

Note:
Write #5 + 14
on overhead ahead,
turn on at appropriate
points in video.

@ 1993
26 minutes
main library

on
computer
in
google
drive

Name: Key

Where Terranes Collide

1. Cordilleran - the name given to mountains of western ^{Canada} N. America
2. The story began 1700 million years ago and continues today.
3. What is happening at the Juan de Fuca ridge?
new crust created as ridge spreads & magma flows up
4. The Juan de Fuca ridge is moving toward us at a rate of 4cm/yr and is subducting
beneath the North American continent. (Same rate as fingernails grow)
5. If the earth's history is a 24 hour clock, until 2:30 pm was taken up by the
formation of the atmosphere, oceans, continents, ^{life,} supercontinent
In the last 1,700,000 ⁰⁰⁰ years break up of ^{supercontinent} ~~supercontinent~~, formation
of western Canada, lots of life ^(N.A.) occurred. pause given
What appeared 3.5 million years ago (8 minutes to midnight)? ancient humans
6. Over 950 million years, sediments accumulated to a depth of > 10 km thick.
7. How are mountains like old hotels?
constructed out of material formed at one time then
put together (folded up) at a later time pause
8. North America separated from Australia and Antarctica. 750 my ago
(different super continent)
9. The climate at the western edge of North America at the time was warm, tropical (like Bahamas)
10. Coral reefs from the tropical seas (now in Alberta) contain oil & gas. (discovered in 1946)
11. Petroleum is formed from decomposed marine animals.
12. The Banff mountains are made of limestone (carbonate strata)
13. What was the edge of the North American continent 180 million years ago?
(Pentichon) Salmon Arm, (Prince George)

14. Terranes = pieces of crust which preserve unique geological history,
different than other adjoining terranes pause

15. The formation of the mountains of ^{Western Canada} North America started 200 million years ago.
Four terranes amalgamated into the intermontaine superterrane
Then the whole thing thrust into the coast of N.A.

14.75
traumatized rock

16. Ominica belt - formed from heat & pressure of collision.
type of rocks metamorphic & igneous

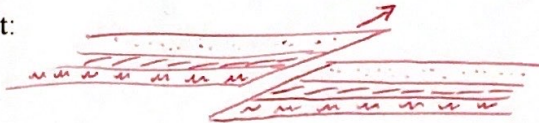
near Revelstoke

17. ^{160 and 100 my ago} A second collision with North America by the insular superterrane formed
the Coast mountains which are made up of igneous & meta. rocks.

18. The main effect of these two main collisions was the formation of the Rockies (& foothills)

19. Mt Rundle (part of the Rockies) was formed by a thrust fault.

20. Draw a thrust fault:



pause

21. Erosion has dramatically changed the look of the Rockies.

22. The last ice age began 80,000 years ago.

23. How did "The Big Rock" get there? carried there by a glacier
It is an erratic.

24. Mt Garibaldi is formed how? subducted Juan de Fuca plate melts (150km down)
and melted rock rises through N.A. plate forming volcano.

25. North America will eventually collide with Asia.

24 min