Inventerprise

Water, water everywhere but not a drop to drink!

As the human population continues to grow, the amount of water on our planet remains the same. Invent something to help maintain life's most precious resource!

from the 869 participants

Here are the winners

Kindergarten

40 project entries

Kepler Groza

The Water Mobile

"It turns trash into water and it helps create more clean water."

Riley LaDelle
Penn Mendoza
Grayson Peters

The Auto Faucet

“If you forget to turn the faucet off, it will automatically stop the water. As the person steps away from the faucet, it will sense this and turn off. The person using the faucet has to turn it on themselves.

Rowan Kohl

The Flower Pranker

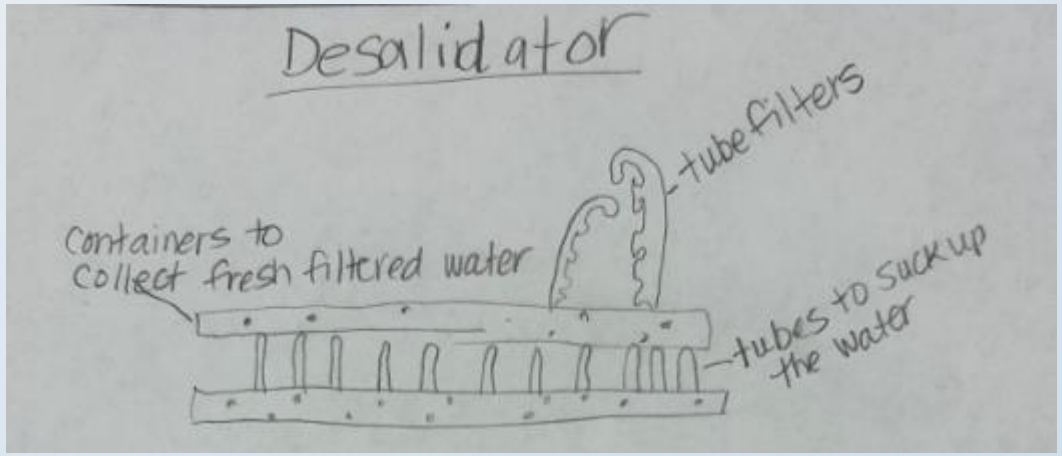
"The Flower Pranker pranks friends and plants trees... at the same time!

You ask a friend to smell your flower, then you spray them with water. The water has tree seeds and will plant a pine tree."

Cooper Marcos Castaneda & Jackson Pitney

The Desalidator

"Removes salt from the water. A scubadiver takes it under water, salt water is sucked through the tubes and into the filters – the fresh water is collected into the top and bottom containers."



Hailey Wheeler

The Yeller “U”

“It catches rain water to use for painting.

So that you don’t have to use river water to water color, it catches rain water in a big cup and then flows in a smaller cup. The smaller cups have a lid so you can use the water later.”

Amelie Contreras

The Salt Absorber

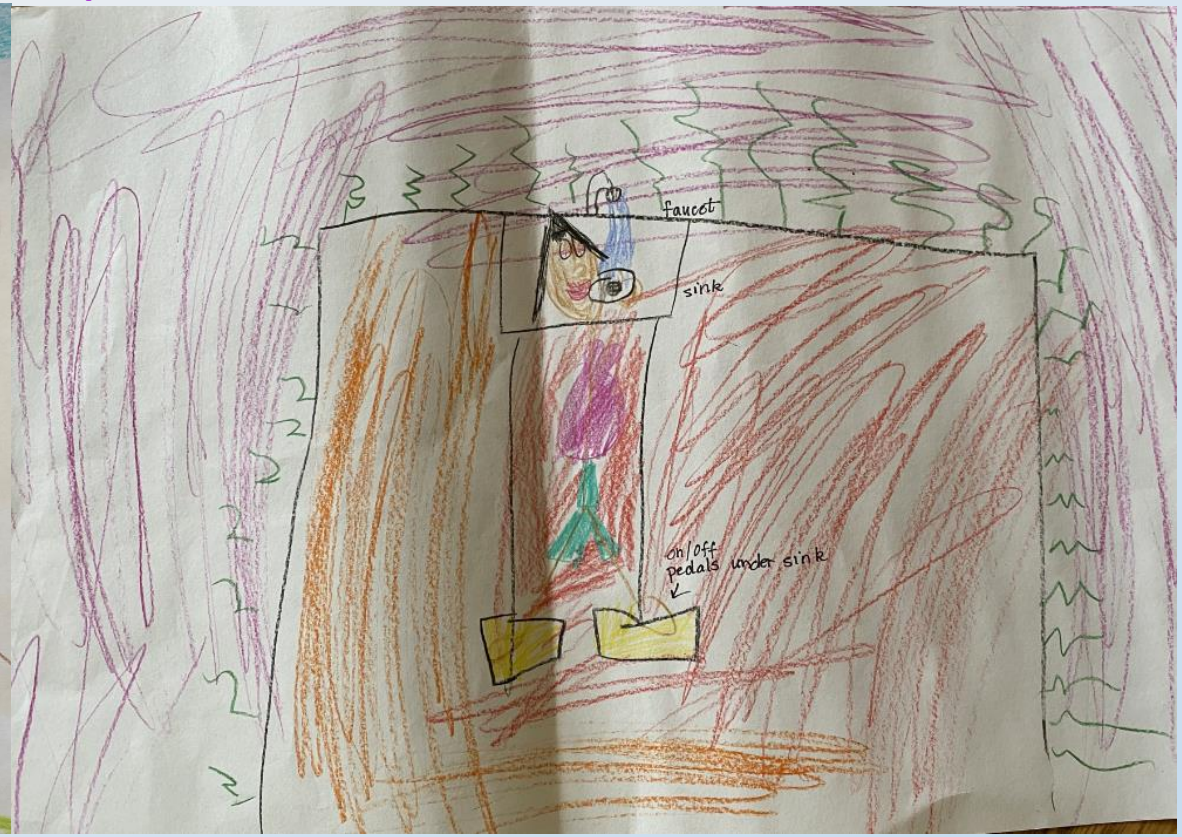
"My invention is putting salt absorbers into the water supply to absorb the salt and make it usable in more ways."

1st Grade

27 project entries

Francesca Barnhart & Braydee Serbus

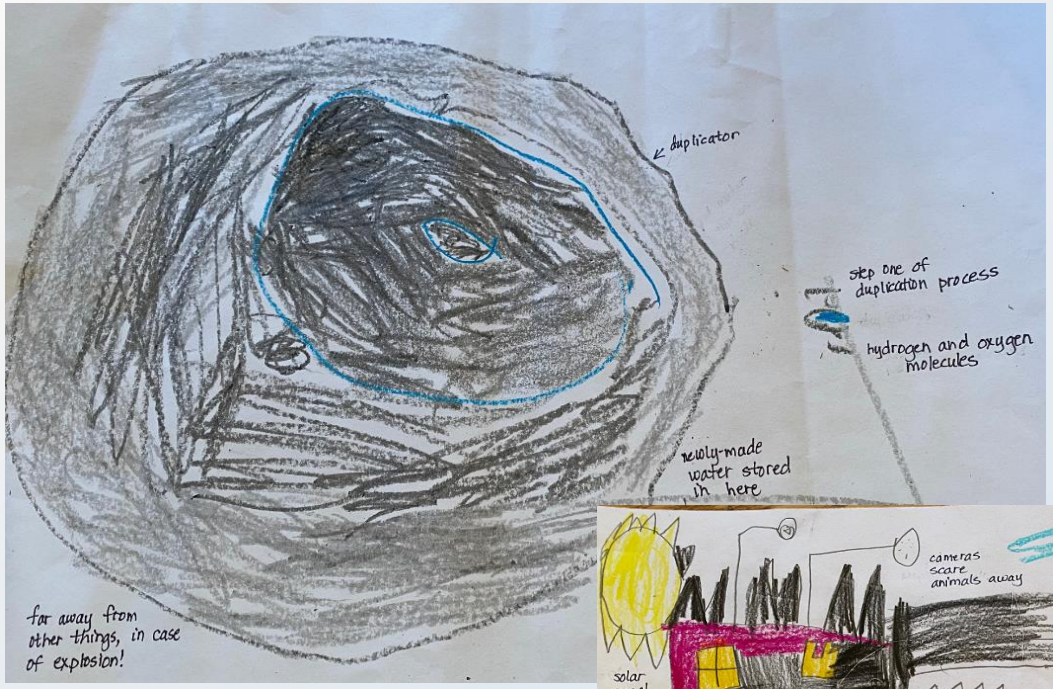
Water/Soap Pedal



"This is a box under the sink, with pedals (just like a gas and brake pedals on a car). You use your foot to step on it to turn on water and/or to dispense soap…This device will make it harder for people to waste water, because you have to step on the pedal to keep the water running."

Jackson McClain & Hunter Petersen

Water Duplicator



"This machine will combine hydrogen and oxygen molecules to make water --- H2O.

When we combine precise amounts of hydrogen and oxygen, we can make water. You need to be careful because there is an explosion. So you need to wear goggles and earplugs."

Eli Ekhoff

Clean Flower

"A flower engineered to suck up dirty water and transpire clean water."

