



Atascadero Mutual Water Company
2022 / 2023 SCHOOL YEAR

Sponsored by Atascadero Mutual Water Company

Water Watch

TEACHER NEWSLETTER
for Water Education

IN-PERSON AND VIRTUAL PROGRAMS FOR THE 2022-2023 SCHOOL YEAR!

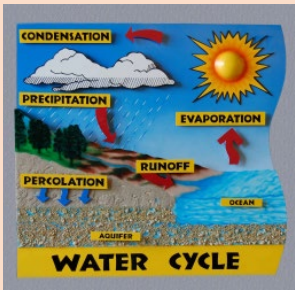
As always, our programs are free and taught by an experienced environmental educator who will adapt each program to the unique needs of each individual class. Whether your programs are in-person or virtual, your students will have the opportunity to participate in real-time with your presenter, ask and answer questions, and learn more about water conservation.



THE STORY OF YOUR WATER

Grades 3–6, 40–45-Minute Classroom or Virtual Presentation, FREE

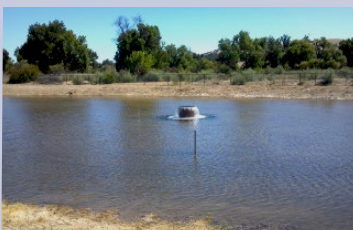
This interactive program will help your 3rd–6th grade students understand the importance of water resources in Atascadero. Eye-catching three-dimensional storyboards, called the water puzzle, are used to keep students focused and involved.



WATER EXPLORATION FIELD TRIP

Grades 4–6, 120 minute in-person field trip, FREE, Transportation costs (busses) are paid for by the Atascadero Mutual Water Company

The Water Exploration field trip provides students with a terrific investigation of the Salinas River, and how this water source is managed to provide a safe, reliable water supply to residents of the Atascadero area. Students will see how water is produced and treated before being sent to homes. They will also learn about groundwater and how it is being managed in the Atascadero Groundwater Basin. The pre-requisite for this field trip is The Story of Your Water class presentation. **Available in March, April, and May**



The Nacimiento recharge basin allows water to percolate into the groundwater basin, replenishing water storage.



Students will observe and learn about equipment for pumping and purifying water.

EDUCATION TEAM



STACEY BEVERIDGE is beginning her 15th year as a school educator. She has a BS in education from Eastern Michigan University, and a California teaching credential. Stacey has received many accolades from kindergarten and first grade teachers. In addition to her classroom work, Stacey coordinates scheduling class programs and general office operations.



MIKE DI MILO has a degree in Natural Resources Management. He leads field trips and is involved in coordinating all of the education program activities. Mike has over twenty years of experience in developing and administering school education programs.



HANNAH HEAVENRICH is starting her 5th year as a school educator. She has a Bachelor's degree in environmental studies from Carleton College and a Master's degree in biology from Arizona State University. She is a skilled instructor with experience leading education-based outdoor classes. Hannah is passionate about environmental outreach and education and enjoys sharing her passion for the outdoors.



PRISCILLA SISOMMOUT is beginning her 4th year as a school educator. She holds a B.S. in Evolution, Ecology, and Biodiversity from U.C. Davis. Her passion for the environment is exemplified by the many environmental projects in which she has participated. Priscilla has experience teaching about watersheds, working as a fisheries technician at Point Reyes National Seashore, and collecting data about water quality.



DEAN THOMPSON has over 30 years of experience teaching environmental education along the central coast of California. He received his B.S. in Natural Resources Management from Cal Poly San Luis Obispo and holds a Multiple Subject Teaching Credential. Dean brings a wealth of experience and enthusiasm to his new education team.

COOL STUFF About Atascadero Mutual Water Company



Atascadero Mutual Water Company (AMWC) was incorporated August 13, 1913, by Atascadero's founder E.G. Lewis, and is the oldest continuous-operating company in the Colony of Atascadero. Since its formation in 1913, AMWC has provided water for domestic and irrigation purposes at cost to its shareholders. AMWC is one of the largest retail mutual water companies in the state, and is responsible for meeting the water requirements of more than 30,000 people.

