

WATER EDUCATION BROCHURE



2023-2024



PROGRAM COMPONENTS



PRESENTATIONS

Grade-level and classroom presentations



WATER EDUCATION UNITS

Updated standards-based, grade-level water education units



VIDEOS

New grade specific videos and water purification video series



TEACHER TRAINING

Project WET (Water Education for Today) teacher training and school-wide unit introductions



POSTER CONTEST

Annual Water Awareness Poster Contest



CAREER DAY

Participation in Career Day events

ALL PROGRAMS ARE OFFERED FREE OF CHARGE TO ALL PUBLIC AND PRIVATE SCHOOLS LOCATED WITHIN ID4'S SERVICE AREA.

PROGRAM OVERVIEW

Each year, the Kern County Water Agency's Improvement District No. 4's (ID4) comprehensive Water Education Program educates thousands of local students about Bakersfield's local and state water supplies, and the importance of water and its conservation. As a result of these resources, students are able to make informed decisions regarding water and its conservation. All curricula and instruction offered correlate to the Common Core and Next Generation Science Standards for kindergarten through 12th grade.

Contact information:

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Kindergarten Program “Ruby the Radish” – Urban Water Use and Water Conservation



Ruby the Radish starts as a seed but raises awareness of how to use water wisely as she grows. Through the interaction with the other characters in the story, Ruby the Radish relays to the young reader ways to save and conserve water inside and outside the average urban household.

This inquiry-based water education unit teaches kindergarten students in Bakersfield the importance of water and its conservation. Students will learn about the water cycle and the different states of water as a basis for this understanding. In addition, students will learn that plants require water to grow. Activities for students focus on water-related topics that are fun, easy to use and hands on.

Teachers have the option of scheduling a live 20-minute presentation created around the character Ruby the Radish.



Supports Common
Core and Next
Generation Science
Standards

Lessons Included

- Response to Literature
- Water Cycle in a Cup
- Growing Radishes



Materials Included in Unit

- Storybook, “*Ruby the Radish*”
- Classroom Poster
- Custom Teacher Bag
- Radish Seeds and Cups
- Water Cycle in a Cup Materials
- Student Science Observation Journals
- Bookmarks
- Water Deputy Badges
- Crayons

NEW TEACHERS NOW HAVE THE OPTION OF THE FOLLOWING:



LIVE PRESENTATIONS

Schedule grade-level or classroom presentations where teachers receive the water education unit and educational materials for students.



NEW ANIMATED VIDEO

Students watch the new animated video, *Exploring Bakersfield's Water*. Water education unit and educational materials for students will be delivered to the classroom. Video can be viewed on the Agency's website or Padlet.



FOR EDUCATIONAL REQUESTS, PLEASE COMPLETE THE
GOOGLE FORM ON PADLET OR VISIT THE AGENCY'S WEBSITE.

1st Grade Program "Suzie-Q's Water Awareness Campaign" – Urban Water Use and Water Conservation



1ST-GRADE UNIT
UPDATED IN 2023!
EACH STUDENT NOW
RECEIVES THEIR OWN
ACTIVITY BOOK



Supports Common
Core and Next
Generation Science
Standards

Suzie-Q is a heroic squirrel who leaps from tall trees to make metropolitan Bakersfield residents aware of water conservation.

This water education unit teaches first-grade students in Bakersfield the importance of water and its conservation. Students will be introduced to their water sources and the many ways they use water at home and school in order to gain a deeper understanding of this topic. The lessons are filled with water-related activities that are hands on, easy to use and fun for students.

Teachers have the option of scheduling a live 25-minute presentation created around the character Suzie-Q.

Lessons Included

- Response to Literature
- How I Use Water
- Water Conservation Mobile



Materials Included in Unit

- NEW Suzie-Q's Water Awareness Campaign Activity Book for Each Student
- Classroom Poster
- Globe Ball
- Custom Teacher Bag
- Bookmarks
- Water Deputy Badges
- Crayons

NEW TEACHERS NOW HAVE THE OPTION OF THE FOLLOWING:



LIVE PRESENTATIONS

Schedule grade-level or classroom presentations where teachers receive the water education unit and educational materials for students.



