This presentation premiered at WaterSmart Innovations

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INNOVATIONS

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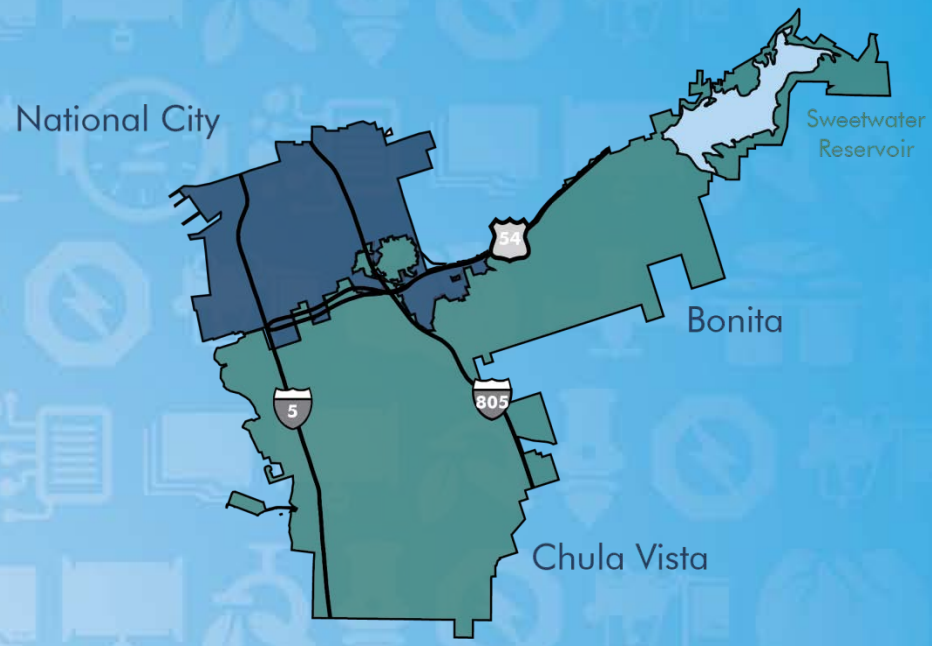
SWEETWATER AUTHORITY

