

SAWS Water Education Program



ANNUAL REPORT

2020/2021 School Year

Make a Water Cycle Bracelet

Make sure you put a knot in your string first!

- 1 White bead — Cloud (condensation)
- 2 Light blue bead — Rain (precipitation)
- 3 Brown bead — Ground (accumulation)
- 4 Blue bead — Water in lake, river, ocean (surface water)
- 5 Green bead — Plants (transpiration)
- 6 Yellow bead — Sun (source of energy that keeps cycle moving)
- 7 Clear bead — Water vapor (evaporation)
- 8 White bead — Back to cloud (condensation)

SAWS Water Education Program Annual Report

School Year: 2020/2021

August 1, 2020 through July 31, 2021

Report Summary

This report presents an overview of the implementation of the Stockton Area Water Suppliers (SAWS) Water Education Program in the 2020/2021 school year. The report includes a summary of the year's outreach effort, a full report, the data and statistics resulting from that outreach effort, a description of the programs and presentations offered to Stockton area educators by the SAWS Water Education Program, participant feedback, and a tentative plan for the 2021/2022 school year.

Challenges associated with the COVID-19 pandemic continue to affect the SAWS Water Education Program. On March 13, 2020, all four Stockton area school districts announced restricted campus access for parents and community members due to the COVID-19 pandemic. The following week, Governor Newsom ordered all California schools closed. Stockton area school campuses remained closed for the rest of the 2019/2020 school year and the entire 2020/2021 school year. The SAWS Water Education Program was unable to implement classroom visits, Zun Zun assemblies or event outreach during this period. When schools began virtual learning via the Internet, the Coordinator developed and implemented a virtual water education program that was well received by teachers and administrators. Still, our outreach tallies remain significantly lower than previous years.

In the 2020/2021 school year, the SAWS Water Education Program continued to serve elementary/middle school classrooms in the Stockton service area. With the exception of six in-person presentations for the Lincoln District's summer school program in June 2021, all water education outreach was done virtually.

Under normal circumstances, the SAWS Water Education in-class outreach program offers six grade-level specific in-class presentations, the Zun Zun school-wide assembly program, and participation in Stockton area youth-oriented events. Because of the COVID-19 school closures, in-class programs and events were not permitted during the 2020/2021 school year. To continue outreach, the SAWS Water Education Program offered virtual learning programs through various methods. In the 2020/2021 school year, the SAWS Water Education Program reached 4,366 students virtually through the SAWS Water Education on-line Padlet program, 2,383 students through Zun Zun's "Water Beat" virtual assembly

program, 3,750 students through virtual Ag-Venture, and 257 students through in-person, classroom presentations during Lincoln Unified School District's summer school program in June 2021, for a total of 10,756 students.

2020/2021 Program Highlights:

In the 2020/2021 school year, the SAWS Water Education Program offered virtual learning through Padlet and on-line "Water Beat" assemblies performed by Zun Zun. The coordinator participated in virtual AgVenture and presented in person for Lincoln Unified School District's summer school program:

- The Program served 44 schools and venues, supplying virtual outreach and related supplies and materials for 236 classrooms, in-person presentations and supplies/materials for eight summer school classrooms, sponsored five virtual Zun Zun assemblies and participated in one virtual AgVenture event for a total of 10,756 students.
- The coordinator attended a variety of on-line meetings and seminars, including DWR's Water Education Committee meetings via Zoom, and participated in San Joaquin County Office of Education's Community Partners for Environmental Literacy (CPEL), a collaboration of local educators working toward effective environmental outreach, both physical and virtual.

For a complete breakdown of the 2020/2021 SAWS Water Education Program outreach statistics, please turn to the "Program Stats" tab in this report.

The Coming School Year: Virtual or In-Class?

While the SAWS Water Education Program was fully booked for in-class presentations in all four school districts in the 2020/2021 school year, all presentations were canceled, as schools remained closed for the entire year due to COVID-19. In an effort to continue to provide water education to the Stockton area, the SAWS Water Education Program offered on-line water education programs and delivery of related supplies and materials, as well as virtual Zun Zun assemblies. The Coordinator also participated in virtual AgVenture. In May 2021, the SAWS Water Education Program was invited to make in-person water education presentations for the Lincoln Unified School District's summer school program at Tully Knoles and Colonial Heights Elementary schools. Program Coordinator Kristin Coon, along with Water Education Instructor Kathy Kirchhof and newly hired Water Education Instructor Sue

Daugherty, visited both schools in mid-June 2021, making eight presentations for 257 summer school students. All SAWS staff members have been fully vaccinated, and masks were worn. The in-class presentations went smoothly; being back in the classroom was a pleasure for us and students, teachers and staff all enjoyed the water education presentations.

In May 2021, the Coordinator sent broadcast invitations for the 2021/2022 school year to hundreds of teachers and administrators in the four school districts served by the SAWS Water Education Program. The response was enthusiastic, and by the end of May we were almost fully booked for in-class presentations for the school year (August 2021 through early June, 2022). The first in-class presentations were scheduled for mid-August in the Lincoln District. As per routine, the Coordinator sent reminders to the teachers in late July to allow teachers to prepare for our visits. Unfortunately, in response to the reminders we were informed that the Lincoln Unified Superintendent of Schools has issued a directive stating that, due to the reinstatement of mask mandates and resurgence of COVID-19 infections, Lincoln schools will not allow members of community partner programs like ours on campus. The in-class SAWS Water Education Program presentations scheduled in August 2021 have been rescheduled for later in the year. At this writing, we are in a holding pattern, hoping the schools will allow us on campus in September.