NEW ANIMATED VIDEO

Students watch the new animated video, *Exploring Bakersfield's Water*. Water education unit and educational materials for students will be delivered to the classroom. Video can be viewed on the Agency's website or Padlet.



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2nd Grade Program

“Casey’s Purification Journey” – Water Purification and Water Conservation



2ND-GRADE UNIT
UPDATED IN 2023!
EACH STUDENT NOW
RECEIVES THEIR OWN
ACTIVITY BOOK



Supports Common
Core and Next
Generation Science
Standards

Join Casey on his amazing water journey from the top of Mt. Whitney through the Henry C. Garnett Water Purification Plant before traveling to homes and businesses in metropolitan Bakersfield.

This inquiry-based water education unit teaches second-grade students how water is cleaned and purified at the Henry C. Garnett Water Purification Plant, where their water comes from, water conservation and that seeds need water to grow. The activities are focused on water-related projects that are hands on, easy to implement and fun.

Teachers have the option of scheduling a live 30-minute presentation created around the character Casey.

NEW Lessons Included

- Response to Literature
- Earth's Water
- Growing California Poppies



Materials Included in Unit

- NEW Casey’s Purification Journey Activity Book for each student
- Classroom Poster
- Globe Ball
- Custom Teacher Bag
- Poppy Seeds and Cups
- Water Cycle in a Cup Materials
- Bookmarks
- Water Deputy Badges
- Crayons

NEW TEACHERS NOW HAVE THE OPTION OF THE FOLLOWING:



LIVE PRESENTATIONS

Schedule grade-level or classroom presentations where teachers receive the water education unit and educational materials for students.



NEW ANIMATED VIDEO

Students watch the new animated video, *Exploring Bakersfield's Water*. Water education unit and educational materials for students will be delivered to the classroom. Video can be viewed on the Agency's website or Padlet.



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3rd–4th Grade Program Uncover the Facts! Metropolitan Bakersfield’s Water Story



Water in California is the theme explored in this exciting standards-based water education unit that highlights Bakersfield’s rich water history and how water is moved throughout the State of California. A focus has been placed

on local history, using original photographs that help the students visualize the past. Using a timeline activity, students will be able to describe the relationship between these regional historical events. A discussion of California's water infrastructure and local water sources will also be presented to students. As a concluding activity, students will learn how much water it takes to make one of their favorite foods: pizza.

Teachers have the option of scheduling a live 45-minute interactive presentation that teaches students about Bakersfield’s water supplies, how that water is used, and the importance of water conservation. In the final portion of the presentation, students create a pizza display together. Seeing how much water goes into making food allows students to appreciate how much water we use every day.

 Supports Common Core and Next Generation Science Standards

Lessons Included

- A City Starts With Water
- Kern County Water Through the Years
- Moving Water



Materials Included in Unit

- Classroom Set of Water Education Workbooks
- Custom Teacher Bag
- Bookmarks
- Wrist Bands
- Pencils

NEW TEACHERS NOW HAVE THE OPTION OF THE FOLLOWING:



LIVE PRESENTATIONS

Schedule grade-level or classroom presentations where teachers receive the water education unit and educational materials for students.



NEW ANIMATED VIDEO

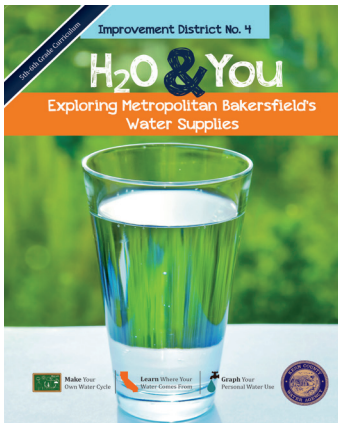
Students watch the new animated video, *Exploring Bakersfield's Water*. Water education unit and educational materials for students will be delivered to the classroom. Video can be viewed on the Agency's website or Padlet.



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5th–6th Grade Program

H2O & You - Exploring Metropolitan Bakersfield's Water Supplies



This exciting standards-based program explores the water cycle, surface water supplies, and groundwater, as well as how water is purified at the Henry C. Garnett Water Purification Plant. This unit

emphasizes inquiry-based learning, and students have the opportunity to explore a range of topics related to water. Through making their own groundwater wells, students can delve deeper into the concept of groundwater. Students will be able to visualize how water is stored and taken out of the ground. As part of the unit, students also play a matching game that helps them learn more about the water cycle.