CHULA VISTA ELEMENTARY SCHOOL DISTRICT

ESTABLISHED 1956 OTAY WATER DISTRICT

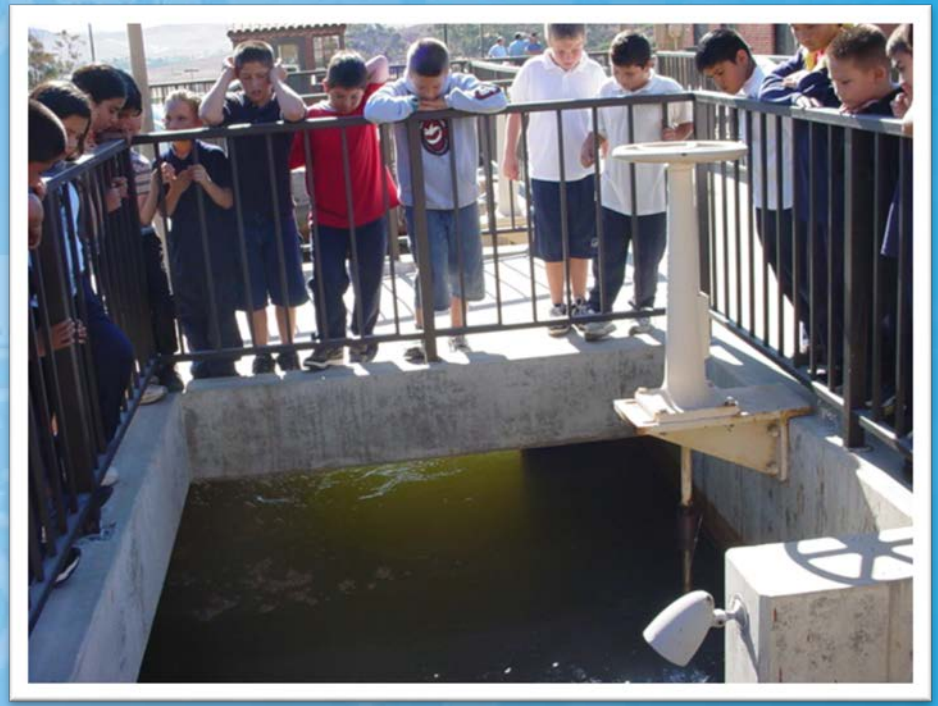
About Us



- Safe, reliable water since 1977
- 32 square mile service area
- 190,000 customers
- 2 dams, 2 reservoirs, 20 storage tanks, and 17 pump stations
- Surface water treatment, groundwater desalination, freshwater wells and imported water

Sweetwater Authority Education Programs

- Previous programs
- Changes in education standards
- Community partners



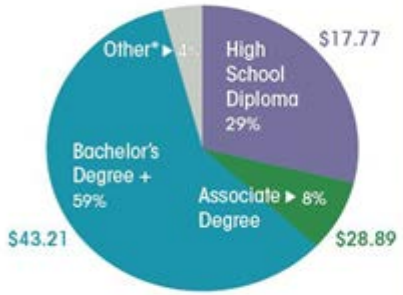
Innovation Station

Information & Communication Technologies

A PRIORITY SECTOR IN SAN DIEGO COUNTY

Information and Communication Technologies (ICT) is a sector focused on the collection and transmission of information over a variety of platforms, using multiple coding languages. Fact: Programmers and developers are in particularly high demand.

Jobs & Median Wages by Educational Attainment



*Some college ($22.18) or post-secondary non-degree award ($17.87)

Top 5 In-Demand Jobs + Median Wages

1. Application Developers $46.81
2. Sales Representatives $26.20
3. System Software Developers $52.58
4. Computer System Analysts $40.29
5. Administrative Assistants $17.94

Knowledge, Skills & Abilities (KSAs)

K Computers, electronics, engineering, technology

S Analysis, critical thinking, systems evaluation, monitoring

A Fluency of ideas, mathematical reasoning, information ordering

workforce.org/reports | #SDPrioritySectors

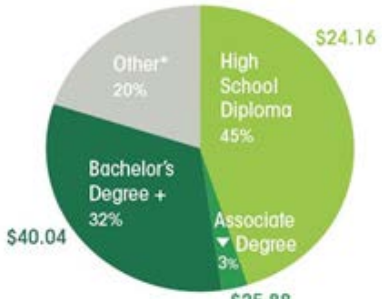
Energy Station

Clean Energy

A PRIORITY SECTOR IN SAN DIEGO COUNTY

The Clean Energy sector represents a broad set of activities from retrofitting buildings to accounting greenhouse gas emissions. Fact: 85.7% of Clean Energy companies in San Diego specialize in solar power as their primary renewable technology.

Jobs & Median Wage by Educational Attainment



*Less than high school diploma ($12.65), some college ($22.90) or post-secondary non-degree award ($26.91)

Top 5 In-Demand Jobs + Median Wages

1. Sales Representatives $24.40
2. Energy Auditors $34.00
3. Electricians $26.01
4. Plumbers $24.80
5. Heating & Air Conditioning Mechanics & Installers $22.12

Knowledge, Skills & Abilities (KSAs)

K Sales, marketing, design, customer service

S Persuasion, critical thinking, troubleshooting, quality control

A Flexibility, oral & written communication, dexterity

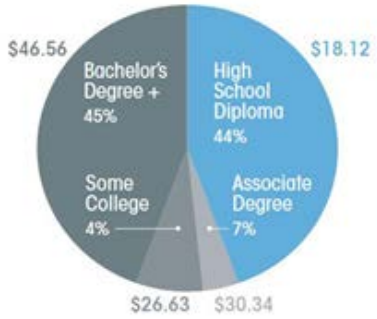
workforce.org/reports | #SDPrioritySectors

Hydro Station

Blue Economy

This sector employs everyone who works on water-related issues, from divers to engineers. It impacts manufacturing, military, tourism and many other industries. Fact: San Diego's Blue Economy includes more than 1,400 local companies.