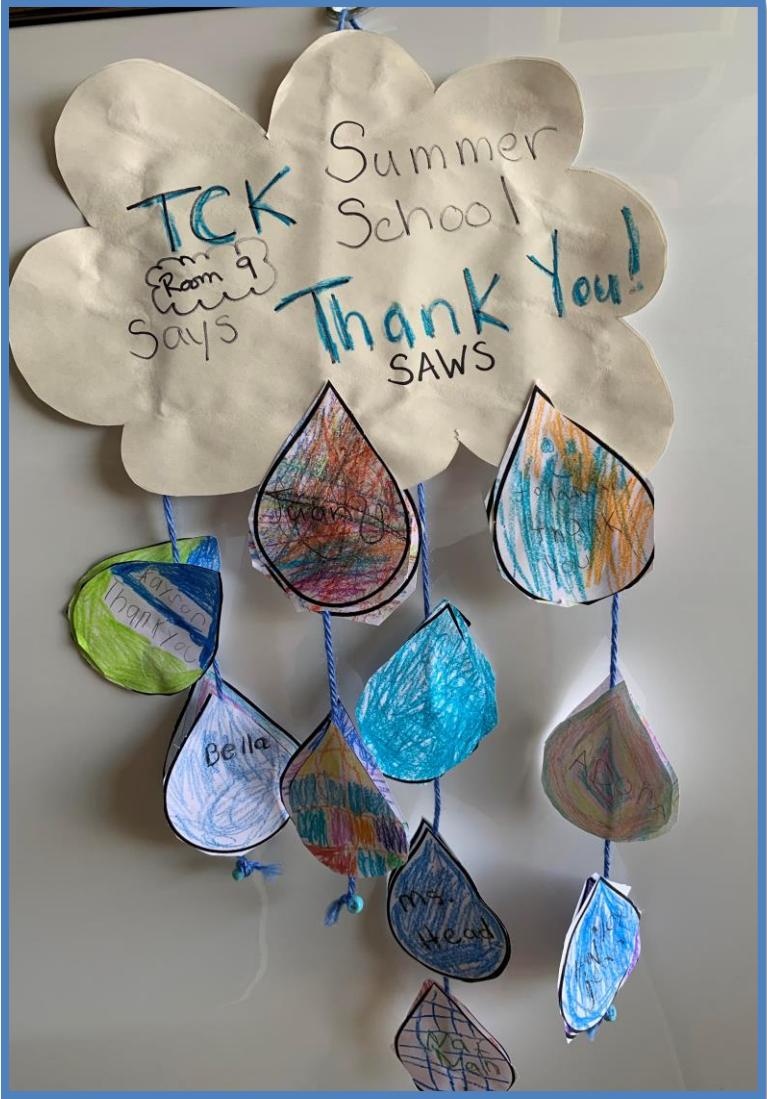
If campus access for the program continues to be restricted, the SAWS Water Education Program will again offer our distance learning program via Padlet, which includes virtual learning tools that can be used by teachers and delivery of supporting water education materials and supplies. Access to campus will be monitored and our in-class schedule will be implemented if/when normal classroom procedures resume.

THE 2021/2022 SAWS WATER EDUCATION PLAN

The SAWS Water Education Program is well known and has developed a devoted following among teachers in nearly every school in the Stockton service area. Educators often design lesson plans around our presentation curriculum. SAWS also provides classroom supplies and educational materials that teachers value. Keeping these goals in mind, the Coordinator will continue to work with the Department of Water Resources and SJCOE/CPEL to develop and implement virtual outreach programs that can be integrated into both classroom and distance learning curriculum. Using educational tools that are popular with teachers and used in distance learning (Padlet, EdPuzzle, Flipgrid, etc.), the Coordinator will use virtual learning tools, including videos, digital links and narrated water education vignettes and clips that

can be inserted into or used in conjunction with teachers' lesson plans. Teachers integrating SAWS virtual water education presentations into their curriculum will be supplied with related workbooks and worksheets to follow up on lessons, as well as pencils, crayons and other items they can use in the classroom or, if necessary, include in distance learning home packets.

While virtual learning may not be as effective as in-person instruction, our programs will be reinforced and enhanced by the virtual tools we develop for distance learning.



THANK YOU FROM TULLY KNOLES SUMMER SCHOOL

THE SAWS WATER EDUCATION PROGRAM

What We Do and How We Do It

Effectively Promoting Water Awareness and Conservation

It is well known that measuring the success of water conservation/education outreach is difficult. How much did the target audience learn? How many will actually embrace the message and act on it? Who will share the information with family and friends? Will those who participate make water conservation a life-long habit? Quantifying the results of these queries is nearly impossible, and under normal circumstances, water providers can only hope these efforts are making a difference. But in recent years California's response to prolonged drought produced evidence that water conservation education raises awareness and promotes wise water use, resulting in substantial, quantifiable water savings throughout the state. Water conservation education in the primary grades certainly plays a major role in these results, as it teaches conservation concepts as students are forming lifelong habits.

The SAWS Water Education Program strives to make students aware that wise water use must be practiced daily, helping them understand that a banner rainfall year, or even two, will not remedy California's water dilemma. Through our outreach, we hope to make our future citizens and leaders understand that, due to our dry climate, storage issues and population growth, water will continue to be a very important issue in California, and we must all be prepared to make water conservation a way of life. Especially now, as California is experiencing another dry year.

During the extreme drought years, state outreach and media messaging put an emphasis on water conservation in California, and that emphasis provided rare, tangible evidence of the effectiveness of outreach programs like ours. Stockton was one of the most successful cities in the state when it came to implementing conservation measures during the drought, reducing water use by nearly 30 percent. Since its inception in 2005, the Stockton Area Water Suppliers alliance has funded multi-faceted outreach in our communities, reaching thousands of students and citizens every year; the program has reached over 350,000 people through classroom presentations and public, youth-oriented events. Many of the students we have worked with over the years are now adult citizens of Stockton with a heightened awareness of the importance of our water resources because they participated in our programs when they were forming life-long habits in their youth. These are the people who have and will continue to practice conservation measures to aid in dealing with drought.

Is Stockton’s impressive success in meeting and exceeding water conservation goals during the last drought evidence of the success the SAWS agencies have had informing the public and changing their water use habits? It’s certainly possible! And it seems like a logical way to measure success.

We have found that the students and teachers we visit are still very drought aware. Even primary grade students can define the meaning of the word and the source of the problem. While media messaging may be responsible for heightened water awareness in our communities, our presentations take students to the next level, reinforcing the conservation message and providing insight into the reasons behind it. Our programs address the learning standards that relate to water for every grade level: the water cycle, weather, ecosystems, water’s three states of matter, the scientific properties of water, current and historic water use in California, water conveyance and distribution systems, and conservation concepts. We enhance learning with a variety of hands-on activities that make the lessons fun and memorable.

The SAWS In-Class Presentation Program is in High Demand

The SAWS in-class presentations continue to be in high demand in Stockton area schools. Invitations to book presentations for the 2020/2021 school year were sent to teachers and administrators via email in early May 2020. The presentation calendar was full before the end of the school year. While school closures due to the COVID-19 pandemic prevented implementation of our in-class presentation schedule, the SAWS Water Education Program developed a virtual learning portal and continued to reach our audience on-line. Hopefully, in-person learning will resume in the 2021/2022 school year.

The SAWS Water Education Program has developed a devoted following among Stockton teachers. Those familiar with the program often design their lesson plans with the SAWS Water Education Program in mind; the colorful visuals and hand-on activities featured in our presentations can bring lessons to life for students. Often, one teacher takes the lead to schedule multiple presentations for the entire grade level. Many teachers coordinate our grade-specific presentations with established curriculum and Next Generation Science Standards (NGSS), inviting the program to their classrooms in conjunction with units specifically related to water. Some schools even plan field trips that coordinate with our programs; St. Luke, Tully Knoles Elementary, John McCandless STEM, and several other schools coordinate our “California Water” presentation with fourth grade field trips to Columbia State Park. Fifth grade teachers are encouraged to book a water treatment plant tour/field trip in conjunction with our Grade 5 “Water Cycle: The Incredible Journey” presentation.

