Geology: Accreted Terrane

Exercise: 1

Instructions: Most of the rock west of the Idaho batholith was formed from oceanic or island arc assemblages. These rocks were accreted or pressed to North America between the Late-Triassic and the Mid-Cretaceous time. This means that before Jurassic time, the West Coast of North America was situated near Riggins, Idaho. This exercise will show what can happen to the landscape over long periods of geologic time as plates in the earth's crust collide and surface features are pushed together. Answer the following questions using the Information you have learned.

1. Look at the map on the main page. Where was the West Coast of North America before the Jurassic time period?

2. How has the coast moved from its previous position to its present position?

3. What does the Suture Line represent? What does the strontium isotope ratio have to do with this line?

4. What kinds of fossils have been found in the Oceanic Crust terrane? What does this tell us about where the Oceanic Crust terrane came from?

5. How was the Jurassic Flysch terrane formed? What evidence supports this explanation of how it was formed?

6. How was the Continent Island Arc Juncture, or suture zone formed?

7. What is the Idaho Batholith and how was it formed?

8. How are the four smaller terranes separated from each other? How do we recognize the boundaries between them?