AMWC's water system is comprised of approximately 250 miles of pipeline ranging in size from 4 inches to 24 inches, with 9 storage tanks that range in size from 120,000 gallons to 4.8 million gallons. There are 17 active wells, 8 booster stations, five treatment buildings, and 20 pressure-reducing stations located throughout the system. In addition, there are over 10,000 customer service connections, 1,900 valves, and 1,700 fire hydrants. Elevations in the system vary from 800 feet, at the well fields along the Salinas River, to 1,916 feet, at the tank located in Summit Hills.

SCHEDULE YOUR PRESENTATIONS AND FIELD TRIPS

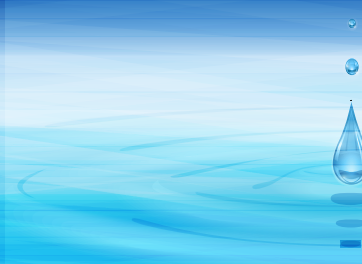
SCHEDULE NOW!



CALL (805) 781-8341

EMAIL ScheduleMyProgram@gmail.com

Next Generation Science Standards



For full standards text, please visit NextGenScience.org

Science & Engineering Practices
Disciplinary Core Ideas
Crosscutting Concepts

WATER EXPLORATION FIELD TRIP

| 4th | 5th | 6th |
|--|--|--|
| <p>4-LS1 From Molecules to Organisms: Structures and Processes</p> <p>Engaging in Argument from Evidence Engaging in argument from evidence in 3–5 builds on...</p> <p>Use a model to test interactions concerning the functioning of a natural system. (4-LS1-2)</p> <p>LS1.A: Structure and Function Plants and animals have both internal and external structures... (4-LS1-1)</p> <p>4-ESS2 Earth's Systems</p> <p>Planning and Carrying Out Investigations Planning and carrying out investigations to answer questions or test solutions...</p> <p>Make observations and/or measurements to produce data to... (4-ESS2-1)</p> <p>Analyzing and Interpreting Data Analyzing data in 3–5 builds on K–2 experiences and progresses... (4-ESS2-2)</p> <p>ESS2.A: Earth Materials and Systems Rainfall helps to shape the land and affects the types of living things... (4-ESS2-1)</p> <p>ESS2.E: Biogeology Living things affect the physical characteristics of their regions. (4-ESS2-1)</p> <p>Patterns Patterns can be used as evidence to support an explanation. (4-ESS2-2)</p> <p>Cause and Effect Cause and effect relationships are routinely identified, tested, and used to explain change. (4-ESS2-1)</p> <p>3–5-ETS1 Engineering Design</p> <p>Developing and Using Models Modeling in 3–5 builds on K–2 experiences and progresses to building and revising simple models and using models to represent events and design solutions.</p> <p>Influence of Engineering, Technology, and Science on Society and the Natural World People's needs and wants change over time, as do their demands for new and improved technologies. (3–5-ETS1-1)</p> <p>Engineers improve existing technologies or develop new ones... (3–5-ETS2)</p> | <p>5-LS1 From Molecules to Organisms: Structures and Processes</p> <p>Engaging in Argument from Evidence Engaging in argument from evidence in 3–5 builds on ...