In-Class Presentations Meet Grade-Specific Standards

Every presentation offered by the SAWS Water Education Program is designed to meet standards specific to certain grade levels. Teachers know that our presentations can address multiple content standards/NGSS in 60-90 minutes with little or no teacher prep; we provide an excellent introduction or follow up to standard curriculum involving water for every elementary and middle school grade level.

Kindergarten and Grade 1 teachers can use our popular “Water Cycle Story” presentation to reinforce lessons about weather, states of matter, and forming and testing a hypothesis.

Grade 2 teachers often coordinate their lesson plans with our “H2O to Go!” presentation to reinforce standards related to gravity, motion and machines as students track water’s journey from source to tap using a variety of fun and exciting hands-on pumping activities.

Teachers of Grades 3, 4, 5 and 6 can use the “Water Matters” and “Water Cycle: The Incredible Journey” programs to target physical and life science content standards. The two presentations are similar but have



The “H2O to Go!” presentation reinforces second grade standards related to gravity, motion and machines through fun, hands-on activities

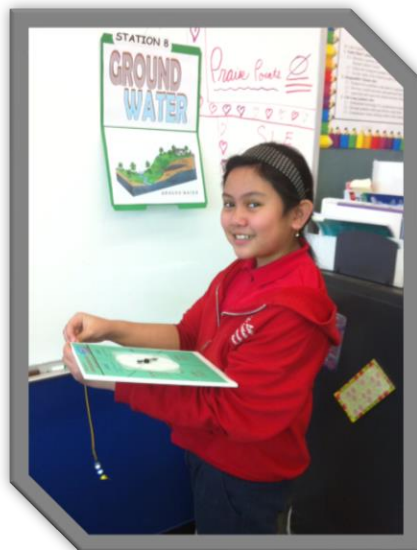
been adapted

for content/NGSS specific to each grade level. Both programs focus on the water cycle and water treatment and distribution, addressing a variety of science standards through fascinating facts and figures and a demonstration of the ratio of fresh to salt water on earth. During the “Water Matters” program, students perform a hands-on “scientific experiment” that demonstrates the properties of surface tension and cohesion, as well as concepts related to food chains and webs and

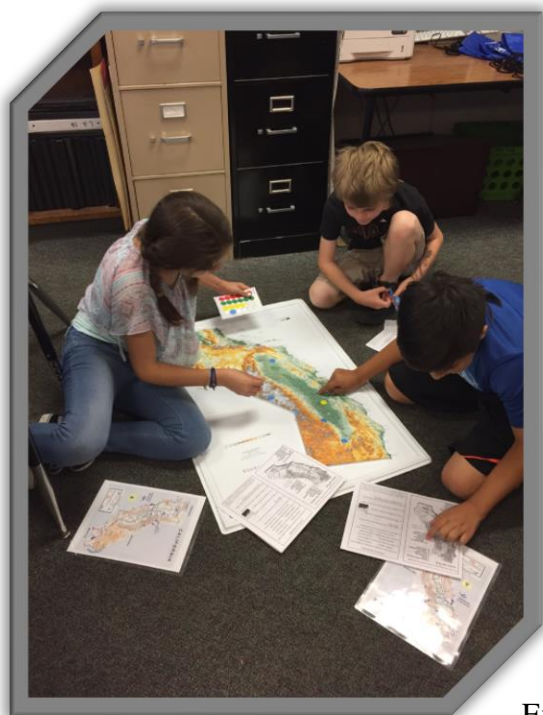


Mrs. Kelly explains how water is conveyed from the water treatment plant to water storage tanks and finally to our homes

environmental issues in our communities, standards specific to Grades 3 and 4. The “Incredible Journey” program addresses similar science standards for grades 5 and 6; after a refresher on the water cycle, students participate in an active, social game from Project WET, embarking on the “Incredible Journey” of a water molecule in the water cycle, evaporating, condensing and precipitating around the room as they make a beaded bracelet, with each bead representing a component and process of the water cycle. Both “Water Matters” and “Incredible Journey” also include a comprehensive “Source to Tap” diagram depicting how water travels from the natural water cycle to the built water cycle to their faucets at home. A scale model sand and gravel water filter demonstration gives students a glimpse of the processes involved in water treatment and distribution and provides information about local water sources and the agencies that sponsor the SAWS Water Education Program. Drought, conservation and water awareness is also discussed throughout the program.



Students become water molecules moving through the water cycle in the “Incredible Journey” hands-on activity



The “California Water” presentation, which covers the history, use and distribution of water in the State of California, is responsive to both fourth and sixth grade content standards and features a variety of hands-on activities, including map interpretation and a role-playing game designed to introduce students to the concepts of water rights and legislation relating to our natural resources. Students learn how water is distributed throughout the state via the State Water Project and work collaboratively to find water bodies, cities and landmarks on topographical maps.

Every student in every classroom we visit receives a pre-sharpened water-saver pencil and an age-appropriate workbook with information and activities

pertaining to water conservation and awareness. As a thank you for inviting us to present, participating teachers receive a variety of gifts, that may include tote bags, magnetic clips, seed packets, water activity guides, sponges, pocket hand sanitizers, white board markers, crayon packs and other items.

The SAWS Water Education Program only distributes promotional items that are practical and useful in the classroom.

There is evidence that as Stockton’s educational resources have diminished, our water education presentations have steadily gained favor. Teachers find value in our ability to connect content standards/NGSS to water resources, the environment, conservation and, recently, current events, such as drought and water legislation in California. The combination of education and entertainment we provide makes learning exciting and fun for students. We like to remind teachers that, despite budget cuts, students can still experience the benefit of community learning because SAWS sponsors in-class programs that “bring the field trip to the classroom.”



Our message is reinforced through the use of colorful visuals, songs, physical activity and audience participation

Water Treatment Plant Tours

When the SAWS Water Education Program visits middle/ high school and college classrooms (Grade 5 and up), we encourage teachers to schedule a visit to the Dr. Joe Waidhofer Drinking Water Treatment Plant for a facility tour. When elementary and middle-school classes visit, we ask that the groups include at least one parent/adult chaperon for every five students. While the main purpose for this request is crowd control, we have



Plant Supervisor Jim Wunderlich explains the water treatment process to fifth grade students during a tour of the Dr. Joe Waidhofer Drinking Water Treatment Plant

found that parents touring the plant often learn more than their children do, and invariably leave with a greater appreciation for their community's water resources. College classes and community groups are fascinated by and impressed with our facilities and the treatment process; most citizens never take the time to consider the source and systems that provide them with drinking water. While school districts often lack funding for field trip transportation, some public and private schools are able to visit by using adult/parent chauffeurs and chaperons. Facility tours are valuable in raising public awareness and can provide an enlightening experience for students and community members, as well as those looking for career path possibilities.