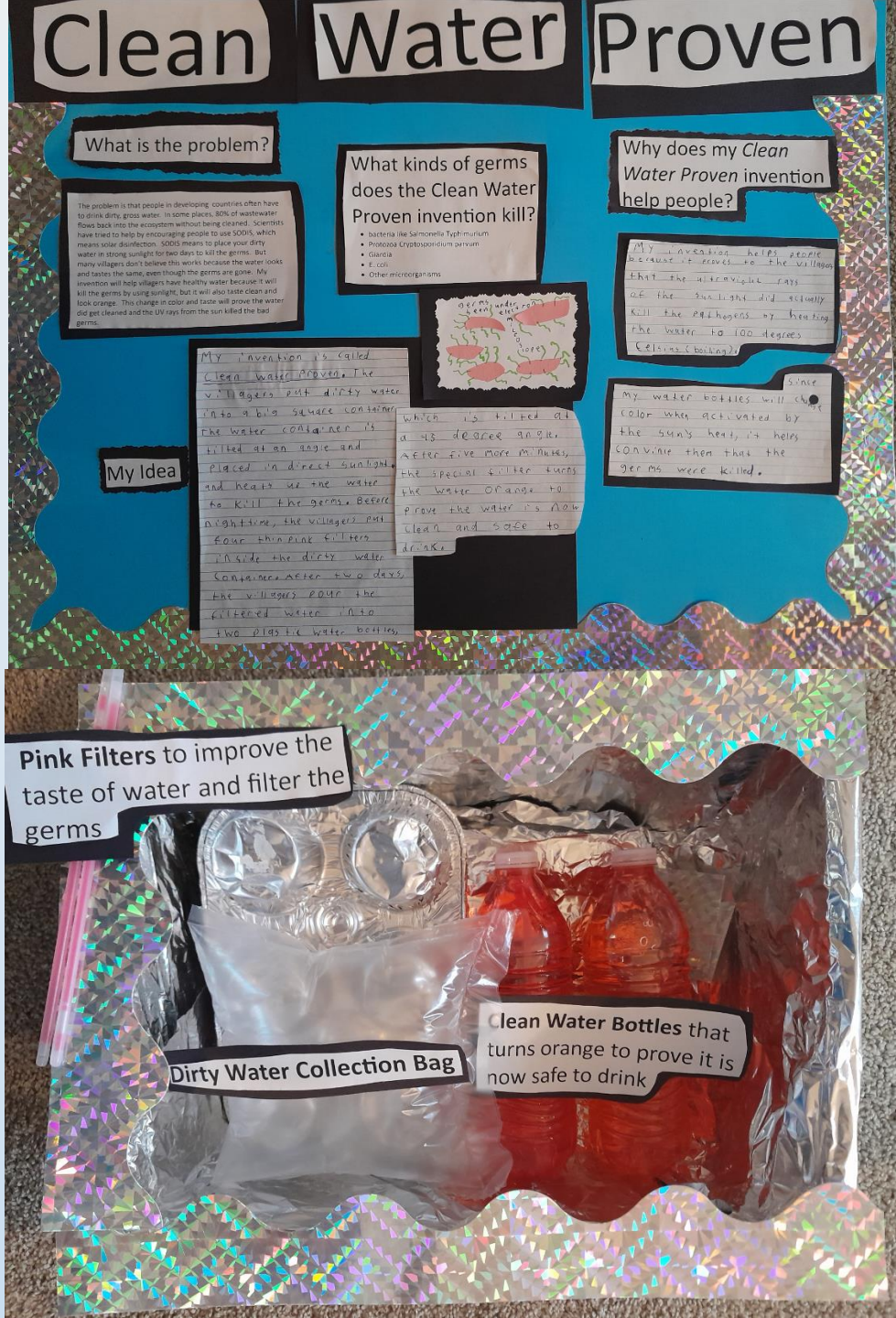
2nd Grade

30 project entries

Grace Myers

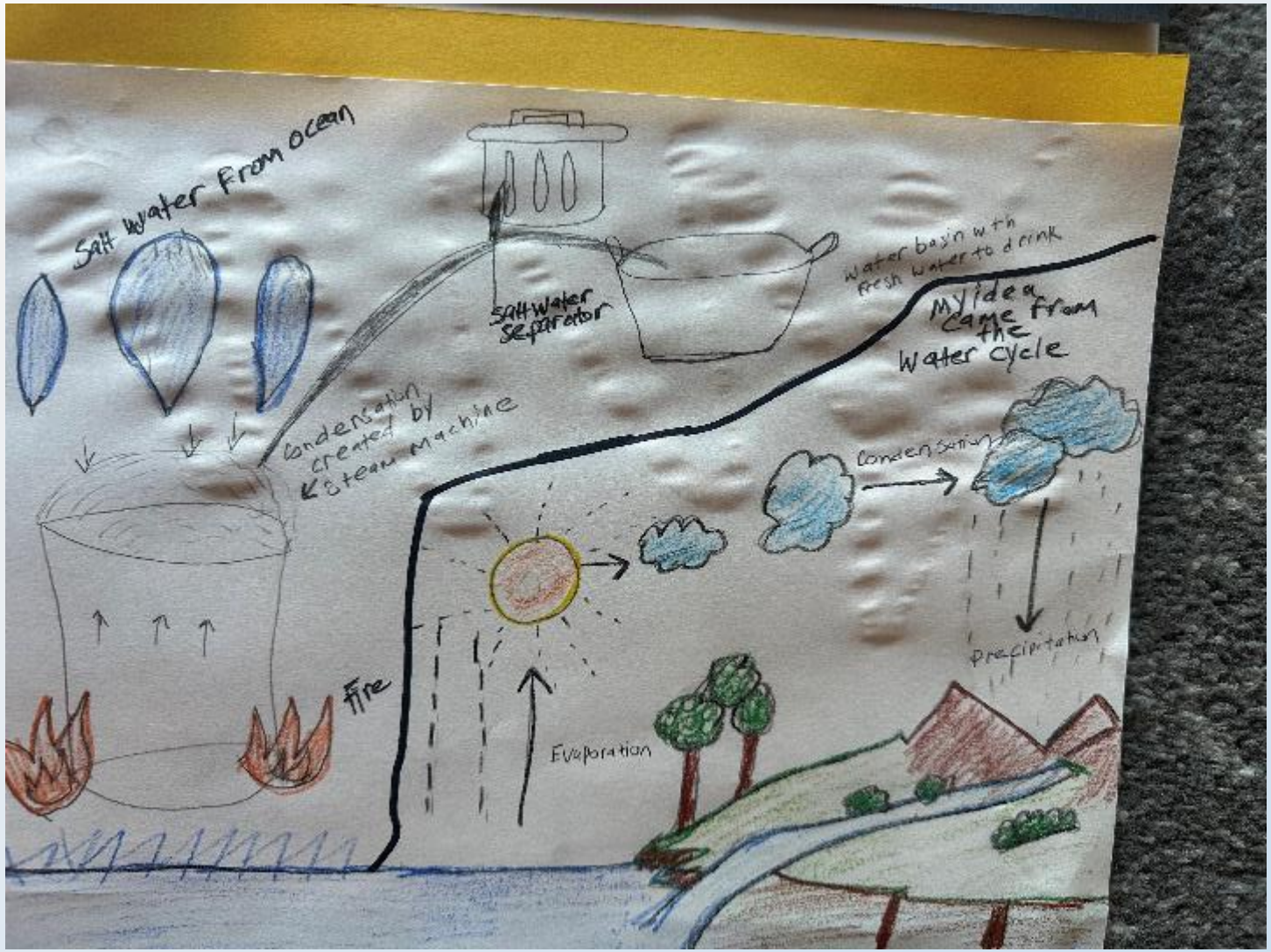
Clean Water Proven

“The villagers put dirty water into a big square container. The water container is tilted at an angle and placed in direct sunlight, which heats up the water to kill the germs.”



Ella Rodrigues

Salt Water Separator



“My idea is to make a machine, the Salt Water Separator, which will separate the salt from the saltwater. Then it will put the clean water into the other side which we can drink.”

Dahlia Kehs
Finnley Kluck
Willow LeGalley

Picker Upper 2000

“It floats in the ocean and picks up trash…It sorts the trash into trash and recycling.”

Tatum Cavanagh

The Water Wheel Times Two

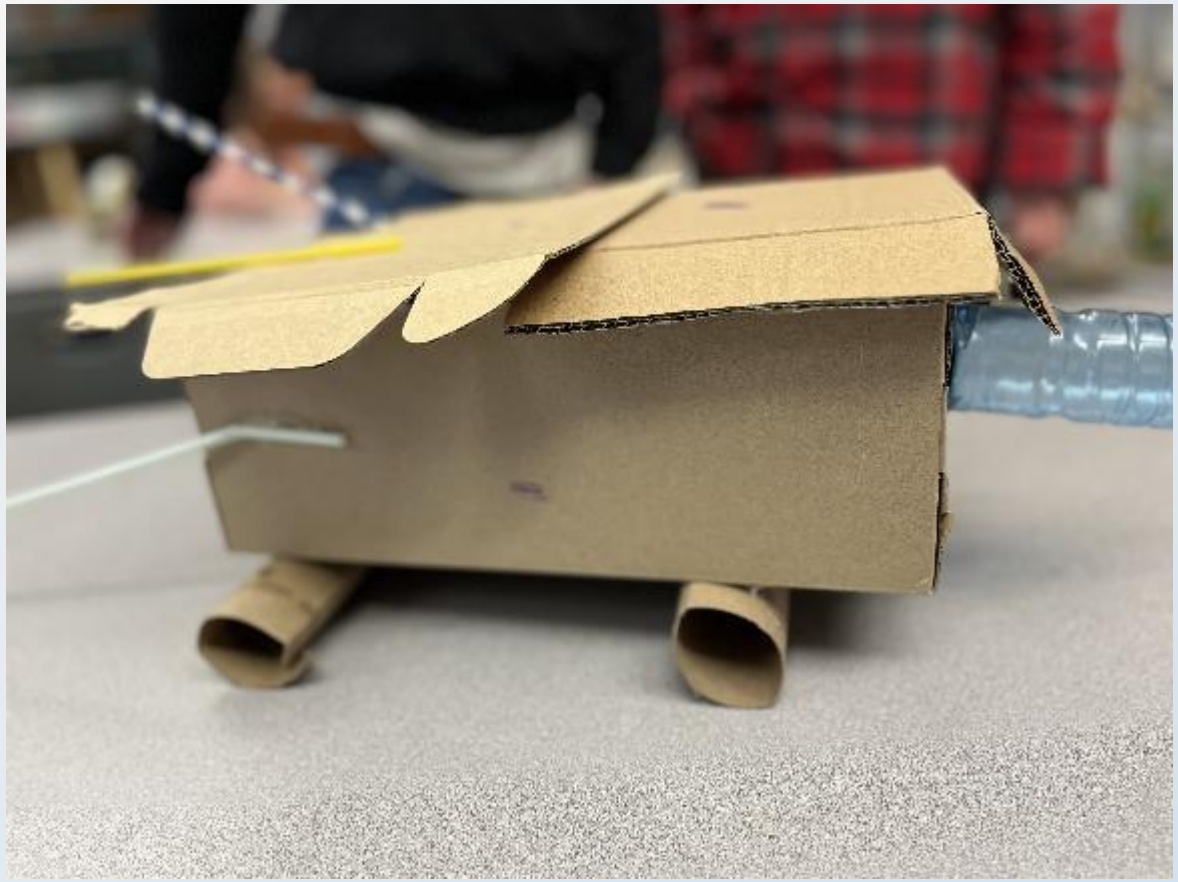
“It can clean the water and create electricity.”