</p> <p>Support an argument with evidence, data, or a model. (5-LS1-1)</p> <p>LS1.C: Organization of Matter and Energy Flow in Organisms Plants acquire their material for growth chiefly from air and water. (5-LS1-1)</p> <p>5-LS2 Ecosystems: Interactions, Energy, and Dynamics</p> <p>LS2.A: Interdependent Relationships in Ecosystems The food of almost any kind of animal can be traced back to plants... (5-LS2-1)</p> <p>LS2.B: Cycles of Matter and Energy Transfer in Ecosystems Matter cycles between the air and soil ... (5-LS2-1)</p> <p>5-ESS2 Earth's Systems</p> <p>Developing and Using Models Modeling in 3–5 builds on...</p> <p>Develop a model using an example to describe a scientific principle. (5-ESS2-1)</p> <p>ESS2.C: The Roles of Water in Earth's Surface Processes Nearly all of Earth's available water is in the ocean... (5-ESS2-2)</p> <p>Scale, Proportion, and Quantity Standard units are used... (5-ESS2-2)</p> <p>5-ESS3 Earth and Human Activity</p> <p>ESS3.C: Human Impacts on Earth Systems Human activities in agriculture, industry, and everyday life have had major effects on the land... (5-ESS3-1)</p> <p>5-PS2 Motion and Stability: Forces and Interactions</p> <p>PS2.B: Types of Interactions The gravitational force of Earth acting on an object near Earth's surface pulls that object toward the planet's center. (5-PS2-1)</p> <p>3–5-ETS1 Engineering Design</p> <p>Influence of Engineering, Technology, and Science on Society and the Natural World People's needs and wants change over time, as do their demands for new and improved technologies. (3–5-ETS1-1)</p> <p>Engineers improve existing technologies or develop new ones... (3–5-ETS2)</p> | <p>MS Earth's Systems</p> <p>Developing and Using Models Modeling in 6–8 builds on...</p> <p>Develop a model to describe unobservable mechanisms. (MS-ESS2-4)</p> <p>Planning and Carrying Out Investigations Planning and carrying out investigations in 6–8 builds on...</p> <p>Collect data to produce data to serve as the basis... (MS-ESS2-5)</p> <p>ESS2.C: The Roles of Water in Earth's Surface Processes Water continually cycles among land, ocean, and atmosphere... (MS-ESS2-4)</p> <p>Global movements of water and its changes in form are propelled by sunlight and gravity. (MS-ESS2-4)</p> <p>Energy and Matter Within a natural or designed system, the transfer of energy drives the motion and/or cycling of matter. (MS-ESS2-4)</p> <p>MS Energy</p> <p>PS3.A: Definitions of Energy Temperature is a measure of the average kinetic energy of particles of matter... (MS-PS3-3), (MS-PS3-4)</p> <p>MS Human Impacts</p> <p>ESS3.C: Human Impacts on Earth Systems Human activities have significantly altered the biosphere... (MS-ESS3-3)</p> <p>Typically as human populations and per-capita consumption of natural resources increase, so do the negative impacts on Earth... (MS-ESS3-3)</p> <p>MS Engineering Design</p> <p>Influence of Science, Engineering, and Technology on Society and the Natural World All human activity draws on natural resources and has both short and long-term consequences... (MS-ETS1-1)</p> <p>The uses of technologies and limitations on their use are driven by individual or societal needs... (MS-ETS1-1)</p> |