After School Program

The "H2Olympics" program is offered to any school with a Stockton address and can serve as an after-school program, a booth at school festivals and events, or as a hands-on activity presentation to serve an entire grade level. The program features a series of fun, hands-on water activities or "experiments" that demonstrate scientific properties of water, including cohesion, adhesion and surface tension: *How many water drops can you fit on the head of a penny? Can you make a paperclip float? Can you keep a water drop intact while guiding it through a laminated maze?*



Mrs. Kirchhof explains surface tension to fourth-grade students at Tully Knoles Elementary during a hands-on activity included in the "SAWS H2Olympics" after school presentation.

The format of the H2Olympics program allows students to have fun while learning in a relaxed, non-classroom atmosphere. As with other SAWS Water Education Programs, we have incorporated a drought/conservation discussion into the “H2Olympics” program format, and, depending on the venue, sometimes include a prize wheel or “water saver” button-making activity.

Third grade students and their teacher learn about the cohesive properties of water during an “H2Olympics” presentation at the Great Valley Elementary School Farm Day Event



Benefits of the SAWS H2Olympics Programs Include:

- ◆ Hands-on activities educate and entertain
- ◆ Format holds students’ attention because it provides an alternative to classroom learning structure
- ◆ Students are likely to take message home
- ◆ Parents often show up at after school programs and may even participate
- ◆ Broad outreach to multiple grade levels (K-8): maximum contacts in minimum amount of time
- ◆ Use of upper elementary and middle school helpers allows older students to work with/teach younger students: excellent learning environment for all
- ◆ Provides teachers, facilitators and activities coordinators with free, appropriate educational activities

AgVenture



As part of the SAWS Water Education Program activities at AgVenture, students make personalized “I’m a Water Saver!” buttons

Every third grader in San Joaquin County is eligible to participate in this innovative program sponsored by San Joaquin Farm Bureau and Select San Joaquin Foundation. AgVenture participants enjoy a day of fun while learning about the vast diversity of agriculture in San Joaquin County. This event exposes students to important concepts during their “day on the farm,” including nutritional values, agronomics, marketing, farm and crop production, the value of locally grown products and the role that producers, vendors and the purveyors of our natural resources play in bringing these commodities to the community.

AgVenture’s unique format offers a meaningful and memorable experience for students and a special opportunity for the agricultural community to reach out to some of our most impressionable citizens. SAWS participation in these events allows us to promote our in-class, after school and assembly programs while sharing our message of water awareness and conservation with thousands of third graders and their teachers. Each of the three San Joaquin County AgVenture events hosts approximately 3,500 third graders.

Since 2010, the Stockton Area Water Suppliers alliance, through SEWD, has donated \$1,000 annually to AgVenture to help sustain this valuable program.

Zun Zun “Water Beat” Assemblies

Stephen Snyder and Gwynne Snyder Cropsey are “Zun Zun,” a performing arts troupe that celebrates the environment through water-themed, interactive musical assemblies.



ZunZun

ZunZun's “Water Beat” assembly highlights the connection of the community to its watershed, focusing on water conservation and resource protection. In this 45-minute program, Zun Zun performs a number of skits using musical instruments, song and dance, audience participation and humor for a truly memorable show. Topics covered include drought, water conservation, watershed protection, water reclamation, and water pollution. Students and teachers are encouraged to participate, playing unique “water instruments” from around the world, joining in the Sprinkler, Swimmer, and Washing Machine dances and singing the

“Save Some Water” song. Audience members are invited on stage to participate in hilarious activities like the “Toilet Game Show,” where students learn that fixing a leaking toilet may be the single greatest way to save water at home. Students do the Drought Limbo and participate in a crazy race that explains the purpose of storm drains and the potential threat of storm water pollution. Participants leave the assembly singing, dancing and chatting about the many facets of water covered in the performance.

In a normal year, the SAWS Water Education Program sponsors up to two Zun Zun assemblies in each of five to seven Stockton area elementary schools.

The SAWS “Conservation Cottage” Exhibit at the Children’s Museum of Stockton

The Children’s Museum of Stockton is currently operating under the management of its Board of Directors. The facility has been mostly closed due to COVID-19. The Coordinator works with museum personnel on a continuing basis to maintain and improve the exhibit.

SAWS Water Education Program and the Community

The SAWS Water Education Program participates in and supplies hand-outs and materials for numerous community gatherings and other special activities and events in Stockton. The following is a list of some of the community events the SAWS Water Education Program participates in regularly:



The “Waterburger” at the Children’s Museum

- ◆ **San Joaquin County AgVentures (South County, Stockton & Lodi)**

The SAWS Water Education Program has participated in AgVenture since 2005. During physical events, SAWS staffs a booth featuring a hands-on activity and prize wheel. Our participation in AgVenture allows us to promote SAWS sponsored in-class, after school and assembly programs while sharing our message of water awareness and conservation with thousands of third grade students and their teachers. Each AgVenture event hosts approximately 3,500 third graders. Besides staffing a booth at each event, SAWS/SEWD supports AgVenture with a \$1,000 annual donation. All three AgVenture events were held virtually in 2021. The Coordinator submitted a water science/conservation video that was used during virtual AgVenture and posted on-line for future viewing.



- ◆ **Rotary Read-In:** The SAWS Water Education Program always participates in this annual event. In 2021, the Read-In was virtual. The Coordinator read the book, “Why Should I Save Water?” on video and submitted it to the Rotary for distribution to schools in the Stockton Area.
- ◆ **Lincoln USD “Window on Your Future”:** The Coordinator participates in this event annually, wherein mock job interviews designed to prepare Lincoln High School students for entry into the job market are conducted by members of the business community. This event presents an opportunity for staff to share career path outreach with potential job seekers. This event was canceled in 2021 due to COVID-19.
- ◆ **Manteca Unified School District’s Farm Days:** In a normal year, SAWS sponsors H2Olympics booths at these MUSD Farm Day events. These events were canceled in 2021 due to COVID-19.
- ◆ **Stockton’s Earth Day Festival:** In a normal year, SAWS is a principle sponsor of this popular annual festival at Victory Park in Stockton. Due to COVID-19, the 2020 and 2021 Stockton Earth Day Festivals were canceled.
- ◆ **Water Treatment Plant Tours:** In a normal year, the SAWS Water Education Program and SEWD staff will host tours of the Dr. Joe Waidhofer Drinking Water Treatment Plant for Grade 5 and above.
- ◆ **Community Based Programs:** Upon request, SAWS supplies water conservation materials for Special Day and science classrooms at local middle and high schools as well as for programs for developmentally disabled adults, regional pre-school programs, and other community programs requesting materials and resources.
- ◆ **DWR Water Education Committee:** The Coordinator attended virtual meetings of the DWR Water Education Committee in 2020 and 2021, joining water educators from all over California to share resources and ideas for water conservation education and outreach. The focus this year was on virtual outreach to coordinate with distance learning.
- ◆ **CPEL:** The Coordinator participated in the San Joaquin County Office of Education’s (SJCOE) formation of the Community Partners for Environmental Literacy (CPEL), a collaboration of local educators working toward effective environmental outreach, both physical and virtual. CPEL/SJCOE often sponsors virtual seminars to teach environmental educators to use distance learning teaching tools, including Padlet, EdPuzzle and Flipgrid, and to promote networking among environmental educators in San Joaquin County.

