Summary
Here are a series of extensions that you can do with your students using the Chicago River maps they created as part of their Chicago River lesson taught by Friends of the Chicago River.

Extensions
Writing Extension
Have students write a story about what a person would see, hear and smell from a particular location within the Chicago River watershed during the four time periods depicted in the maps.

Reading Extension
The Encyclopedia of Chicago is a great online resource of collected maps showing the development of Chicago and the Chicago River. Visit their website at www.encyclopedia.chicagohistory.org/pages/700011.html and select the maps you wish to use, or use the one’s included in this lesson.

Math Extension
Have students calculate for each of the four maps the percentage of the original Chicago watershed (as drawn on the watershed map) is covered in city.

Standards:
Standards depend on extension used, but could include:

NGSS:
Standards depend on extension used, but could include:

Materials:
- See individual extension write-ups

Supplies
Overhead projector paper that can be run through photocopier

Directions
Photocopy the included sheet with dots onto overhead sheets. Have students place overhead over the watershed map and count how many dots there are in the watershed. Every dot that falls within the watershed boundary should be counted.
Every other dot that falls on the watershed boundary should be counted. Then have students count how many dots there are in the city in the same manner. Have students count the number of dots there are in the city for each of the four maps.

Based on the fact that 37 dots equal 100 square miles, have your students calculate the area of the watershed. Then have them calculate the area of the city in each of the four maps. Then have students calculate the percentage of the watershed area that is covered by the city for each of the four maps. Students can make a bar or line graph (with the percent as the x-axis and time as the y-axis) to show the change over time.

Recalling what they learned about watersheds, erosion and pollution, have students brainstorm what they think the effect of the growing city was and is on the Chicago River. (The flow of the river has increased, because less water seeps into the soil and more water flows into the river through storm drains.

Flooding is more prevalent for the same reason. Erosion has increased due to more water flowing over, instead of seeping into, the land and because the river’s flow is stronger, especially after rain storms. In addition, non-point pollution, pollution such as fertilizers, oil on roads and parking lots, salting in winter, from across the watershed, has increased.)
Chicago River Watershed

- Des Plaines River
- Skokie River
- West Fork
- South Fork
- Skokie Lagoons
- North Shore Channel
- Bubbly Creek
- North Branch
- South Branch
- Main Branch
- Sanitary & Ship Canal
- Cal Sag Channel
- Lake Calumet
- Calumet River
- Little Calumet River
- Tinley Creek
- Thorn Creek
- Plum Creek
- Wolf Lake

Friends of the Chicago River

More with Chicago River Maps

p. 7