Next Generation Science Standards



Science & Engineering Practices

Disciplinary Core Ideas

Crosscutting Concepts

THE STORY OF YOUR WATER

| 3rd | 4th | 5th | 6th |
|--|--|--|---|
| <p>3-LS2 Ecosystems: Interactions, Energy, and Dynamics</p> <p>Cause and Effect Cause and effect relationships are routinely identified and used to explain change. (3-LS2-1)</p> <p>3-LS4 Biological Evolution: Unity and Diversity</p> <p>LS2.C: Ecosystem Dynamics, Functioning, and Resilience When the environment changes in ways that affect ... 3-LS4-4)</p> <p>LS4.C: Adaptation For any particular environment... (3-LS4-3)</p> <p>3-ESS2 Earth's Systems</p> <p>Patterns Patterns of change can be used to make predictions. (3-ESS2-1), (3-ESS2-2)</p> <p>3-ESS3 Earth and Human Activity</p> <p>ESS3.B: Natural Hazards A variety of natural hazards result from natural ... (3-ESS3-1) (Note: This Disciplinary Core Idea is also addressed by 4-ESS3-2.)</p> <p>Influence of Engineering, Technology, and Science on Society and the Natural World Engineers improve existing technologies or ... (3-ESS3-1)</p> <p>Connections to Nature of Science</p> <p>Science is a Human Endeavor Science affects everyday life. (3-ESS3-1)</p> | <p>4-ESS2 Earth's Systems</p> <p>ESS2.A: Earth Materials and Systems Rainfall helps to shape the land and affects the types of ... (4-ESS2-1)</p> <p>Patterns Patterns can be used (4-ESS2-2)</p> <p>Cause and Effect Cause and effect relationships are ... (4-ESS2-1)</p> <p>4-ESS3 Earth and Human Activity</p> <p>ESS3.B: Natural Hazards A variety of hazards result from natural ... (4-ESS3-2)</p> <p>4-PS3 Energy</p> <p>Energy Transfer Light also transfers energy from place to place. (4-PS3-2)</p> <p>3–5-ETS1 Engineering Design</p> <p>Influence of Engineering, Technology, and Science on Society and the Natural World People's needs and ... (3–5-ETS1-1)</p> <p>Engineers improve existing technologies ... (3–5-ETS-2)</p> | <p>5-LS1 From Molecules to Organisms: Structures and Processes</p> <p>LS1.C: Organization for Matter and Energy Flow in Organisms Plants acquire their material for growth chiefly from air and water. (5-LS1-1)</p> <p>5-LS2 Ecosystems: Interactions, Energy, and Dynamics</p> <p>Developing and Using Models Modeling in 3–5 builds on K–2 models ...</p> <p>5-ESS2 Earth's Systems</p> <p>ESS2.A: Earth Materials and Systems Earth's major systems are the geosphere (solid and molten rock, soil, and sediments... (5-ESS2-1)</p> <p>ESS2.C: The Roles of Water in Earth's Surface Processes Nearly all of Earth's available water is in the ocean... (5-ESS2-2)</p> <p>Scale, Proportion, and Quantity Standard units are used to measure and describe ... (5-ESS2-2)</p> <p>5-ESS3 Earth and Human Activity</p> <p>ESS3.C: Human Impacts on Earth Systems Human activities in agriculture, industry, and everyday life ... (5-ESS3-1)</p> <p>5-PS2 Motion and Stability: Forces and Interactions</p> <p>PS2.B: Types of Interactions The gravitational force of Earth acting on an object near Earth's surface pulls that object toward the planet's center. (5-PS2-1)</p> <p>3–5-ETS1 Engineering Design</p> <p>Influence of Engineering, Technology, and Science on Society and the Natural World People's needs and wants change over time... (3–5-ETS1-1)</p> <p>Engineers improve existing technologies or develop new ones ... (3–5-ETS-2)</p> | <p>MS-ESS2 Earth's Systems</p> <p>ESS2.C: The Roles of Water in Earth's Surface Processes Water continually cycles among land, ocean, ... (MS-ESS2-4)</p> <p>Global movements of water and its changes ... (MS-ESS2-4)</p> <p>Cause and Effect Cause and effect relationships may be used ... (MS-ESS2-5)</p> <p>Systems and System</p> <p>Models Models can be used to represent systems ... (MS-ESS2-6)</p> <p>Energy and Matter Within a natural or designed system... (MS-ESS2-4)</p> <p>MS-ESS3 Earth and Human Activity</p> <p>Asking Questions and Defining Problems Asking questions and defining problems in grades 6–8 builds...</p> <p>ESS3.C: Human Impacts on Earth Systems Human activities have significantly altered the biosphere... (MS-ESS3-3)</p> <p>MS-ETS1 Engineering Design</p> <p>ETS1.A: Defining and Delimiting Engineering Problems The more precisely a design task's criteria and constraints... (MS-ETS1-1)</p> <p>Influence of Science, Engineering, and Technology on Society and the Natural World All human activity draws on natural resources... (MS-ETS1-1)</p> <p>The uses of technologies and ... (MS-ETS1-1)</p> |