Program Administration

Kristin Coon (Kristin Coon Consulting) is responsible for administration of the SAWS Water Education Program. This includes hiring and supervision of employees, payroll, payroll taxes, worker’s compensation and liability insurance, subcontractor negotiations/compensation, scheduling and all other aspects of program operations, including implementation of in-class and virtual learning programs. The approved program budget for 2021/2022 went into effect on April 1, 2021, and the contract between SEWD and Kristin Coon Consulting is currently in effect from August 1, 2021 through July 31, 2022.

Staffing

In the 2020/2021 school year, under the supervision of Kristin Coon Consulting, the SAWS Water Education Program continued to serve the SAWS alliance, providing virtual and in-class water education outreach for Stockton area schools. Coordinator Kristin Coon developed a virtual outreach program, offered the program to teachers and administrators, organized, prepared, scheduled and delivered virtual learning supplies and supporting materials to Stockton area schools, and managed the day-to-day business of the Water Education Program. Mrs. Kathy Kirchhof was retained as a classroom instructor and assisted Coordinator Kristin Coon with preparation and distribution of virtual learning supplies and materials. When the statewide shutdown of schools occurred in mid-March 2020 and all scheduled presentations were cancelled, Kristin Coon Consulting continued to pay classroom instructors based on an average of the previous year's compensation. Mrs. Kelly recently moved out of state, and a new classroom instructor, Mrs. Sue Daugherty, was hired in anticipation of returning to the classroom in the 2021/2022 school year. Mrs. Daugherty participated in the Lincoln School District's summer sessions for training. The SAWS Water Education Program is scheduled to physically present in all four districts in the coming year starting August 17, 2021. However, the schedule is currently on hold due to the resurgence of COVID-19 and possible campus access restrictions for community partner programs in Stockton area schools.

Looking Ahead: The Coming School Year

While the SAWS Water Education Program is scheduled and fully booked through the 2021/2022 school year for classroom presentations, the schedule is currently on hold due to the resurgence of COVID-19 and possible campus access restrictions for community partner programs in Stockton area schools.

If campus access restrictions for community partner programs continue into the school year, the SAWS Water Education Program will offer teachers virtual learning options along with delivery of related materials and classroom supplies. The SAWS Water Education Program is well known and has developed a devoted following among teachers in nearly every school in the Stockton service area. Educators often design lesson plans around our presentation curriculum. SAWS also provides classroom supplies and educational materials that teachers value. Keeping these goals in mind, the coordinator will continue to work with the Department of Water Resources and SJCOE/CPEL to develop and implement virtual outreach programs that can be integrated into both classroom and distance learning curriculum.

Using educational tools that are popular with teachers and used in distance learning (Padlet, EdPuzzle, Flipgrid, etc.), the Coordinator will use virtual learning tools, including videos, digital links and narrated water education vignettes and clips that can be inserted into or used in conjunction with teachers' lesson plans. Teachers integrating SAWS virtual water education presentations into their curriculum will be supplied with related workbooks and worksheets to follow up on lessons, as well as pencils, crayons and other items they can use in the classroom or, if necessary, include in distance learning home packets.

While virtual learning may not be as effective as in-person instruction, our in-class programs will be reinforced and enhanced by the virtual tools we develop for distance learning.

For 2021/2022, Mrs. Kirchof has committed to another school year, and Mrs. Daugherty is looking forward to her duties in the classroom as well. As before, the instructors will share classroom presentation duties equally with Mrs. Coon providing backup. However, this arrangement may be affected by COVID-19 school closures and restrictions.

Mrs. Coon will continue to manage the Water Education Program, including virtual learning program development and implementation, payroll, finances, scheduling and working with SEWD, the Urban Contractors, schools and other water agencies to disseminate effective water education to Stockton area schools and communities. When our schools return to traditional classroom learning, the SAWS Water Education Program will return to the classroom.

Conclusion

As we embark upon our 17th year serving SAWS and Stockton area schools, the SAWS Water Education Program staff is proud to say that our outreach programs are well-known and respected in the community. Our presentations reach significant numbers of students and community members with a variety of programs, and we participate in many high-profile youth oriented local events.

In the 2020/2021 school year, the SAWS Water Education reached 10,756 students through classroom, assembly, and special event programs, both virtual and in-person. The feedback from teachers and administrators is testament to the fact that we have excellent presenters who are adept at sharing knowledge of and enthusiasm for our water resources; we are invited back to schools and events year after year because the programs we offer are a valuable resource for Stockton area schools and the community. At this writing, the program is already fully booked through June 1, 2022.

The SAWS Water Education Program is endorsed and approved by the Stockton, Lincoln, Lodi and Manteca school districts as well as a variety of charter and private schools in the Stockton metropolitan area. The program is also sanctioned by the San Joaquin County Office of Education. Our success is evidenced by the numbers: teachers participate enthusiastically year after year and demand for presentations exceeds availability. The most effective tool for program sustainability remains teacher-to-teacher recommendations; we continue to visit new teachers and schools each year, and our loyal followers recommend us to their colleagues and take us along when they move to new schools. Teachers often coordinate our presentations with their lesson plans and many use our outreach programs to enhance field trip experiences. This promotes a comprehensive learning approach, which is a major component of the overall plan: when we make multiple contacts, seeing students year after year, we are building a broad knowledge base that will make water conservation and awareness second nature for those residing in our communities, ultimately helping us achieve our goal of promoting effective, community-wide water conservation and awareness in Stockton. Evaluations from both teachers and students are always enthusiastic and positive (see Feedback section), and support for the program remains strong because it reinforces grade specific content/common core/NGSS standards, coordinates seamlessly with curriculum, and provides a hands-on, memorable learning experience for students.

Teacher feedback and student comments and illustrations are provided in the Feedback section of this report.

Teacher Feedback on the SAWS Water Education Virtual Learning Program

Teacher Feedback is key to enhancing and improving our programs



Thank you Stockton Area Water Suppliers (SAWS)! From Mrs. Rugani's Second Grade Class at Commodore Stockton Skills School!