3rd Grade

113 project entries

Charlie Costello & Kolbe Thordarson

The Water Roamer 3000



“Our invention will suck up water. Then there is a scanner that kills the bacteria and all the bad stuff. Then there is a different tube that pushes the bad water into a container to make sure that the bad water doesn’t mix with the good water. Then all of the good water comes out through another tube... The solar panels tuck in so the water or rocks won’t damage them.”

Scotland Godino & Jake Guidice

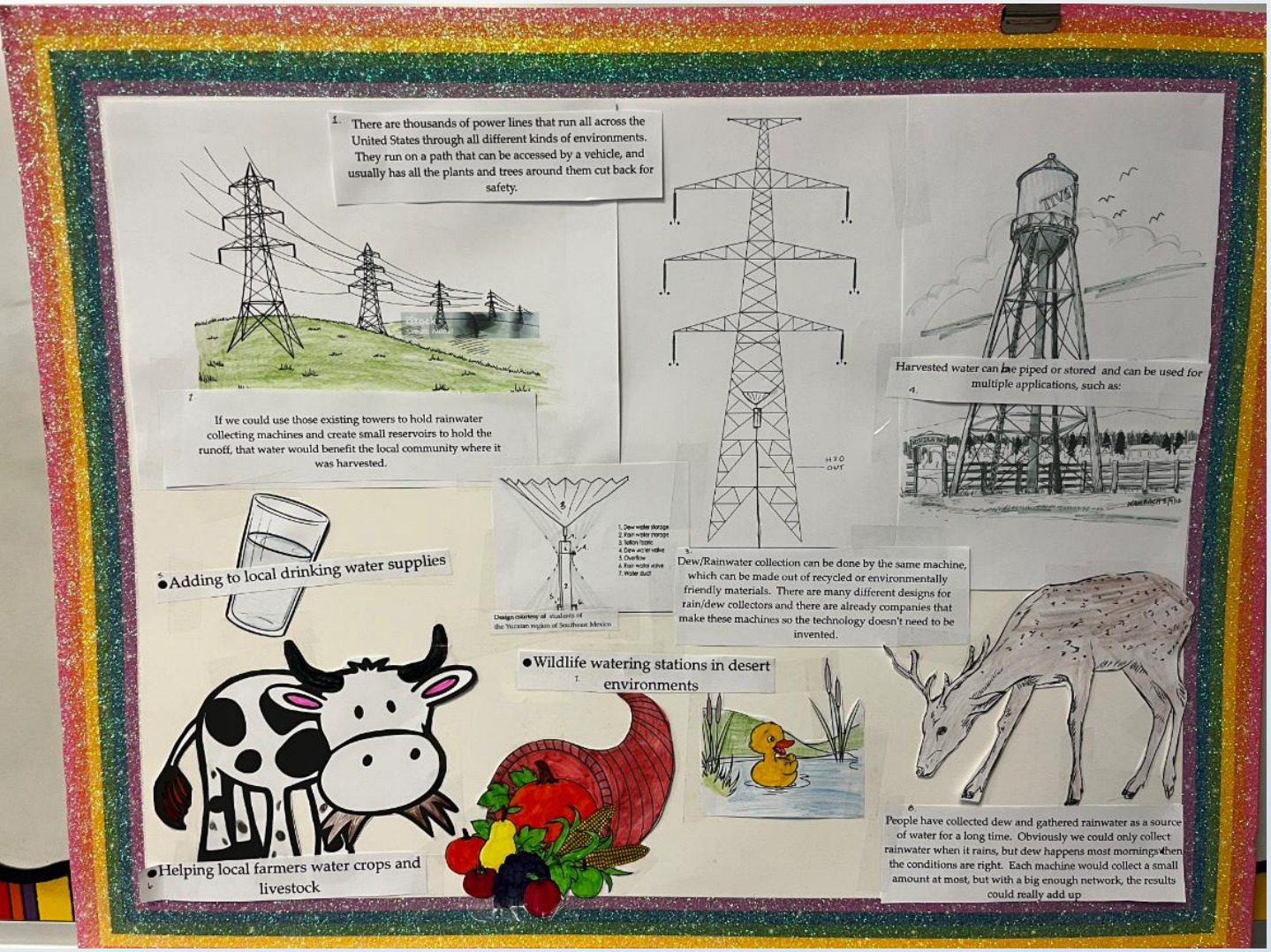
Sink/Water Grass

“Our invention begins working when you turn on the water to wash your hands. The used water goes down through the pipe and into the grass and saves water. It goes into a tank that holds 5 gallons of water in it, and there are 3 tanks. The tank waters the grass with a certain amount of water per day.”

Virginia Jones, Arianna Lopez, Cecily Storey

The Water Scanner

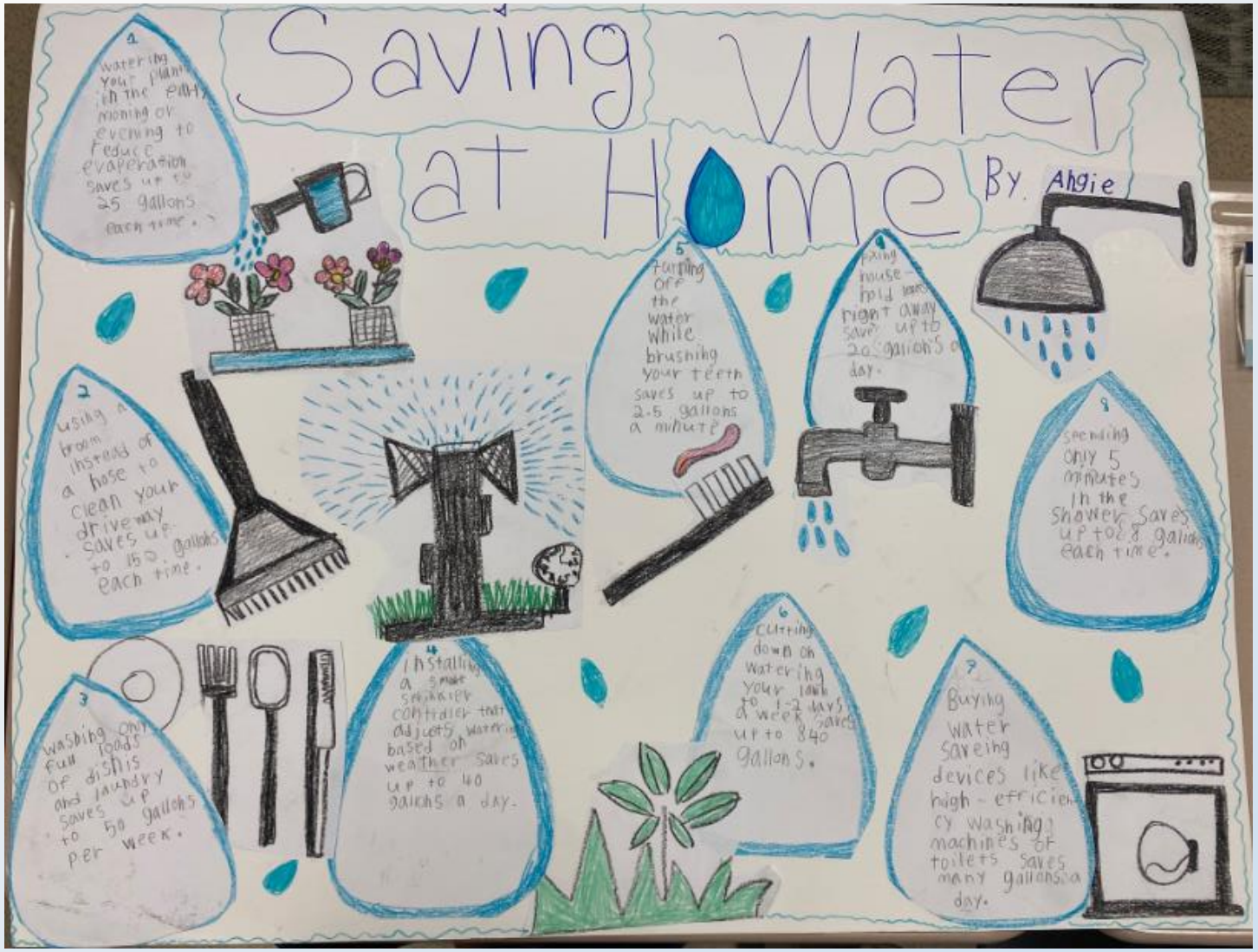
"It's a refrigerator where you can't spill any water. You have the cup and you put it in the scanner and then…it will fill the cup just to the perfect height."



