

LESSON | Designing Around Water



It's possible for parks to protect the community! Some are designed to stop storm surges and limit runoff pollution.

Objective

Students will integrate technical information expressed in words and visuals and determine the meaning of domain-specific words in their scientific context.

Time

45 minutes

Materials

- Design a "Water" Park activity sheet
- Related Source: How Is Water Cleaned? Source to Tap digital interactive: scholastic.com/njaw/waterworks

INSTRUCTIONS

1 Display an image of Cramer Hill Waterfront Park in Camden, N.J. (nj.gov/dep/nrr/cramer-hill.htm). Ask students how they think this new park could benefit their community. Explain that new parks like this one are being built to do more than just provide leisure space for residents—they also clean runoff water and can slow down storm surges (destructive rises in sea level that often happen during hurricanes) and other flooding events.

2 Instruct students to form small groups to briefly research the dangers of storm surges and runoff water. Storm surges can be over 20 feet high and spread across hundreds of miles of coast. Rushing water can be deadly: Six inches of moving water can knock a person down, and two feet of water can sweep away a large vehicle. Runoff water can carry pollution such as oil, chemicals, and lawn fertilizers. Have students take notes on their research.

3 Tell students to consider how the displayed park might address those

dangers. Give them a few minutes to brainstorm how the park might function.

4 Introduce some of the structures and features that allow a park to limit the effects of storm surges and to prevent runoff pollution.

- Large green spaces provide a place for storm surge water to collect and absorb into the ground.
- The park's green spaces and barrier walls provide a protective buffer for the community behind it.
- Thick vegetation at the water's edge absorbs any pollutants before they enter the waterways.
- Vegetation slows down runoff water, reducing erosion and damage to sewer systems.

5 Distribute the Design a "Water" Park activity sheet. Guide students as they work on the activity.

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Extension

Designing a park involves professionals such as urban planners, landscape architects, and mechanical engineers. Have students consider whether they might be interested in doing these jobs one day by:

- Researching and writing job descriptions for each role
- Researching other jobs that are involved with the design of outdoor spaces