

Unit 4: FLOODS-FLOODS HAPPEN

EXTENSION ACTIVITY

FLOODS COMPUTER LAB

ACTIVITY DESCRIPTION

Floods become a reality in this computer activity. Local websites contain compelling images and content that help demonstrate the drama and reality of local floods. This computer extension activity is for classes that have access to computers or have students that are able to complete homework on computers.

my time

45 minutes to 1.5 hours

my materials

Computer Lab

essential questions

- What is a flood?
- Where have floods hit Boulder County in the past?
- Who would most likely be affected today by floods?
- How can students research historic photos?

lifeskills

In this activity, students manipulate computer imaging, utilize their research skills, learn how to compare and contrast historical data and explore floodplains, including where they are, what's located in them, and associated issues.

directions

PART 1

Comparison of Historic & Present Day Images — Flooding Impacts & Implications

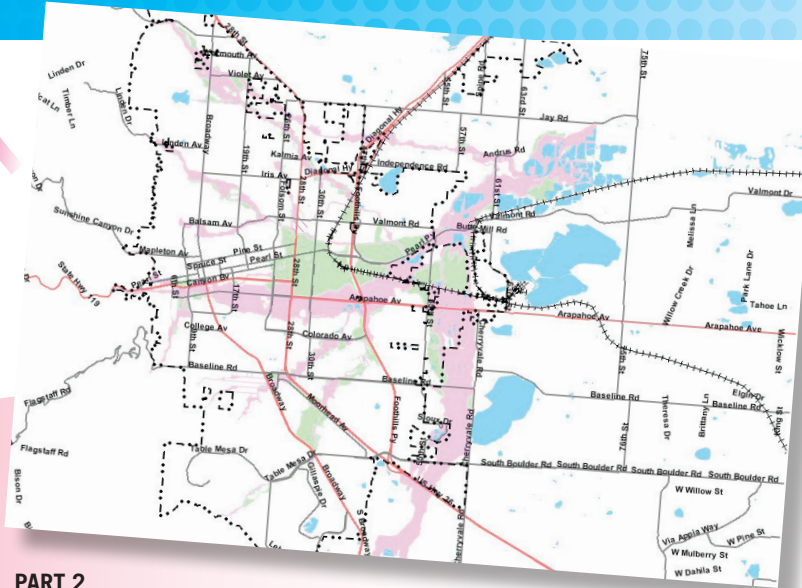
This is an easy exploration using historical archived photo of Boulder and a Google Earth map of the local area. Students compare and contrast the local geography in the 1800s to today's and discuss land use implications on flooding, including surface run-off, land configurations and more.

- Start with the photo on the right. This is the corner of present-day Broadway Avenue and Canyon Boulevard. Many other archived photos can be found at <http://bcn.boulder.co.us/basin/history/1894flood.html>.
- Go to Google Maps, www.maps.google.com and type "Broadway Canyon Boulder, CO 80302." Once the map loads, have the students click on the "Hybrid" box in the upper right hand corner. Zoom-in to see close detail.
- Discuss what is located near that corner now and what might be at risk in the area if a similar flood were to happen.



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Boulder Floodplains,
100-year and 500-year
floodplain map

PART 2

Investigation of Boulder County Floodplains

Discuss the potential flood risk in Boulder and surrounding communities. Explain 100-year floodplains, the implications of growth and the effects flooding could have on structures and land located in the floodplain.

directions

- Discover Boulder's 100-year floodplain at www.boulderfloodinfo.net. This interactive map actively demonstrates the floodplain, important community structures and roads that lie within it. Follow these directions:
- Click on "Floodplain Maps"
- Click on the "Floodplain Map" link again
- Click on "eMapLink"
- Click "I agree" to the disclaimer
- Click on "Map" once to zoom in
- Click on "Layers" tab in upper left hand corner
- Click on "Flood" arrow
- Click on "Flood Zones"
- Click "Update Map"
- Continue to "Update the Map" with other map layers such as creeks under "Hydrology," the bus routes under "Transportation" or public schools or parks under "Neighborhood/Parks." Notice how the floodplain is directly correlated with the creeks and ditches.

Discussion Ideas

- Discuss the types of activities, homes, schools and businesses that would be affected if there were a flood in the community (e.g. the Boulder Public Library, Boulder High School, homes, the Pearl Street Mall, etc.).
- Determine if anyone lives in the floodplain.
- Discuss how it is especially important for students and their families living in the floodplain to be prepared. (Alternatively, print up and copy the Boulder 100-floodplain map and have the same discussion in class.)



ELDORADO
CANYON FLOOD

More photos to compare & contrast!

Take your students to <http://bcn.boulder.co.us/basin/gallery/sboulder50yrs.html>
Check-out these photos! They show the development that has occurred around South Boulder Road in the last 50 years.

Check this out!

An interactive video on the
The Big Thompson Flood ...
the biggest flood in Front
Range history killed 144 people!
www.coloradoan.com/news/thompson

Watch this!

Experience the Boulder Flood.
Watch the video from Channel 8
at www.boulderfloodinfo.net.
Click on "Flood Preparedness."