Georgia Small

Dew Collector

"The Dew collector collects due out of the clouds. It turns it into water. The water collected could be used for wildlife watering stations. Existing electrical towers could be used to hold the rainwater collecting machines."



Angie Virgen

Saving Water at Home

"A poster that describes nine different ways to save water at home."

Jenesyss Renteria

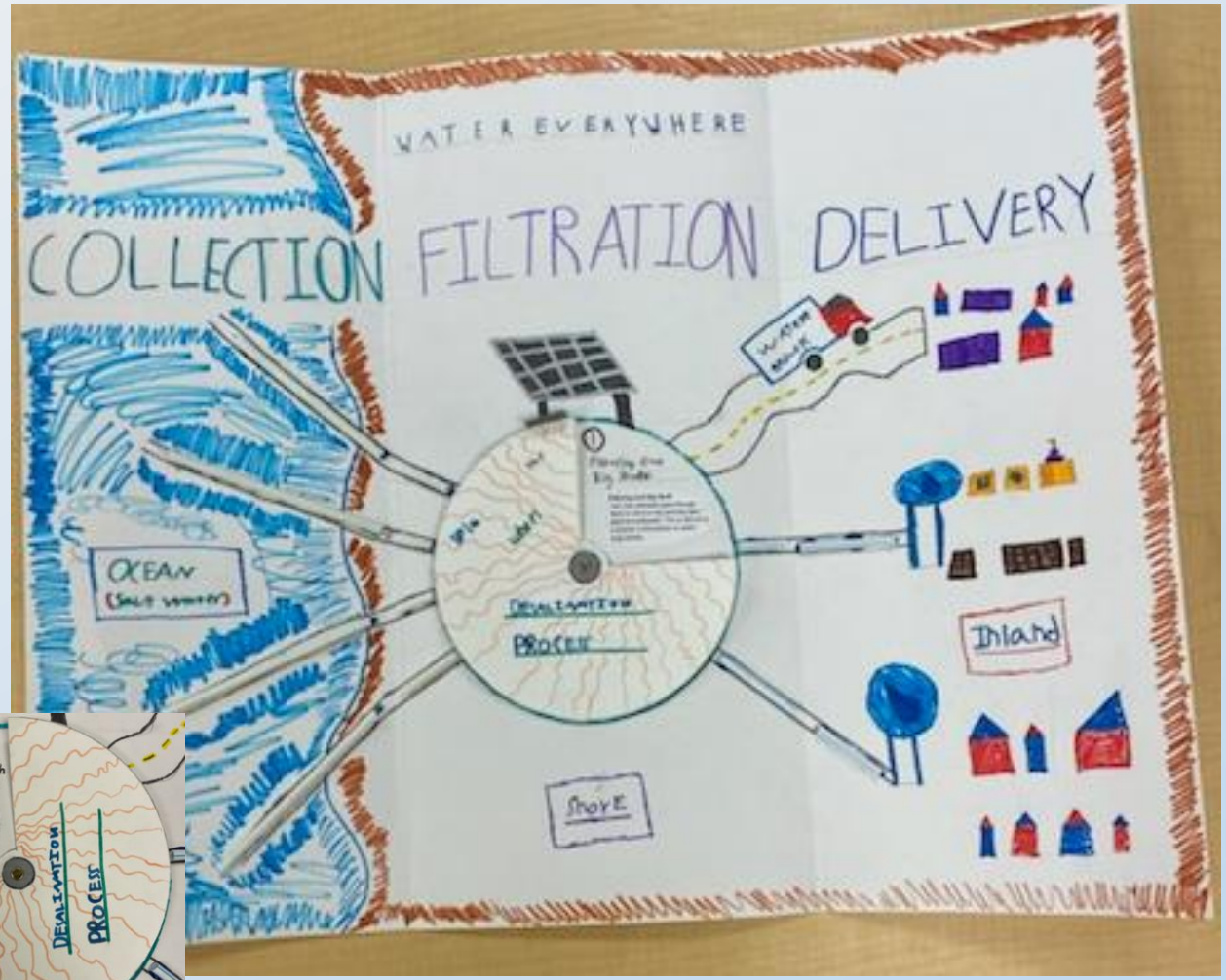
Water Collection Town

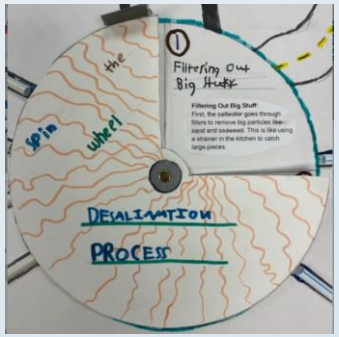
"A diorama of a town and all of the ways that water is collected from rain, stored, and filtered."

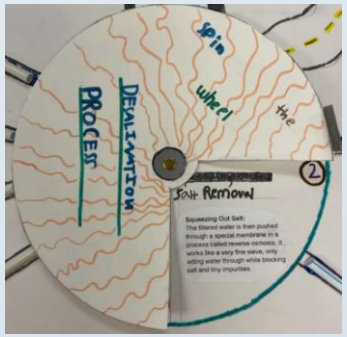
Emma DeSapio

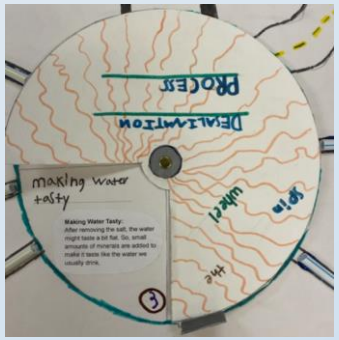
Desalination

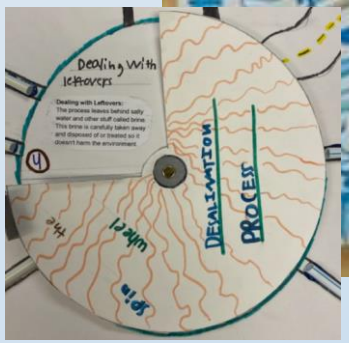
"With plenty of ocean (salt water) water available, this inventor uses solar energy to power a desalination plant."







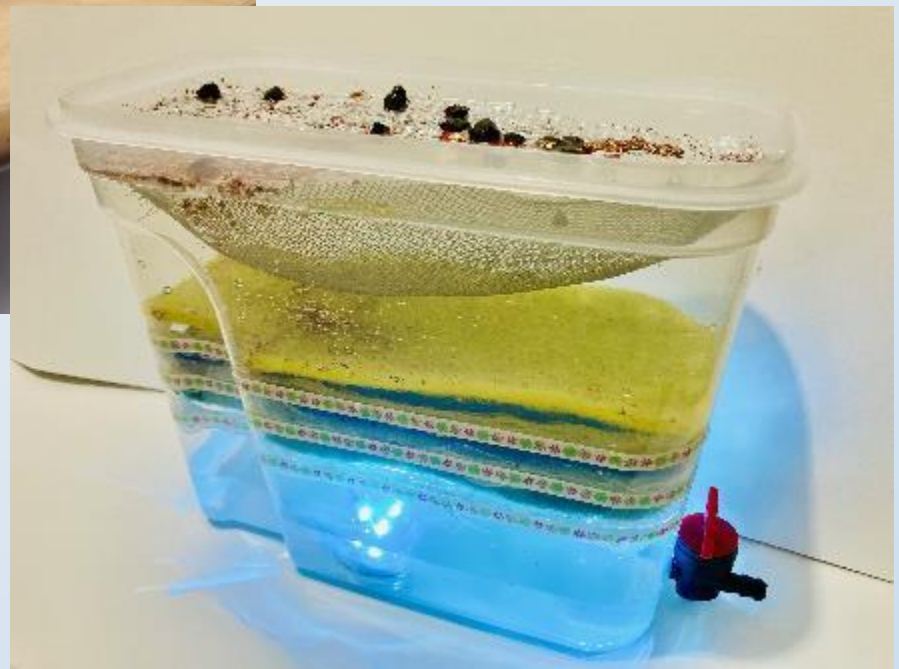


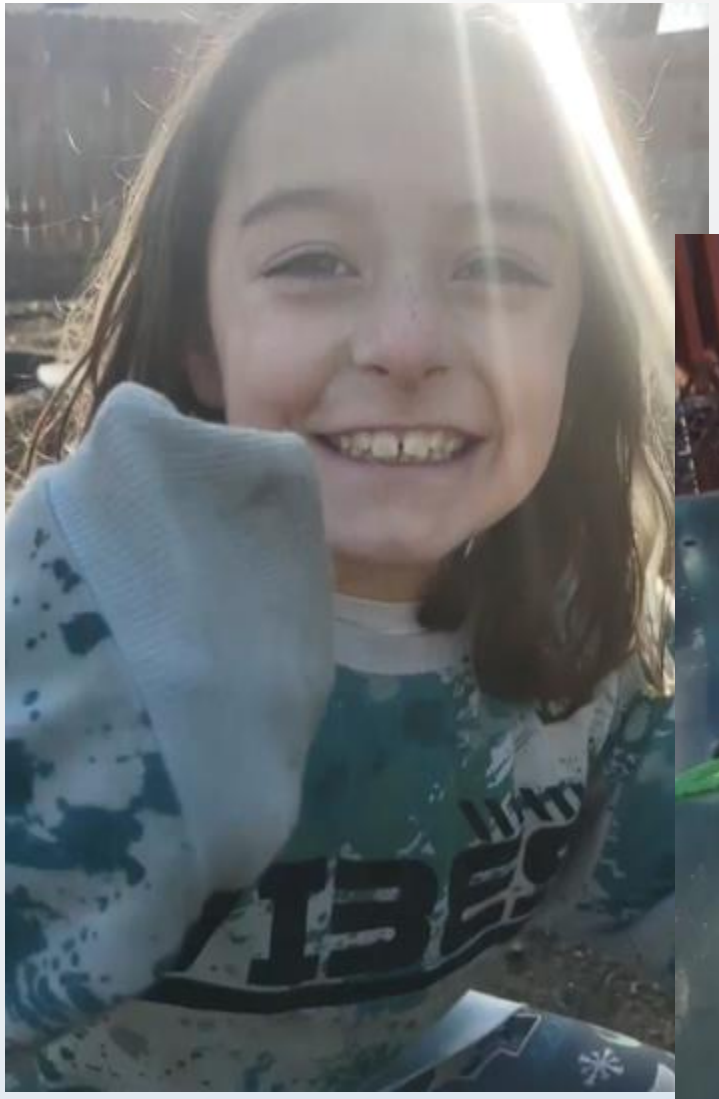


Lilly Fox

CLEAN Water Transport

“It’s like a Roller coaster ride for the water. It goes through the obstacles that clean the water then it leads to the end and it gets clean.”





