

# Focus on the Fraser - Key

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### 1. Fraser River Watershed (Drainage Basin):



a. Define watershed/drainage basin.

area of land that water drains from into a river

b. Look at the map above and list the main rivers in the Fraser River watershed (from near Jasper to Vancouver).

Nechako River, West Road River, Chilcotin River, Quesnel River, Thompson River

c. Explain why the Fraser only flows west and not east as well. (Use the words "continental divide" in your answer.)

The continental divide in the Rockies is the line btwn water that flows east and west (Fraser)

d. What shape of valley would the Fraser River be carving as it passes through the mountains? Describe/illustrate the process to form this type of valley.

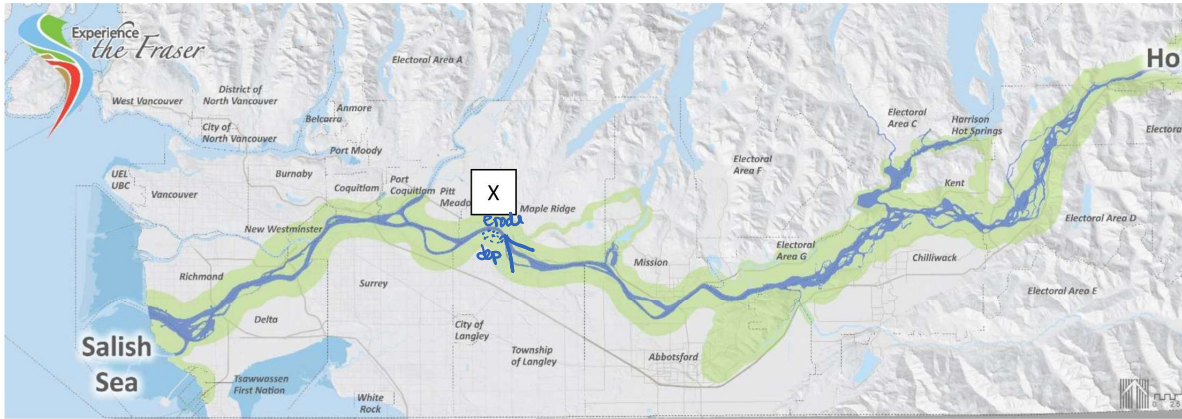
V-shaped valley - as water cuts down, it undercuts sides which slide into valley

e. How do you think a waterfall could form? What is a plunge pool?

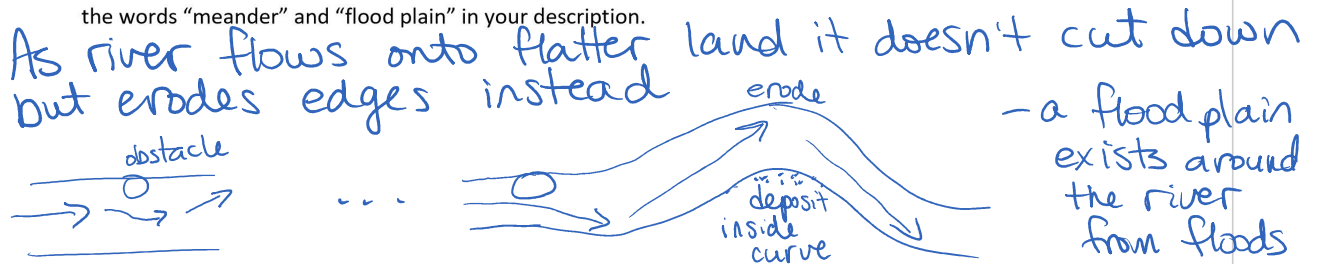
- plate motion along fault or hanging valley made by a glacier

- plunge pool - rounded out area @ bottom of waterfall due to erosion

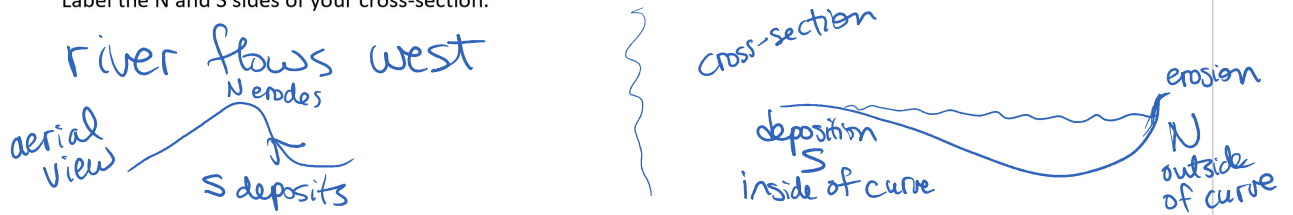
2. Lower Fraser Valley:



a. Notice how the Fraser River curves as it passes through the lower mainland. Explain/draw how this happens. Use the words "meander" and "flood plain" in your description.



b. Draw the cross-section of the Fraser River that would be located directly south of the "X" on the map above. Label the N and S sides of your cross-section.



c. Draw the cross-section of the Fraser River in the lower mainland where it is flowing straight.



d. What are Richmond and Delta built on? How do features like this form?

The Fraser River Delta - forms as river reaches still ocean water and drops the sediment it is carrying

3. Define the following:

a. stream capacity – maximum amount of load a stream can carry

b. stream discharge – volume of water moving down a stream per unit time

c. gradient – the steepness of the slope

d. stream speed (Where would it move fastest if everything else were the same?) –

move fastest on steeper gradient assuming same discharge

e. stream load – the solid material a stream carries (bed, suspended, dissolved)

4. How does a river erode rocks? What characteristics of the rocks would be important to consider? Also, use the terms about streams from #3 in your answer for #4.

– erodes due to:

- water causes chemical changes to minerals in rocks
- sediments (load) causes mechanical breaking of rocks in/under stream (bumping)

– weaker rocks erode faster (sed. weakest)

– larger capacity, larger discharge, steeper gradient and larger load will all cause more erosion