Jobs & Median Wages by Educational Attainment



Top 5 In-Demand Jobs + Median Wages

1. Maintenance & Repair Workers $18.18
2. Biological Technicians $22.51
3. Electrical Engineers $56.05
4. Plumbers & Pipefitters $26.22
5. Marine Engineers $42.11

Knowledge, Skills & Abilities (KSAs)

K Management, construction, electronics, design, math, engineering

S Active listening, critical thinking, time management, systems analysis

A Information ordering, reasoning, written comprehension and expression

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Hydro Station Experience

- 5 hour, one-day experience
- World of Work
- Hands-on learning opportunities

World of Work: Industry Connections

Blue Economy

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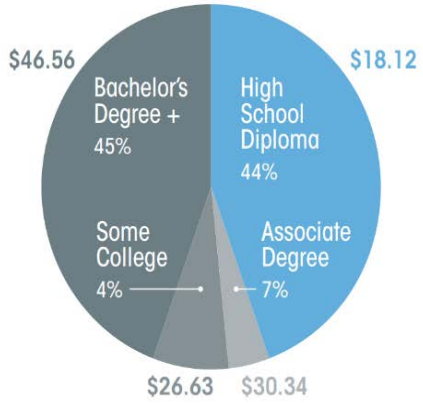
Jobs & Median Wages by Educational Attainment



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Knowledge, Skills & Abilities (KSAs)

K Management, construction, electronics, design, math, engineering

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A Information ordering, reasoning, written comprehension and expression

The industry employs diverse skillsets and includes a variety of occupations.

WORKING IN WATER

OCCUPATIONS THAT SUPPORT SAN DIEGO'S WATER INDUSTRY

San Diego's water industry provides career opportunities across all levels of educational attainment.

More than **2,800** people work in the water and wastewater sector at the Water Authority and its 24 member agencies.

EDUCATIONAL PIPELINE FOR SAN DIEGO'S WATER INDUSTRY

» *San Diego's colleges & universities offer 58 water-related academic programs, including:*

WATER & WASTEWATER TECHNOLOGY PROGRAM
Cuyamaca College & Palomar College

This two-year academic program provides pre-employment training as well as advanced courses in water and wastewater technology for students seeking certification for careers as water or wastewater operators.

WATER MANAGEMENT & LEADERSHIP
CSU San Marcos

This intermediate-level certificate program is open to the general public but is geared toward water agency employees who wish to advance their supervisory skills and knowledge.

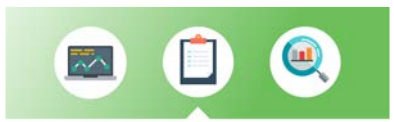
REGIONAL WATER & WASTEWATER INTERNSHIP PROGRAM
San Diego County Water Authority & member agencies

Since 2006, the Water Authority – in partnership with its member agencies – has provided over 150 paid internships that teach technical skills required to operate and maintain water and wastewater systems, with around 80 percent earning full-time positions.

World of Work: Strengths

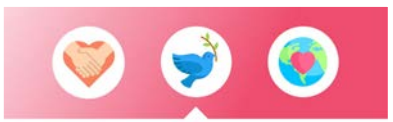
Academic

You are intelligent, have good memory, are organized and get things done.



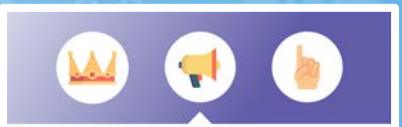
Analytical

You work through problems by breaking them down into many steps. You are rational and detail oriented!



Appreciation

You are thankful for what you have. You see the good in others and are humble.



Assertiveness

You are confident! You stand up for what's right and speak your mind.

Athleticism

You have speed, endurance, and strength. You can master almost any sport!

Compassion

You are tolerant, caring, kind and sensitive. You are a great friend and understand feelings!