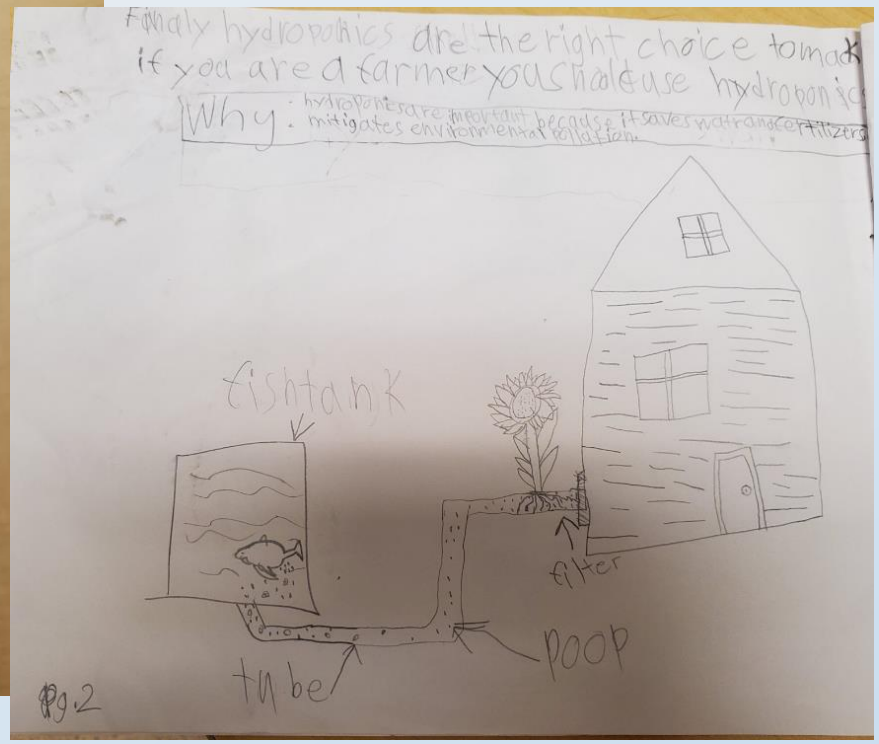
Kaelani Gibb

Rain Water – 3 Stage Filter

“These are the filter stages…the water can go in from here to here to here…and then it goes all the way down to here where we have our drinking water!”

(Student wishes to remain anonymous)

Hydroponic



"Hydroponics are important because it saves water and fertilizers… Farmers could use hydroponics to clean the water and water the plants."

Amelie Henninger & Caroline Koleno

H20

"…it has some sticks that suck up some dirty water so scientists can study more on dirty water to try and help the problem of dirty water… It has everything to clean Rivers and storm drains and make it safe for humans and animals"

Chloe Cavanagh

The Irrigation Super Saver Super Dooper Pumper

"(The water) falls down into this big big giant boiler that boils and purifies the water…The well picks up the water where the people can carry it to the village."