Teachers have the option of scheduling a live 50-minute engaging and interactive assembly that features an exploration of the scientific process through the demonstration of two experiments on the chemical components of water.

Supports Common Core and Next Generation Science Standards

Lessons Included

- ▶ The Water Cycle
- ▶ Where Does My Water Come From?
- ▶ Water Purification



Materials Included in Unit

- Classroom Set of Water Education Workbooks
- pH Balance Activity Kit
- "Make Your Own Well" Activity Kit
- Wristbands
- Custom Teacher Bag
- Bookmarks
- Pencils
- Globe Ball

NEW TEACHERS NOW HAVE THE OPTION OF THE FOLLOWING:



LIVE PRESENTATIONS

Schedule grade-level or classroom presentations where teachers receive the water education unit and educational materials for students.



NEW VIDEO

Students watch the new video, *Exploring Metropolitan Bakersfield's Water Supplies*. Water education unit and educational materials for students will be delivered to the classroom. Video can be viewed on the Agency's website or Padlet.



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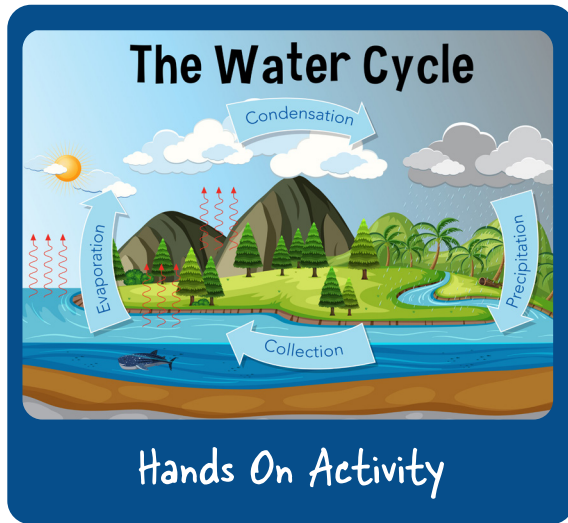
ADDITIONAL PROGRAMS

Classroom Activity The Incredible Journey

GREAT AS A FOLLOW-UP ACTIVITY TO
THE WATER EDUCATION PRESENTATIONS



Supports Common
Core and Next
Generation Science
Standards



This 60-minute Project WET (Water Education for Today) activity is available for 4th–6th grade classrooms. Students will role-play as a water molecule, which helps them conceptualize the water cycle as more than a two-dimensional path. At the conclusion of the lesson, students will have made a water cycle bracelet that describes their “Incredible Journey” as a water molecule. The objectives covered in the lesson include: the movement of water within the water cycle; the different states of water as it moves through the water cycle; the location of most of the water on Earth; and the concepts of evaporation and condensation. As a language arts extension activity, teachers have the option of having students write a story about the water molecule’s journey. The classroom activity directly correlates to Next Generation Science Standards.

Water Awareness Poster Contest

The annual 1st–6th grades poster contest is part of ID4’s commitment to educating Kern County students about local water sources and water conservation. Winning entries are featured on the Kern County Water Agency’s website. Additional information will be coming to your school outlining contest rules, theme and additional information.



Career Day Presentations

ID4's educational objectives include providing students with information about water careers. As they learn about the variety of careers related to water, they will gain a better understanding of the sources of their water and the professions involved in providing water.