Mrs. Rugani's class participated in the SAWS Water Education Virtual Learning Program using Padlet. Take home materials included a lesson on the water cycle and a water cycle bracelet kit for each student.

Mrs. Rugani and her students did the lesson and made their bracelets together on Zoom.

Some feedback from teachers who used the SAWS Water Education Virtual Program:

Hi Kristin

Thank you once again for the Kindergarten water presentation, and materials. We finished it today. It took us 2 days to get through it all. The children loved it! We saved the bracelet until the end. The water cycle bracelet was a hit. They were so excited and enjoyed every part of it - it was perfect. Looking forward to next year. Thanks again!

Christina Sandoval, August Elementary

Hi Kristin

Thank you for an awesome water presentation through Padlet! My kiddos love the bracelets! Everything went so very well!

Thanks,

Kim Almarez, SUSD

Hi Kristin,

We wanted to let you know that the Padlet is awesome and easy to use. We are incorporating that with our science lessons as well as sending home the materials at our next "drive thru" so we can do those as well.

Thanks for all your hard work!

Suzanne and team (TCK)

Hi Kristin,

Oh! I did the SAWS lesson before I left for maternity leave! My students loved the activity book, were VERY engaged while reading/watching about the water cycle and were able to put the bracelet together in the correct order by the end! Just thought I'd pass this along 🙌

Thanks!

Stefanie Copriviza, SUSD

Hi Kristin,

I Received the bag of goodies. The students will love doing all these fun activities. Thanks!

Mrs. Rivera

1st Grade, George Komure



The SAWS Water Education Virtual Program
is offered to teachers on Padlet

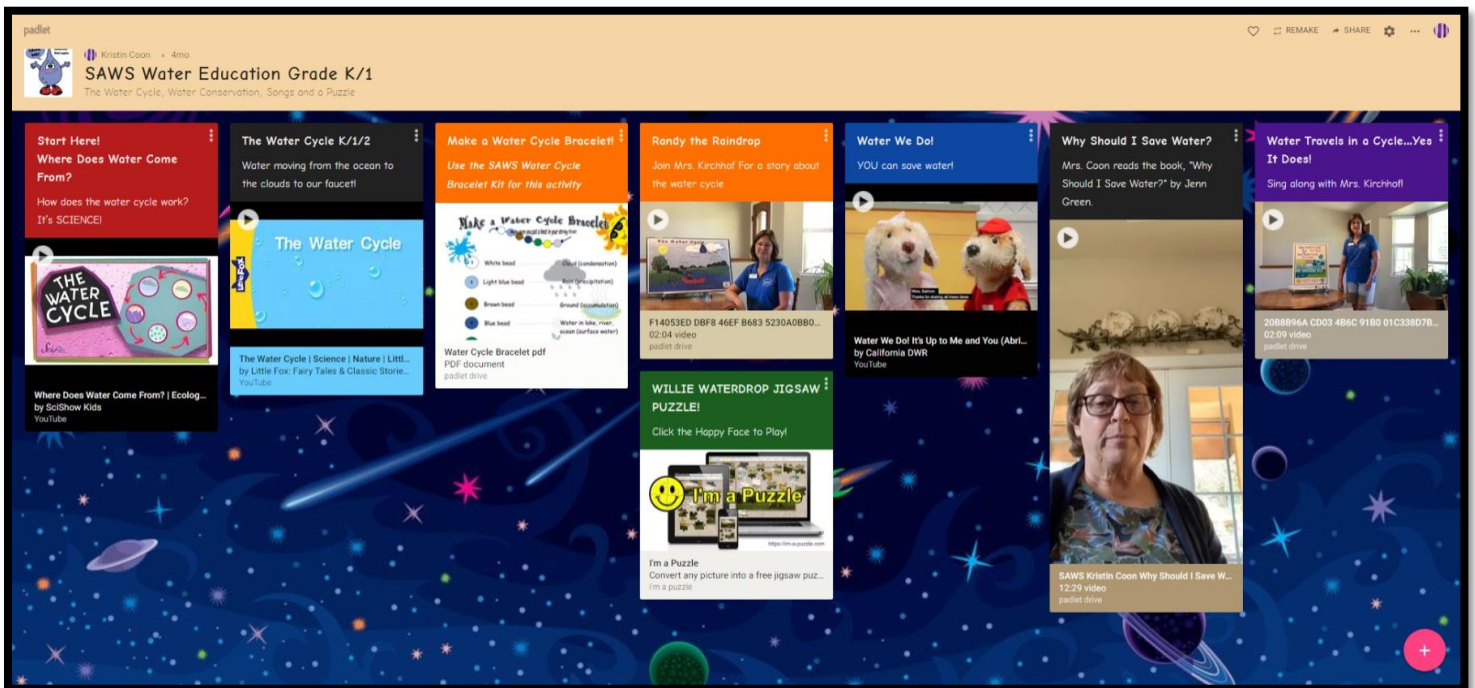
What is Padlet?

Padlet is a digital tool that can help teachers and students in class and beyond by offering a single place for a notice board. This digital notice board features images, links, videos, and documents, all collated on a "wall" that can be made public or private.

The SAWS Water Education Virtual Program offers four Padlets to teachers:

