Save Our Schoolyard

Standards resources and assessment guide

Authored public demonstration. This guide accompanies the editable ClassSprig sample exports. Educator review required before classroom use.

Planned standards connection

NGSS 4-ESS3-2: Develop and compare solutions that reduce effects of natural Earth processes on people.

Planned connection to the national NGSS expectation. Not an imported Ohio standard or verified alignment.

https://www.nextgenscience.org/pe/4-ess3-2-earth-and-human-activity

Day 1: Identify flooding as the problem and describe runoff pathways.

Day 2: Collect evidence about how surfaces influence runoff in a controlled model.

Day 3: Create two distinct solutions with explicit criteria and constraints.

Day 4: Compare both solutions using repeated measurements and consider revision.

Day 5: Defend a recommendation and explain limits of the model.

Instructional connection does not certify alignment, adoption by a state or student mastery. Confirm your own curriculum requirements.

Resources for this lesson

Urbanization and Stormwater Runoff - US EPA

https://www.epa.gov/sourcewaterprotection/urbanization-and-stormwater-runoff

Teacher background for Day 1. Explain runoff and impervious surfaces in your own words.

Types of Green Infrastructure - US EPA

https://www.epa.gov/green-infrastructure/types-green-infrastructure

Teacher-selected images and explanations for Day 3. Preview before projecting; no publisher media is copied into this package.

Flood Basics - NOAA NSSL

https://www.nssl.noaa.gov/education/svrwx101/floods/

Teacher background and optional linked video. Preview video, language, ads and suitability before use; a video is not required for the lesson.

Sources checked November 28 2026. Links only. No publisher media is embedded or redistributed. Preview again before class. A virtual field trip or independently reviewed interactive simulation was not selected; this sample does not invent either.

Presentation rubric

Four dimensions, each scored from zero to two, for a maximum of eight points. Apply the same reasoning expectations to written, spoken and drawn responses.

Mechanism

2 points: Explains how the design changes water movement or storage.

1 point: Names a mechanism with an incomplete explanation.

0 points: Does not explain a mechanism.

Comparison and evidence

2 points: Compares both designs using relevant measurements at both locations.

1 point: Uses one relevant number or an incomplete comparison.

0 points: No relevant measurements.

Criteria and constraints

2 points: Checks both volume criteria and the token budget.

1 point: Addresses only some requirements.

0 points: Does not check requirements.

Limits and next test

2 points: Identifies a meaningful limit and a test that addresses it.

1 point: Identifies a limit or a next test without a clear link.

0 points: Claims certainty or provides neither.

Teacher decision rule

Use the dimension scores to plan follow-up. Revisit mechanisms for weak water-path explanations, compare both collection points for one-number arguments, and distinguish invented data from observation. The score alone does not establish standards mastery.

Teaching profile and curriculum memory examples

Profile example: Grade 4, science, English, five 45 minute lessons, inquiry with explicit modeling, storybook slide family, all seven deliverable categories. These are sample preferences, not an account saved on the public site.

Curriculum memory example: Before this unit, review water movement and measuring volume. After Day 2, revisit fair comparisons if students confuse missing water with infiltration. Next unit idea: erosion and ways to protect soil. These are planning notes, not a live curriculum-memory record.

Import style example: a teacher could review a prior lesson to guide voice and available design cues. No teacher file or student data was used or uploaded for this sample.