Coordination

You have rhythm, flexibility and a good sense of your body. You instinctively move with grace!

Creative Skill

You create with ease! From dance to drama, painting to poetry, you make the extraordinary easy.

Creative Thinking

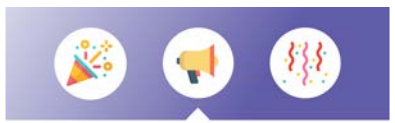
Hello innovator! You brainstorm unique ideas and find novel solutions to challenges and puzzles.

Drive

You are self-directed, excited by your interests, and are highly motivated to do well.

Focus

You finish tasks. You set goals and nothing gets in your way!



Fun-loving

You are the life of the party! You bring others into fun situations. You are positive and lively.

Independence

You do not need to be the center of attention. You can do things on your own and are very resourceful.

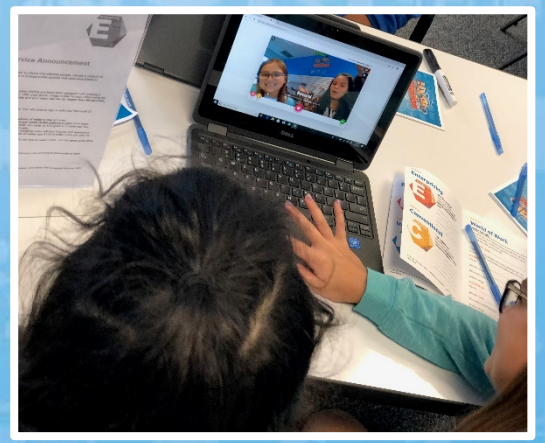
Leadership

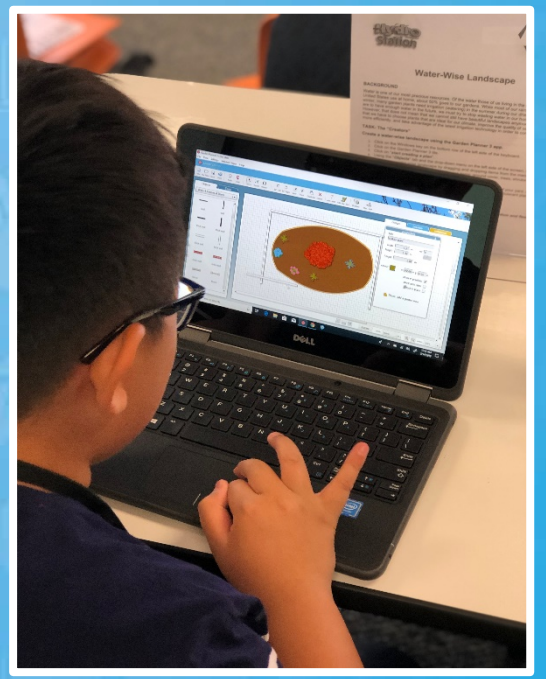
You are visionary and inspire others! You can present in front of others and capture their attention.

Memory

Facts, figures and images stick in your brain! You easily recall information, focus, and compute in your head.