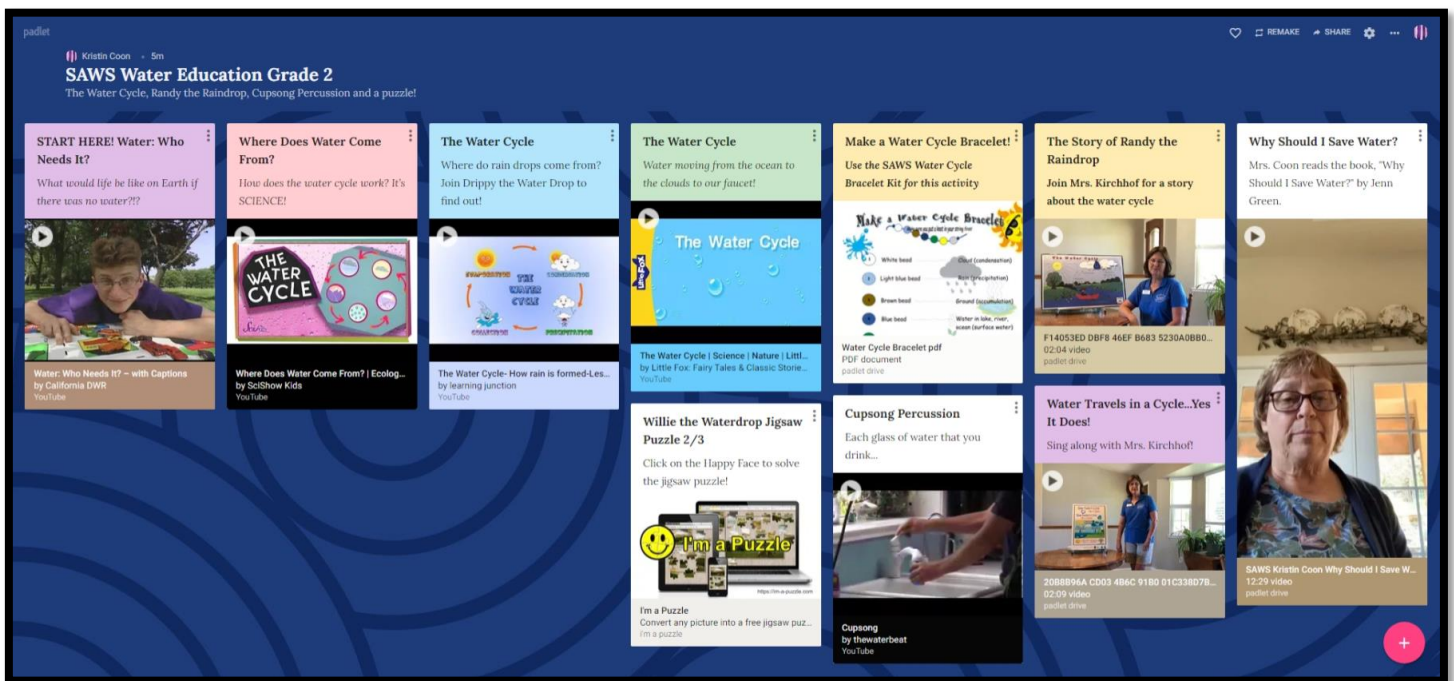
Kindergarten/Grade 1 Padlet

The K/1 Padlet offers two water cycle videos, Mrs. Kirkhof reading the story of Randy the Raindrop and singing "Water Travels in a Cycle," a water conservation video, instructions for making a water cycle bracelet, a jigsaw puzzle, a video of Mrs. Coon reading the book "Why Should I Save Water?" and instructions for making a water cycle bracelet from the kits supplied by SAWS.



Grade 2 Padlet

The Grade 2 Padlet offers two water cycle videos, a water source video, DWR’s “Water Who Needs It?” video, “Cupsong Percussion,” a catchy tune by Zun Zun, Mrs. Kirkhof reading the story of Randy the Raindrop and singing “Water Travels in a Cycle,” a jigsaw puzzle, a water conservation video, a video of Mrs. Coon reading the book “Why Should I Save Water?” and instructions for making a water cycle bracelet from the kits supplied by SAWS.



Grade 3 Padlet

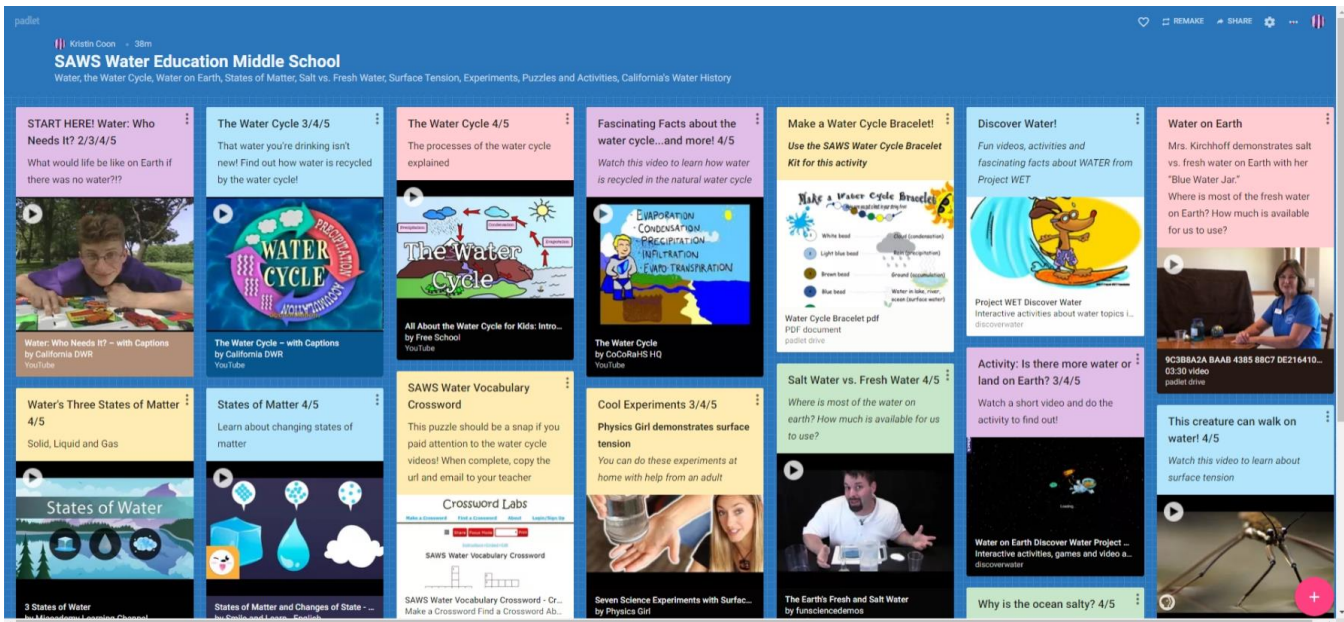
The Grade 3 Padlet offers two water cycle videos, a water source video, DWR's "Water Who Needs It?" video, "Cupsong Percussion," a catchy tune by Zun Zun, Mrs. Kirkhof discussing water on earth, a rap song about rain, a link to Project Wet's "Discover Water" page, a video of Science Girl doing several "cool experiments" with water, a jigsaw puzzle, a video from PBS explaining how surface tension makes it possible for water striders to "walk" on water, and instructions for making a water cycle bracelet from the kits supplied by SAWS.

The Padlet board, titled "SAWS Water Education Grade 3" by Kristin Coon, features a corkboard background with several resource tiles. The tiles include:

- START HERE! Water: Who Needs It?**: A video overview of water's importance and conservation.
- The Water Cycle**: A video explaining the water cycle with a circular diagram.
- Make a Water Cycle Bracelet!**: Instructions and a diagram for creating a water cycle bracelet using colored beads.
- States of Matter**: A video about changing states of matter with a diagram of a water droplet.
- Water on Earth**: A video by Mrs. Kirkhof demonstrating salt vs. fresh water.
- This creature can walk on water!**: A video about water striders and surface tension.
- Blue Planet Activity: Is there more water or land on Earth?**: An interactive activity with a globe.
- Water: Who Needs It? - with Captions**: A video with captions by California DWR.
- The Water Cycle - with Captions**: A video with captions by California DWR.
- Water Cycle Bracelet pdf**: A PDF document for the bracelet activity.
- States of Matter and Changes of State**: A video by Smile and Learn.
- 9C3B8A2A BAAB 4385 8BC7 DE21641D...**: A video link from the Project WET website.
- This Is Why Water Striders Make Terribl...**: A video by Deep Look.
- Water on Earth Discover Water Project ...**: A video link from the Project WET website.
- Willie the Waterdrop Jigsaw Puzzle 2/3**: A jigsaw puzzle activity.
- RAIN**: A rap song about rain.
- Discover Water!**: A video with activities and facts about water from Project WET.
- Cool Experiments**: A video demonstrating surface tension experiments.
- Cupsong Percussion**: A video about percussion using water.
- I'm a Puzzle**: A tool to convert a picture into a jigsaw puzzle.
- water cycle rap "make it Rain"**: A rap song by chane burke.
- Project WET Discover Water**: A video with interactive activities about water.
- Seven Science Experiments with Surfac...**: A video by Physics Girl.
- Cupsong by thewaterbeat**: A video by thewaterbeat.