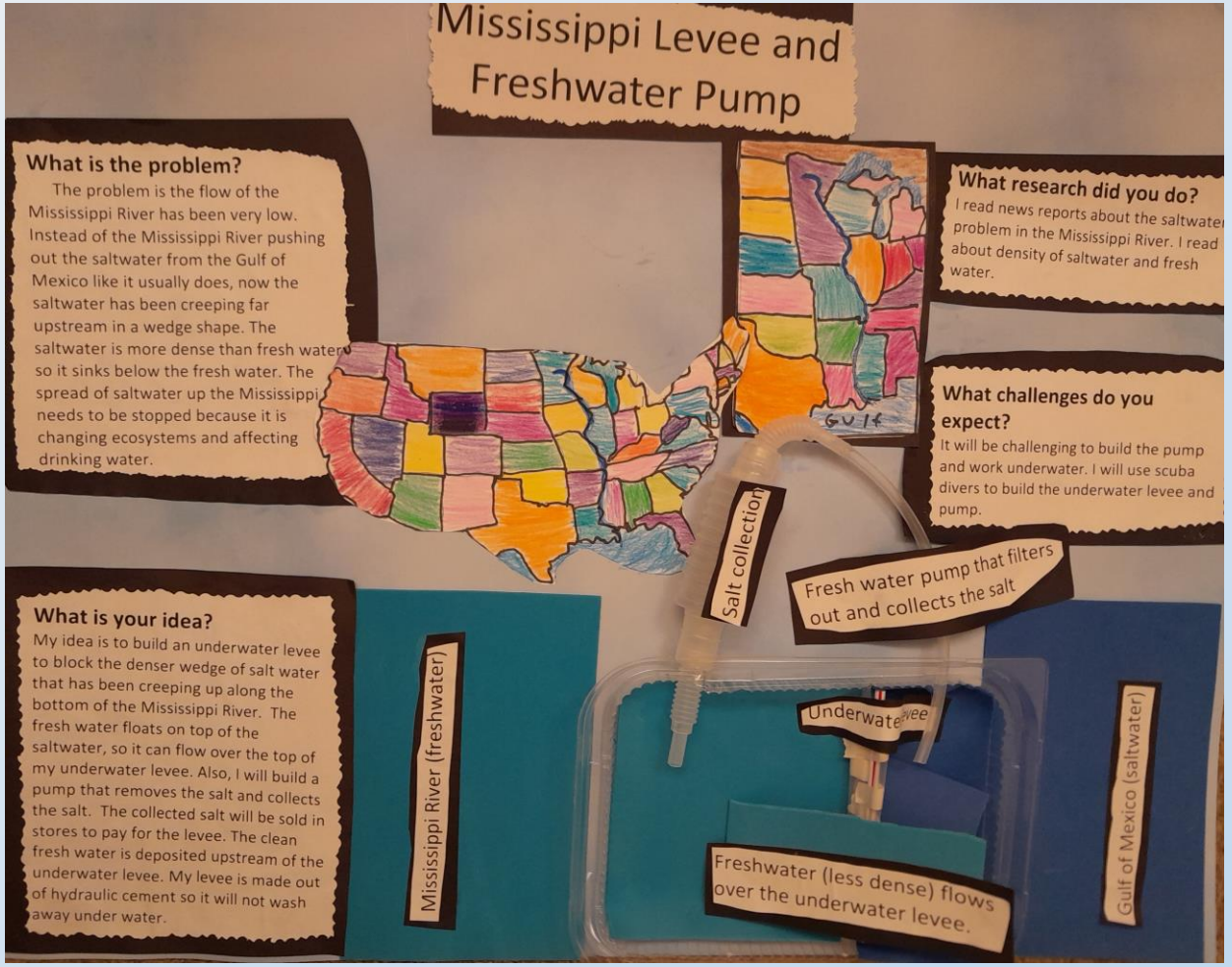
4th Grade

81 project entries

Mercy Myers

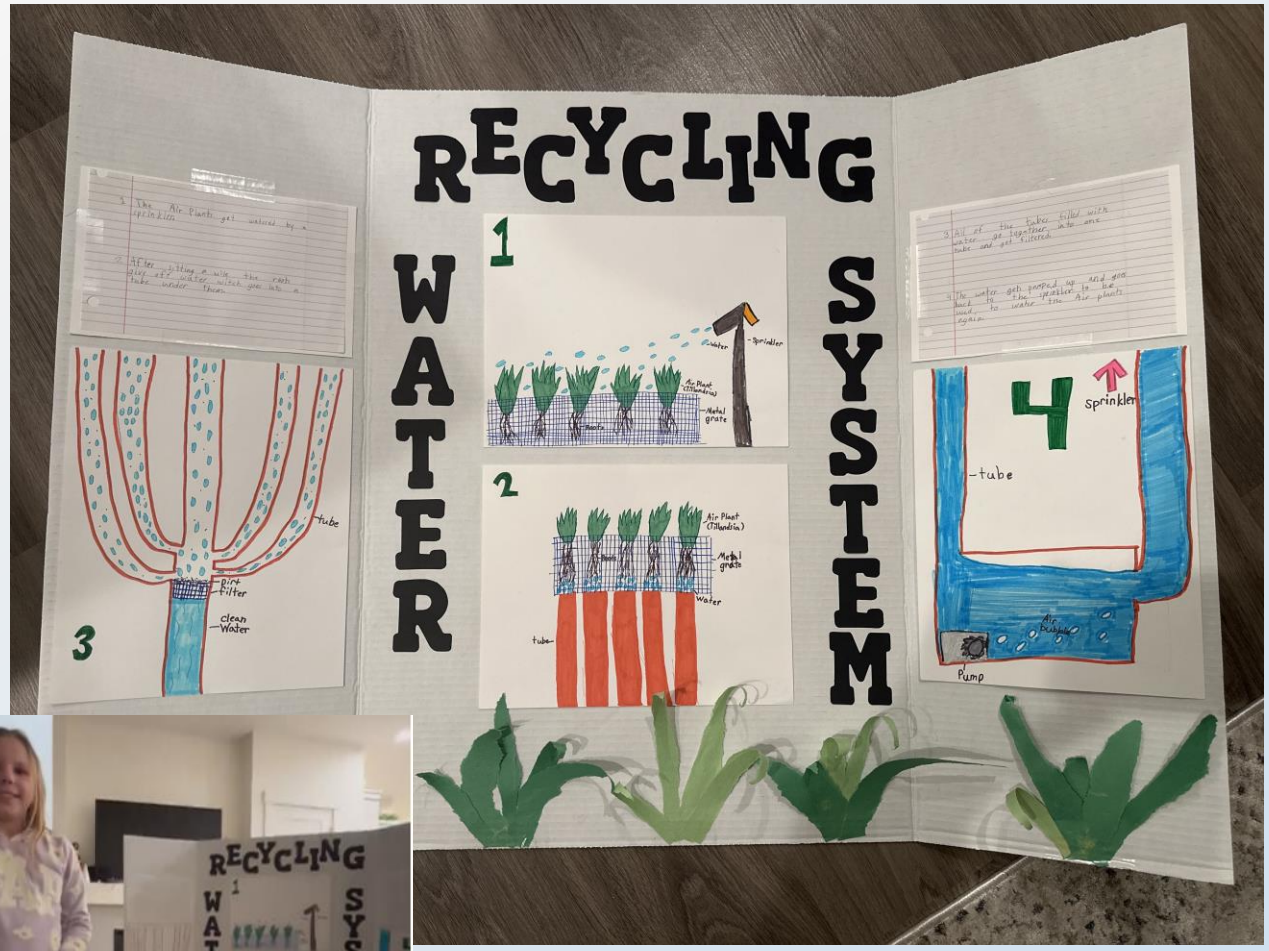
Mississippi Levee and Freshwater Pump

"My idea is to build an underwater levee to block the denser wedge of saltwater that has been creeping up along the bottom of the Mississippi River. The fresh water floats on top of the saltwater, so it can flow over the top of my underwater levee. Also, I will build a pump that removes the salt and collects the salt. The collected salt will be sold in stores to pay for the levee."



Benny Vecere

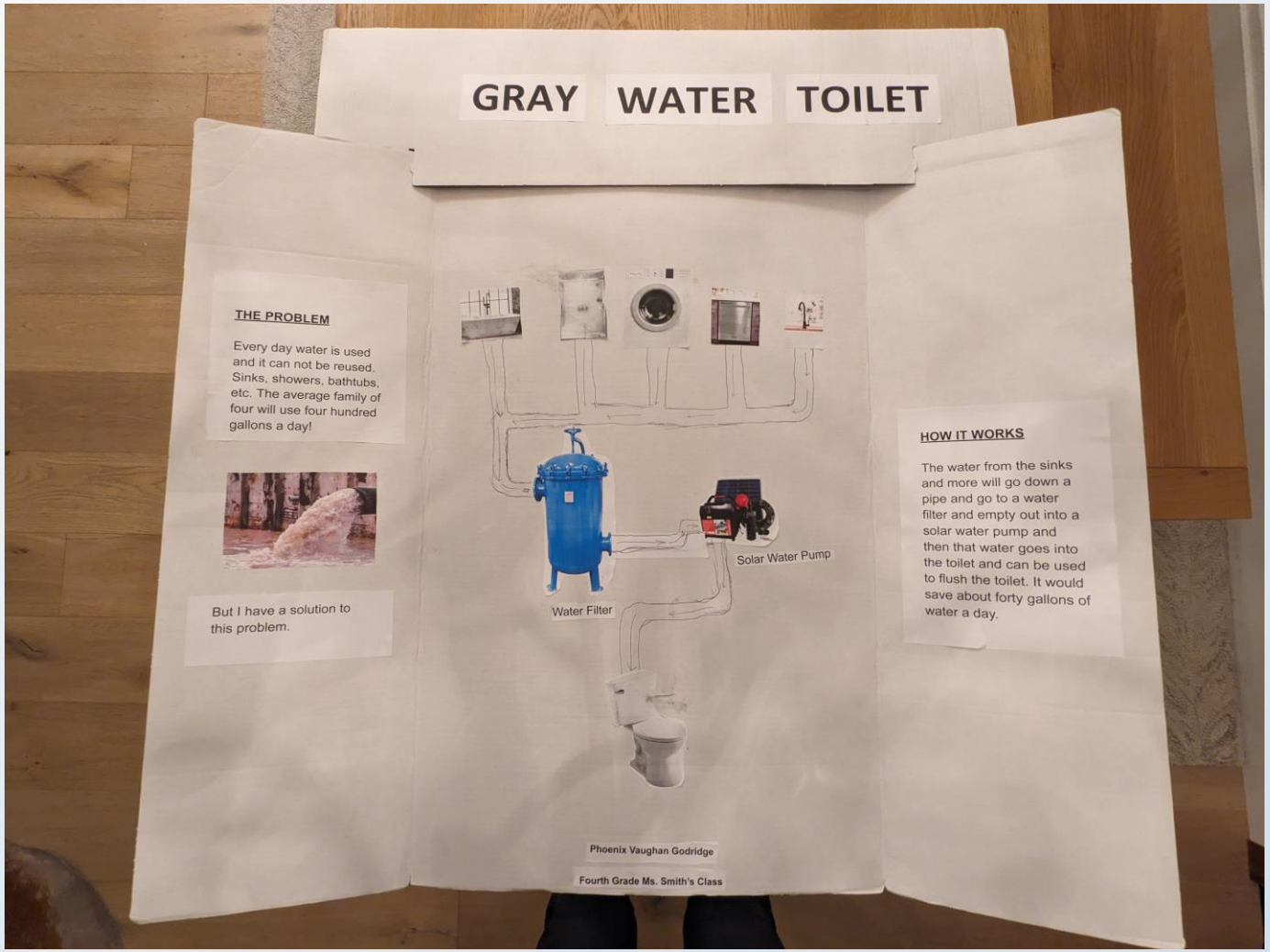
Water recycling system



"The sprinkler water the air plants…[that] sit in a metal grate. The air plants after a while give off water and the water goes into a tube. All the tubes connect…then the water goes into a pump which pumps it back up to the sprinkler to water the plants again."

Phoenix Vaughan-Godridge

Gray Water Toilet

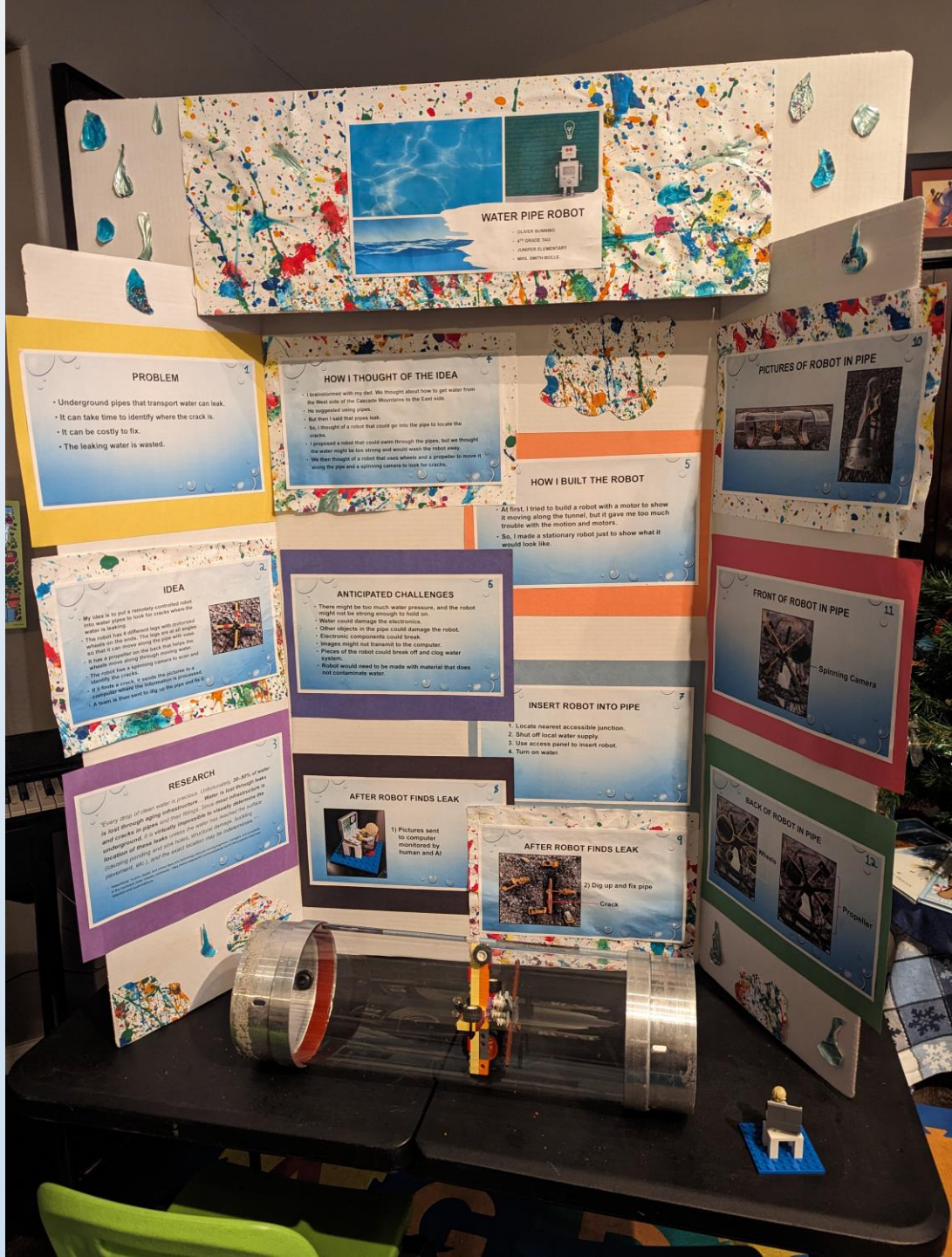


"A filter and solar pump system to reuse gray water from sinks and showers etc. to flush toilets."