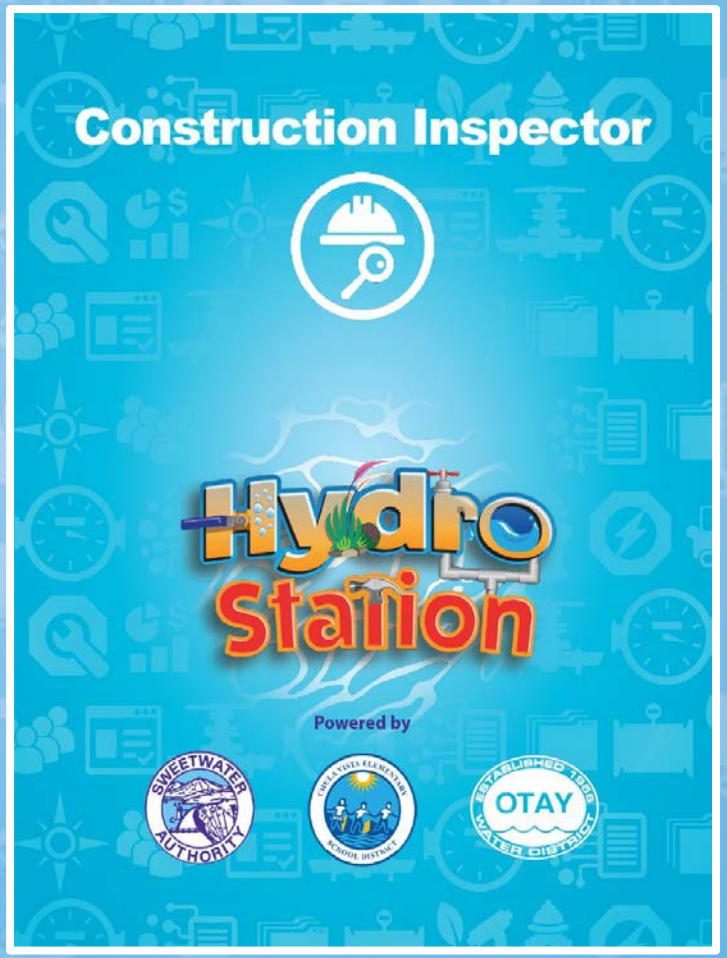
World of Work: Interests

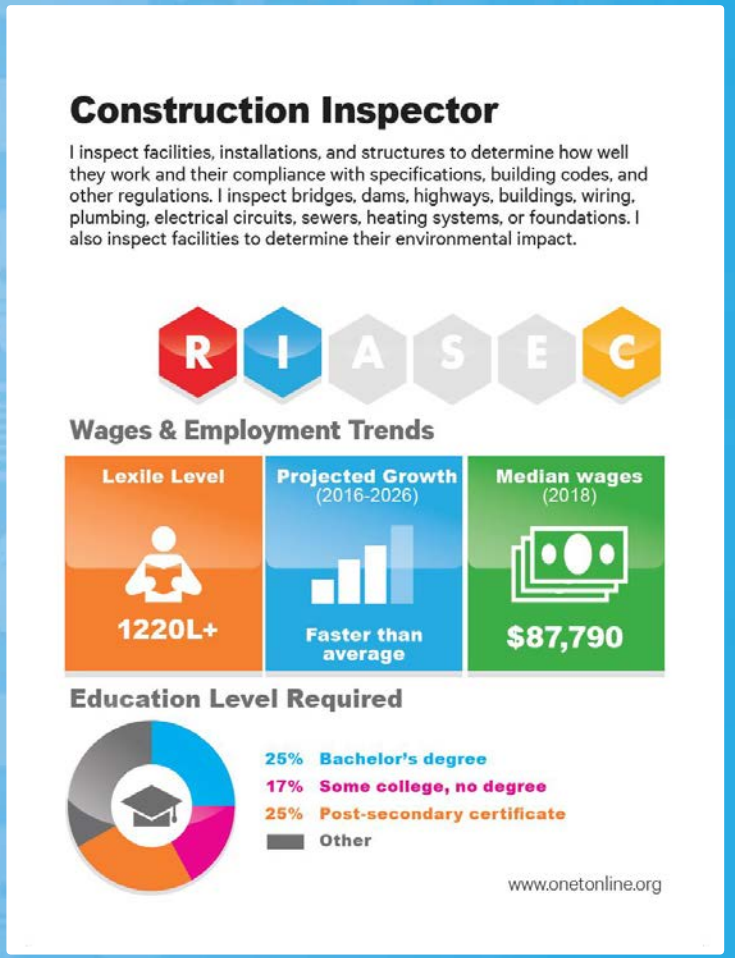




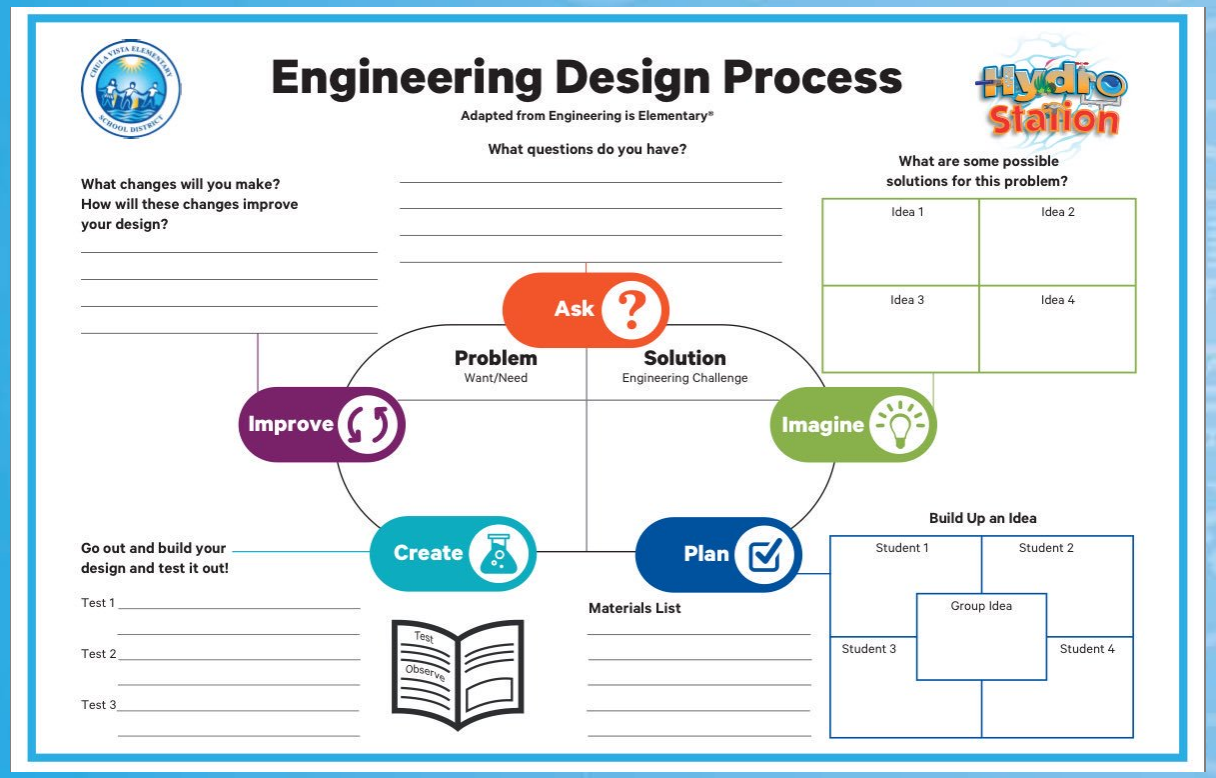
World of Work: Career Exploration

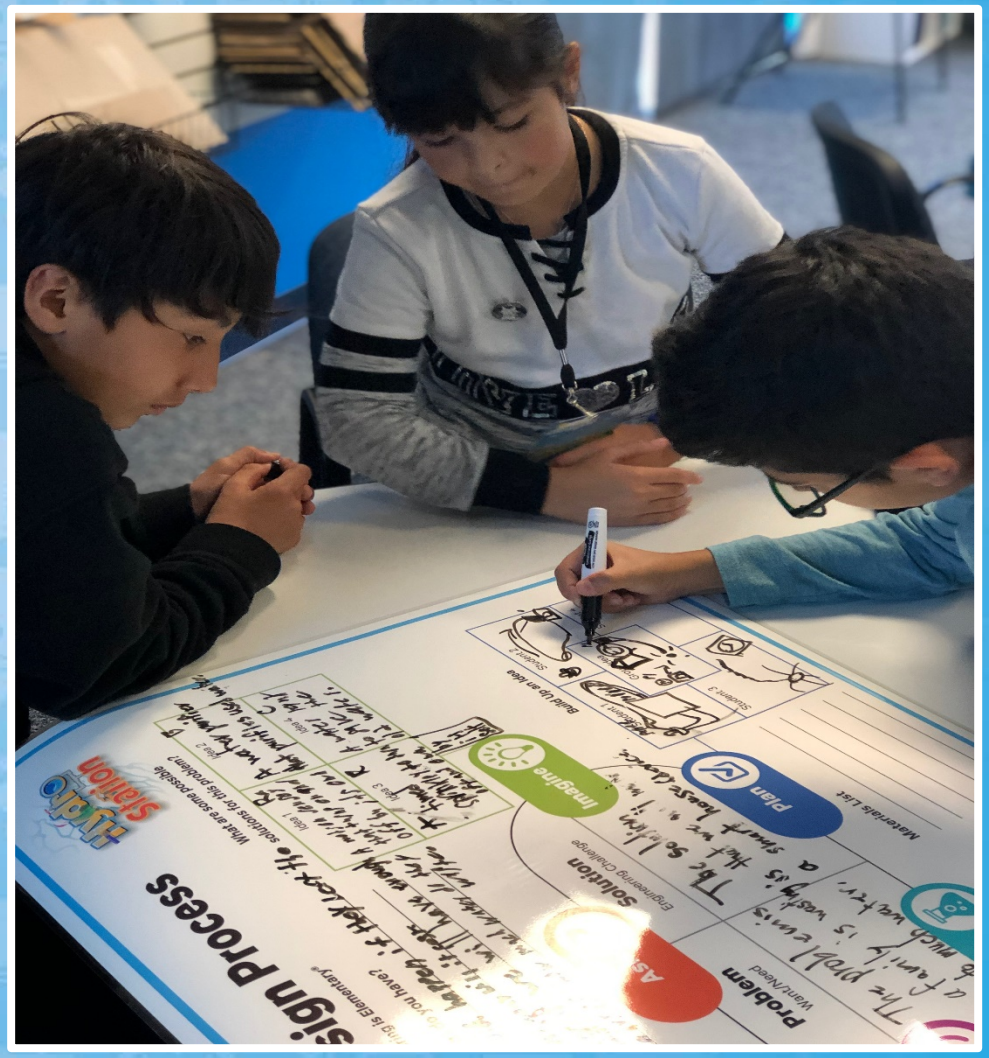
Students select career badges that align with their strengths, interests, and values





Engineering Design Process





Expanding the Experience

Hydro
Station
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SWEETWATER AUTHORITY
CHULA VISTA ELEMENTARY SCHOOL DISTRICT
ESTABLISHED 1956
OTAY
WATER DISTRICT
