill in the gaps in the paragraphs with the words in the key box.

Yellow: Use the key questions under each subheading to write a short paragraph.

Green: Use the subheadings given to write short paragraphs for your leaflet.

When you are finished writing your paragraphs, you can create a front cover for your leaflet. We would love to see the finished products, so email them to us if you'd like!