Oliver Bunning

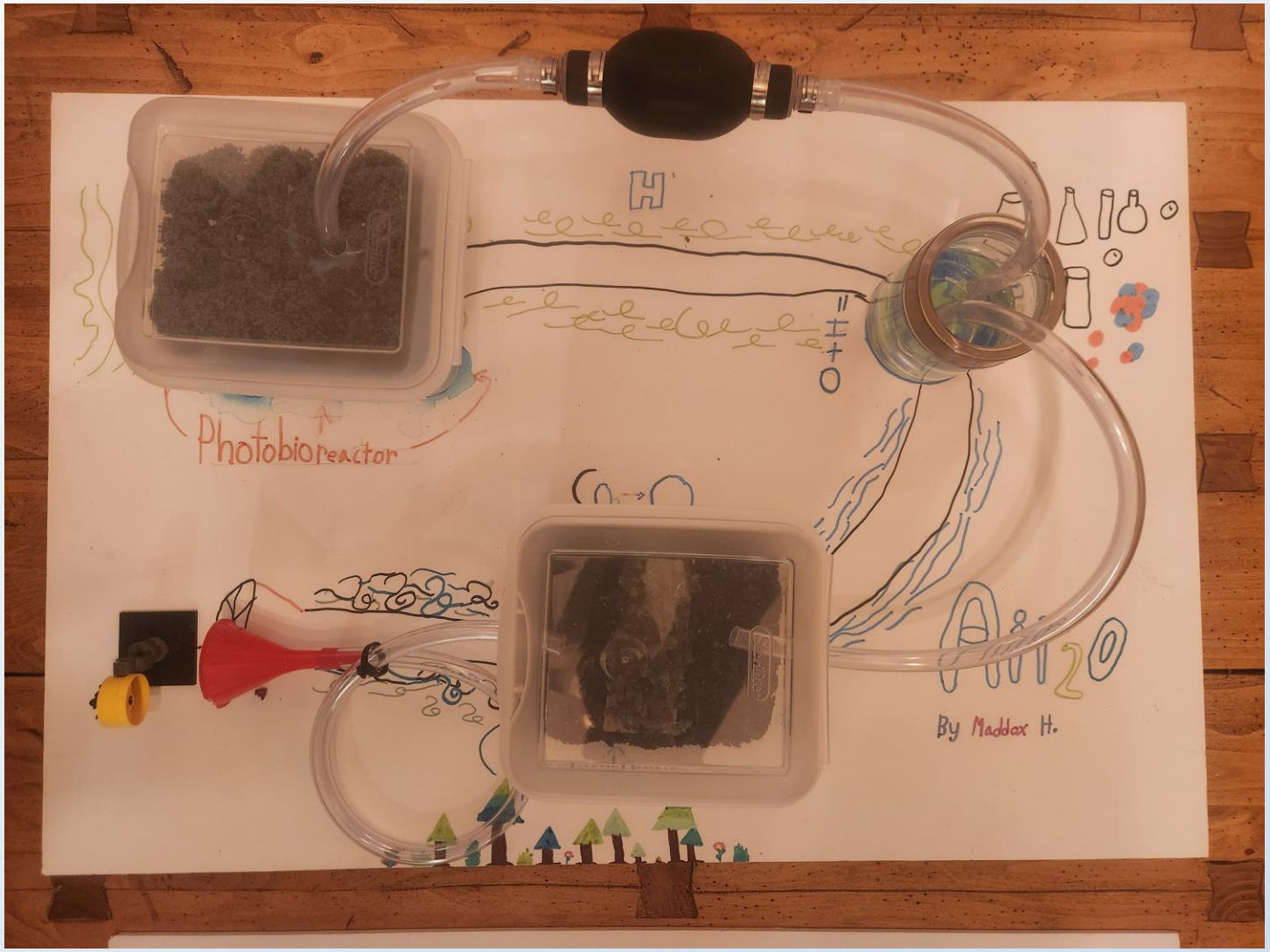
Water Pipe Robot

“My idea is to put a remotely-controlled robot into water pipes to look for cracks where the water is leaking. If it finds a crack, it sends the pictures to a computer where the information is processed. A team is then sent to dig up the pipe and fix it.”



Maddox Hellwich

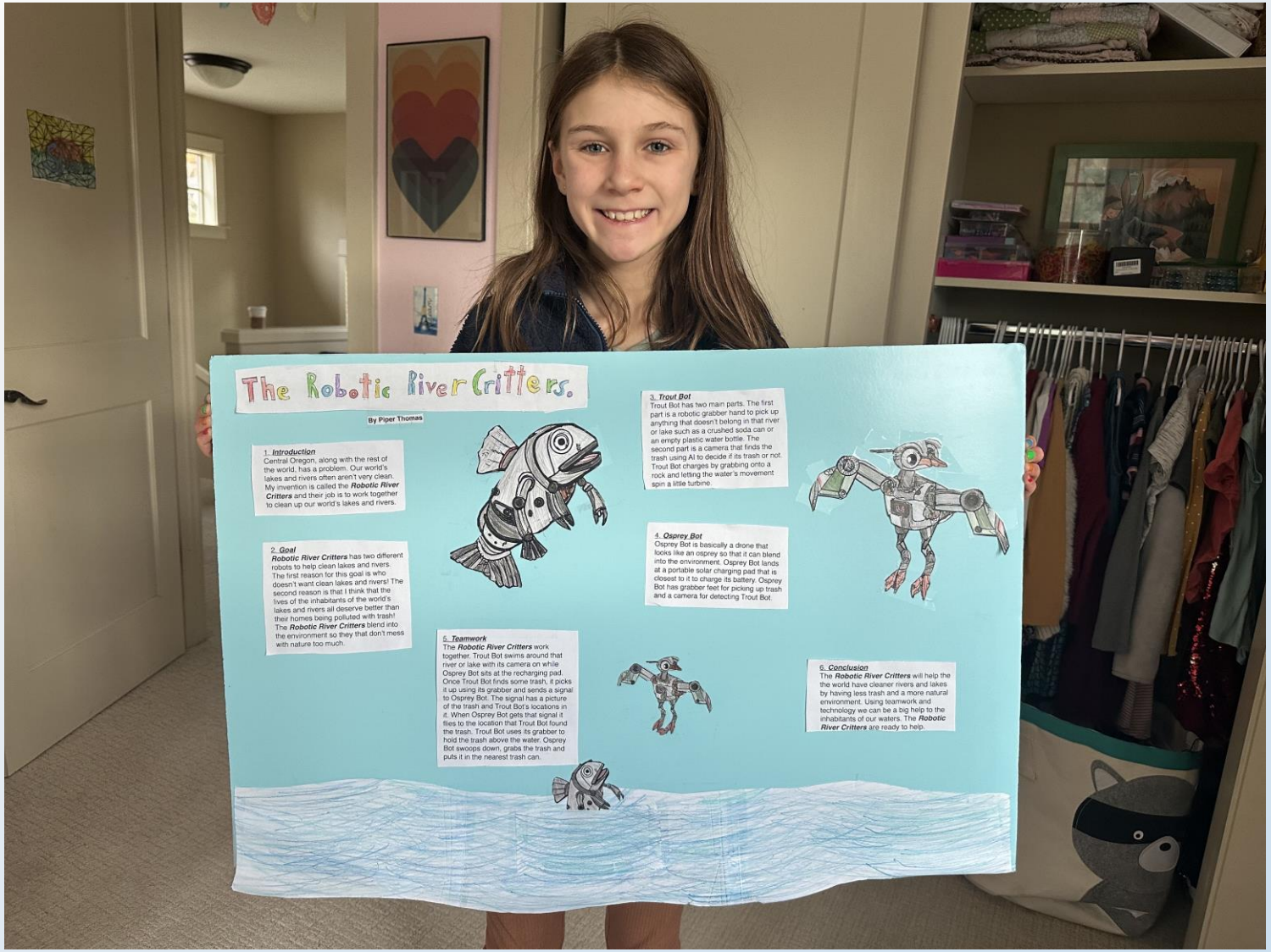
Air 2 O



"I used a naturally occurring process that uses elements to create water."