Grade 4/5/6 Middle School Padlet

The Middle School Padlet offers two water cycle videos, a water source video, DWR’s “Water Who Needs It?” video, a video with fascinating facts about the water cycle, Mrs. Kirkhof discussing water on earth, two videos about water’s three states of matter, a water vocabulary crossword puzzle, a link to Project Wet’s “Discover Water” page, a video of Science Girl doing several “cool experiments” with water, a video explaining the difference between salt and fresh water, a video from PBS explaining how surface tension makes it possible for water striders to “walk” on water, and instructions for making a water cycle bracelet from the kits supplied by SAWS.



The Padlet Kits Supplied by SAWS

Teachers participating in the SAWS Virtual Water Education Program are supplied a “bag of goodies,” supplies and materials to share with students that complement the videos and activities on the SAWS Padlets, along with a few items for their classroom. The Coordinator and Water Education Instructors deliver the materials and supplies after sending teachers information about and links to the appropriate Padlet.



SAWS Water Education Program
Students Participating: All Outreach Programs, All Providers
Comparison by School Year (SY)

In-Class/Assembly	School Year / # of Students															
	SY 05/06	SY 06/07	SY 07/08*	SY 08/09*	SY 09/10*	SY 10/11*	SY 11/12*	SY 12/13*	SY 13/14*	SY 14/15*	SY 15/16*	SY 16/17*	SY 17/18*	SY 18/19*	SY 19/20*	SY 20/21*
SAWS Water Ed Prog	8044	12357	15344	18293	18838	18915	21345	19748	26320	23538	24350	18670	22438	23980	16111	8373
Assembly Program	<u>3002</u>	<u>11452</u>	<u>9925</u>	<u>13989</u>	<u>4459</u>	<u>4660</u>	<u>6085</u>	<u>4731</u>	<u>5934</u>	<u>4730</u>	<u>5736</u>	0	<u>2725</u>	<u>2151</u>	<u>658</u>	<u>2383</u>
Totals:	11046	23809	25269	32282	23297	23575	27430	24479	32254	28268	30086	18670	25163	26131	16769	10756

*** See notes on Assembly Program below**

SY 07/08: 46 GWM assemblies performed in the 2007/2008 school year covered under the 2007/2008 agreement with SYRCL. One presenter (KC)

SY 08/09: 54 GWM assemblies performed in the 2008/2009 school year covered under the 2007/2008 agreement with SYRCL. Two Presenters (KC & SW)

SY 09/10 & 10/11: 15 Zun Zun assemblies performed in 09/10 and 10/11 school years covered under agreement with Zun Zun. Three presenters (KC, SW & CT)

SY 11/12: 18 Zun Zun assemblies performed in 11/12 covered under agreement with Zun Zun. Three presenters (KC, SW & MQ)

SY 12/13: 14 Zun Zun assemblies performed in 12/13 covered under agreement with Zun Zun. Two presenters (KC & MQ)

SY 13/14: 15 Zun Zun assemblies performed in 13/14 covered under agreement with Zun Zun. Three presenters (KC, MQ & SK)

SY 14/15: 14 Zun Zun assemblies performed in 14/15 covered under agreement with Zun Zun. Three presenters (KC, MQ & SK)

SY 15/16: 15 Zun Zun assemblies performed in 15/16 covered under agreement with Zun Zun. Three presenters (KC, MQ & SK)

SY 16/17: Zun Zun assembly program was not funded by SAWS. Three presenters through 12/16 (KC, MQ, SK), two presenters Jan-July 2017 (KC, SK)

SY 17/18: Zun Zun assembly program funding partially restored by SAWS. 9 Zun Zun assemblies performed in 17/18 covered. Three presenters (KC, SK & KK)

SY 18/19: 6 Zun Zun assemblies performed in 18/19. Three presenters (KC, SK, KK)

SY 19/20: 1 Zun Zun assembly performed in 19/20. Three presenters (KC, SK, KK), schools closed mid-March 2020 due to COVID19

SY 20/21: 4 Zun Zun assemblies performed in 20/21 (virtual only). Two presenters (KC, KK), one contractor (Zun Zun). Schools closed entire 20/21 school year due to COVID19; all outreach was virtual. In-class presentations for 2021 Summer School only.

**SAWS Water Education Program Presentation/Event Breakdown
School Year: 2020/2021**

By Presentation Type

Presentation Type	# of Presentations	# of Students or	%
Classroom Presentations	8	257	2%
Virtual Program	182	4366	41%
Assembly Program	4	2383	22%
Water Treatment Plant Tours	0	0	0%
Water Conservation Workshops	0	0	0%
Career Workshops	0	0	0%
Children's Festivals / Events	1	3750	35%
After School Program / Other	0	0	0%
Totals	195	10756	100%

By Grade

Grade	Clsrms	Students	%
K	82	583	5%
Gr 1	32	761	7%
Gr 2	37	851	8%
Gr 3	53	1268	12%
Gr 4	10	274	3%
Gr 5	30	886	8%
Middle School	0	0	0%
Aftersch	0	0	0%
Event/Other**	5	6133	57%
	249	10756	100%

By Water Provider

Provider	Students	%
Cal Water	2094	19%
City of Stockton	4228	39%
Unincorporated/SJ County	684	6%
All **	3750	35%
	10756	100%

By Presenter

Presenter	Venues/ Classrooms	Students/ Citizens	%
Kristin Coon	121	6618	62%
Kathy Kirchof	70	1755	16%
Zun Zun	4	2383	22%
	191	10756	100%

By School District

District	Students	%
Stockton USD	1924	18%
Lodi USD	2412	22%
Lincoln USD	1331	12%
Manteca USD	1165	11%
Aspire/Charter	147	1%
Private	27	0%
All/Other**	3750	35%
	10756	100%

Total Schools/Venues 20/21

44

** Students or children reached through city or county wide events: unable to determine district, provider, or grade