Using Mathematics and Computational Thinking
Developin and Usin Models
Constructing Explanations and Designing Solutions
COLD
ICE

Hydro
Station

Strengths
Schedule
9:05 Introduction
9:20 Strengths
9:35 RIASEC Videos
10:15 RIASEC Rotation
12:00 Career Cards
12:20 Lunch
1:00 Design Process
1:45 Coding
2:00 Building
2:30 Present/Reflect
2:45 Depart
The Doers
The Thinkers
The Creators
The Organizers
Mrs. Bystrak
My RIASEC code
Career:
RIASEC code:
Education Level:
Median Wage:
Mrs. Bystrak's
— strengths —
Worldly
Compassion
Flexibility
Creative Thinking
Independence
YOU NEED WATER. WATER NEEDS YOU.
WATER'S WORTH IT
YOUR RESPECT
YOUR EFFORT
YOUR HEALTH
YOUR FUTURE

Housekeeping
Name Tags
Name on Journal
Restrooms/ Lunch
Strengths
Mrs. Bystrak
My RIASEC code
Career:
RIASEC code:
Education Level:
Median Wage:
The Doers
The Thinkers
The Creators
The Helpers
The Persuaders
The Organizers

Hydro Station
50 KSDY

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SWEETWATER AUTHORITY

CHULA VISTA ELEMENTARY SCHOOL DISTRICT

ESTABLISHED 1956 OTAY WATER DISTRICT