

Lesson Plan Constructed from Attendance
 The 2006 Earth Science Teachers
 Summer Field Workshops
 by Jim Wilcox

Student Background: View and discuss The
 Bonneville Flood Slide Show

View and discuss The DVD
 from The IESTA 2006
 Summer Workshop - Clark Fork Area
 of Idaho About the Missoula Flood

Objectives: Describe + Observe Differences
 between The Bonneville Flood and
 Missoula Flood For The Following

You May want to do The lab first with The
 Stream Table; After some discussion, Give some
 hints on Construction and make it more open-ended

	Similarities	Differences
Underlying Stratigraphy	Over thrust - Both	B - Paleozoic M - Precambrian Belt
Flood Causes	Glacial Water	B - Glacier Block M - Soft erosive Rock
Flood Speed	Very Fast	B - 120 mi/hr ³ M - 65 mi/hr 8 wks
Flood Frequency		B - One-time Event M - Several -
^{Back} Flood Water Coverage	Large As A Great Lake	B - 23,000 sq miles M - 3,000 sq miles
Evidence	Massive Displaced Rocks Both Found in Lawson Quarry Stratums	B - Terrace Canyon Gorges M - Scablands - Course B - Large Volcanics M - Fine Grains
Depth		B - 427 feet M - 2000 feet

Discharge

Similar
Large Amounts

Difference
B 1140 cubic mi
M 528 cubic miles

Discharge Rate

Very fast

Cubic feet
B 33,024,200/mi
M 752,316,000
Cubic ft/mi

Scientists who first ~~studied~~ discovered the events

Both viewed very quickly

B. Gilbert 1878/1890
"Melan Rocker"
M. Bretz - 1923
"Scablands"
Malde - 1968

Remnant features

Deepened Canyons
B Snake River
M Columbia
Erratics

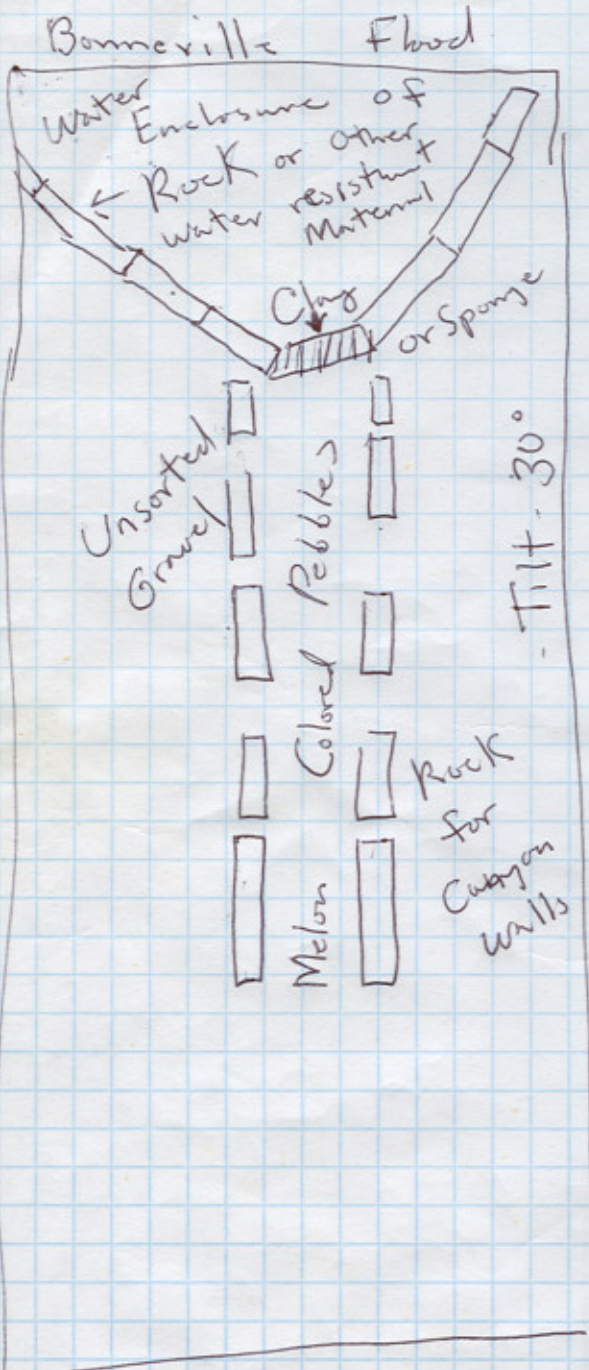
B. Deepened Canyons
Cataracts
Scour

Age of Events

Overlap at Lewiston Quarry

M. Scablands
M First One 17,000? - last 13,000
B. H₃ Dating 14,400 yrs + or -

Stream Table Lab



One Suggested Setup in The Stream table: Questions - Make a before and after Aerial view Drawing or take a picture.

Video - The entire Sequence
 Example of question: Any examples of melon Rock Scablands, Sub glacial tunnels, Ripple marks,