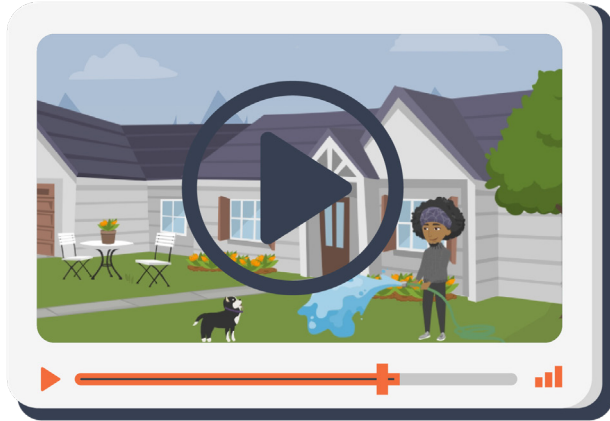


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VIDEOS

Kindergarten–4th Grade Animated Video Exploring Bakersfield's Water

NEW VIDEO FOR THE CLASSROOM

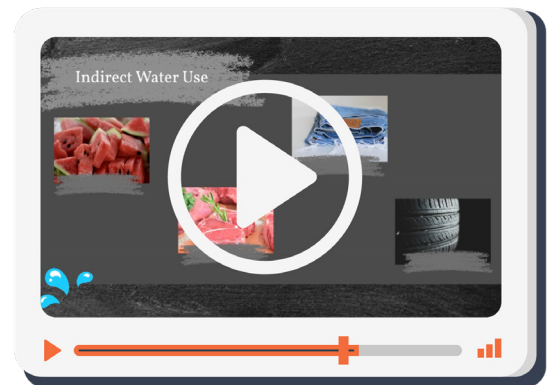


This animated video introduces Bakersfield students to their water sources and how they use that water. An in-depth look at water is presented in this video, starting with where Earth's water is found. In addition, the video demonstrates how living in a desert region affects our water supply. A discussion of Bakersfield's water sources follows, including surface water from northern California, Kern River water and groundwater. The video concludes with a look at how much water it takes to make a pizza. The importance of water conservation is stressed to the students, as well as individual measures that they can take to help.

5th–6th Grade Video A Deeper Look at Bakersfield's Water

NEW VIDEO FOR THE CLASSROOM

This video provides an overview of Bakersfield's water sources and how that water is used. In addition to examining direct water use, the video focuses on indirect water use, such as water used for growing food and to make items that are used every day. Students are also introduced to how water is cleaned and purified at the Henry C. Garnett Water Purification Plant. Water conservation as well as individual measures students can take to help are stressed to students.



Do the Water – Exploring Water Purification Video Series

The water that comes out of the tap has quite a story to tell. In this six-video segment, as part of the "Do the Science" series, the process of water purification is explored through scientific concepts, along with a preview of the variety of careers available in the water industry as demonstrated at the Kern County Water Agency's Improvement District No. 4 Henry C. Garnett Water Purification Plant. Videos can be viewed on the Agency's website and YouTube Channel.



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Teacher Training Water Awareness and Unit Introduction

No time for a school assembly? ID4 is now offering 20-minute teacher trainings at school sites. At the conclusion of the training, teachers receive grade-level water education units and classroom materials.



ID4 now offers school sites the opportunity to schedule primary and intermediate teacher trainings. The training includes a water awareness PowerPoint presentation that introduces Kern County's water sources, how water is used and water conservation practices. Teachers will then gain access to grade-level water awareness PowerPoint presentations that they can utilize in the classroom to teach their students about state and local water supplies. Grade-level water education units are then introduced.

Free Project WET Workshop

ID4 is proud to be a facilitator of Project WET (Water Education for Today). Project WET is an environmental education program that promotes awareness, appreciation, knowledge and stewardship of water resources. The teacher workshops provided by ID4 feature classroom-proven, hands on learning activities that make water topics come alive for students. The Project WET workshops model activities that are practical for teachers, while also engaging students' critical thinking skills. During the practicum portion of the workshops, ID4 supplies teachers with materials for their classrooms. Teachers enjoy using Project WET lessons, because they are designed to complement existing curricula, rather than replace it. All activities correlate to the Common Core and Next Generation Science Standards.



CALIFORNIA
project WET
WATER EDUCATION TODAY



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Improvement District No. 4 (ID4) was formed by a resolution adopted by the Kern County Water Agency (Agency) Board of Directors on December 21, 1971 to provide a supplemental water supply for portions of the metropolitan Bakersfield area through the importation of water from the State Water Project.

The Agency operates the Henry C. Garnett Water Purification Plant that delivers drinking water to the following purveyors:

California Water Service Company

City of Bakersfield

East Niles Community Services District

North of the River Municipal Water District
(which wholesales to Oildale Mutual Water Company)



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