

Station 1: Macroinvertebrate Identification

Students will evaluate water quality using a dip net and identify macroinvertebrates using taxonomic keys. Students will discuss the food web as it applies to macroinvertebrates and water quality components.

Subject	Standard
Social Studies: ES.9.7.3	Analyze positive and negative consequences of human changes on the physical environmentES.9.7.3
Science: 7-LS2-2	Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems
ELA: RI.7.10	By the end of the year, read and comprehend literary nonfiction in the Grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.
Science: 7-LS2-5	Evaluate competing design solutions for maintaining biodiversity and ecosystem services.
Science: 7-LS2-6	Construct a scientific explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms.
Science: 7-LS2-4	Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.
Science: 7-PS1-6	Undertake a design project to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes.

Station 3: Water Quality Testing - Freshwater Pollutants

Students will assess common pollutant levels. Students can take data back to the classroom for further review and discussion.

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Science: 7-LS2-2	Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.
ELA: RI.7.10	By the end of the year, read and comprehend literary nonfiction in the Grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.
Science: 7-LS2-1	Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.
Science: 7-LS2-4	Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

Station 4: Invasive Management

Students will analyze common invasive plant species and why they are less ideal than native plants. Students will assess a landscape and complete a removal of the invasive plant species.

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Science: 7-LS2-2	Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.
ELA: RI.7.10	By the end of the year, read and comprehend literary nonfiction in the Grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.
Science: 7-LS2-1	Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.
Science: 7-LS2-5	Evaluate competing design solutions for maintaining biodiversity and ecosystem services

Station 5: Ecosystem Engineers

Students will analyze the unique behaviors of beavers and how they build environments that allow them to thrive in the ecosystem.

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Science: 7-LS2-2	Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.
ELA: RI.7.10	By the end of the year, read and comprehend literary nonfiction in the Grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.
Science: 7-LS2-1	Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.
Science: 7-LS2-5	Evaluate competing design solutions for maintaining biodiversity and ecosystem services

Station 6: Watershed Mapping

Students will analyze how Osage Park fits into the watersheds in Bentonville and continue to zoom out to Illinois River watershed, Arkansas River watershed, Mississippi River watershed.

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ELA: RI.7.10	By the end of the year, read and comprehend literary nonfiction in the Grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.
Science: 7-ESS3-2	Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.

Additional Station A: Water Filtration

Students will examine how water is filtered as it percolates down to the the aquifer on a small scale. This will be completed using water bottles and different materials such as sand, soil, clay, rocks, etc.

Additional Station B: Terarriums

Students will construct a terrarium using recycled bottles

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Science: 7-ESS3-2	Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.