

AM Activities

Map with G.I.S. 7

Names: _____

ArcGIS Online

You are able to log in to your class account from ANY computer that is connected to the Internet. Just use the information below to load in the web site:

URL: arcgis.com (then click "Sign In")

Username: _____

Password: _____

Movie 1: Plate Tectonics

There are 3 main types of boundaries; identify them, and explain what happens for each:

Type of Plate Boundary	What Happens to the Plates?
Convergent	They are coming together
Divergent	They are spreading apart
Transform	They are sliding past

What observations can you make about the plate buffer zone, and the mountain chains of the earth?

For the most part, mountain ranges form just outside the buffer zone (200 km from the boundary). They appear to follow the shape of the plate boundary, on the plate that is "on top".

Movie 2: Fault Lines

On a scale of 1 - 5 (5 being a higher probability), rate each City as likely to have an earthquake:

Toronto	①	2	3	4	5	why?: not near any fault lines
Quebec City	1	2	③	4	5	why?: very close to a fault line, but far from a boundary
Vancouver	1	2	3	4	⑤	why?: close to a fault line, and close to a boundary
Tokyo	1	2	3	4	⑤	why?: close to a fault line, and close to a boundary
Paris	1	②	3	4	5	why?: close to a small fault line, but far from a boundary

Movie 3: Volcanoes

Looking around the earth, what can you say about:

Type of Plate Boundary	Number of Volcanoes			Size of Volcanoes <i>(circle as many as apply)</i>			
Convergent	Few	Some	Many	Small	Medium	Large	X-Large
Divergent	Few	Some	Many	Small	Medium	Large	X-Large
Transform	Few	Some	Many	Small	Medium	Large	X-Large

What observations can you make about the plate buffer zone, and volcanoes?

For most cases, the volcanoes are within, or very close to the buffer zone (200 km from boundary).

Movie 4: Earthquakes

Looking around the earth, what can you say about 1997-2007 earthquakes:

Type of Plate Boundary	Number of Earthquakes			Magnitude of Earthquakes		
Convergent	Few	Some	Many	Mostly Small	Mixed	Mostly Big
Divergent	Few	Some	Many	Mostly Small	Mixed	Mostly Big
Transform	Few	Some	Many	Mostly Small	Mixed	Mostly Big

What observations can you make about the plate buffer zone, and earthquakes from 1997-2007?

For most cases, the quakes are within, or very close to the buffer zone (200 km from boundary).

Movie 5: Real-Time Earthquake Data

Looking around the earth, what can you say about recent earthquakes from the past 30 days:

Type of Plate Boundary	Number of Earthquakes			Magnitude of Earthquakes		
Convergent	Few	Some	Many	Mostly Small	Mixed	Mostly Big
Divergent	Few	Some	Many	Mostly Small	Mixed	Mostly Big
Transform	Few	Some	Many	Mostly Small	Mixed	Mostly Big

What observations can you make about earthquakes and the plate buffer zone vs. fault line buffer zone?

There seem to be more quakes in the plate buffer, than in the fault buffer; as before, the vast number of earthquakes happen within, or very close to, either buffer zone. The quakes in the plate buffer are generally larger than in the fault buffer.