Piper Thomas

The Robotic River Critters

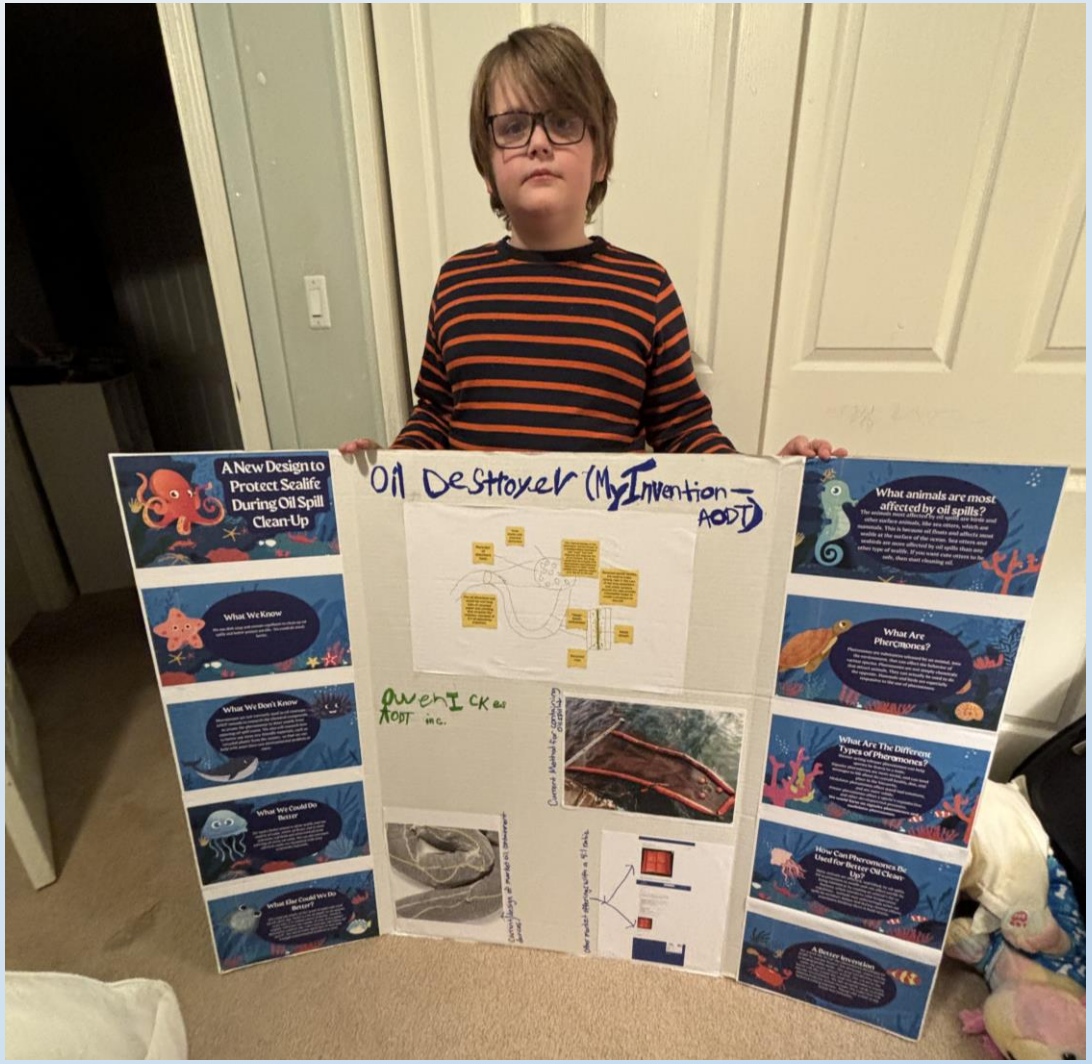


"The Robotic River Critters work together…Trout Bot uses its grabber to hold the trash above the water. Osprey Bot swoops down, grabs the trash, and puts it in the nearest trash can."

Owen Ickes

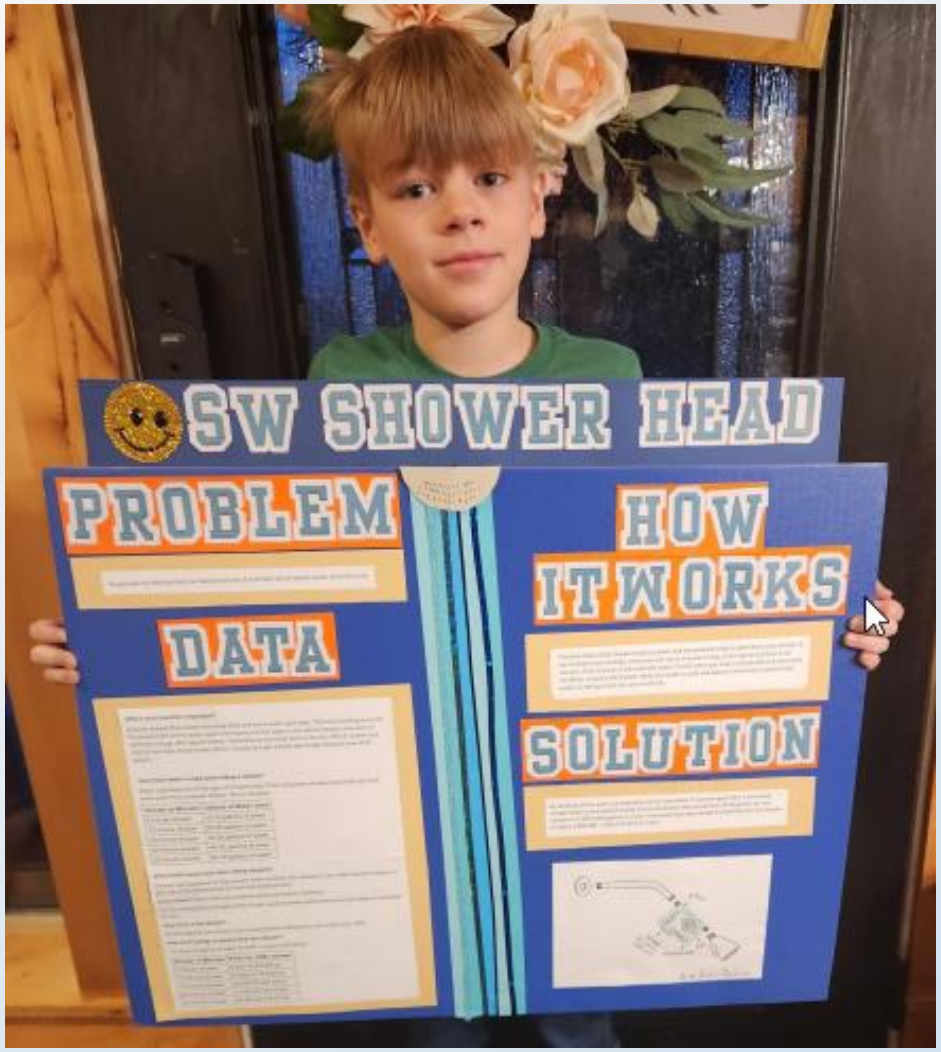
Oil Destroyer – My Invention (AODT)

"The oil will come in into the foam, the soap beads will break down because of the water…and they'll destroy the oil.
I put pheromones in…which will repel animals…then they'll go out of the oil and their doom."



Asher Paulson

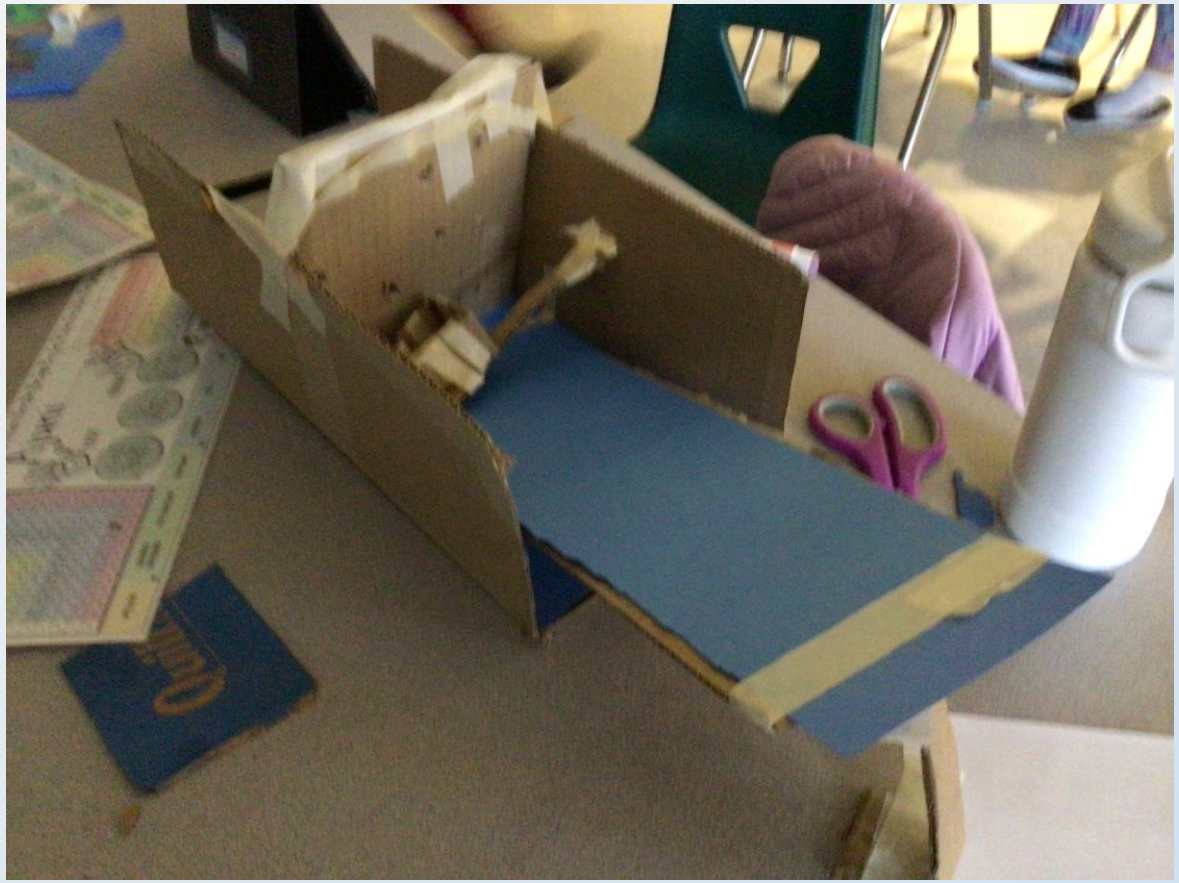
Save-Water Shower Head



"The SW Shower Head is a timer and thermometer that is attached to your shower. It has multiple timer settings, where you can set it on pulse or ring…If set to pulse, it will pulse the water 3 times when you have a minute left and then shuts off."

Ajuni Kaur

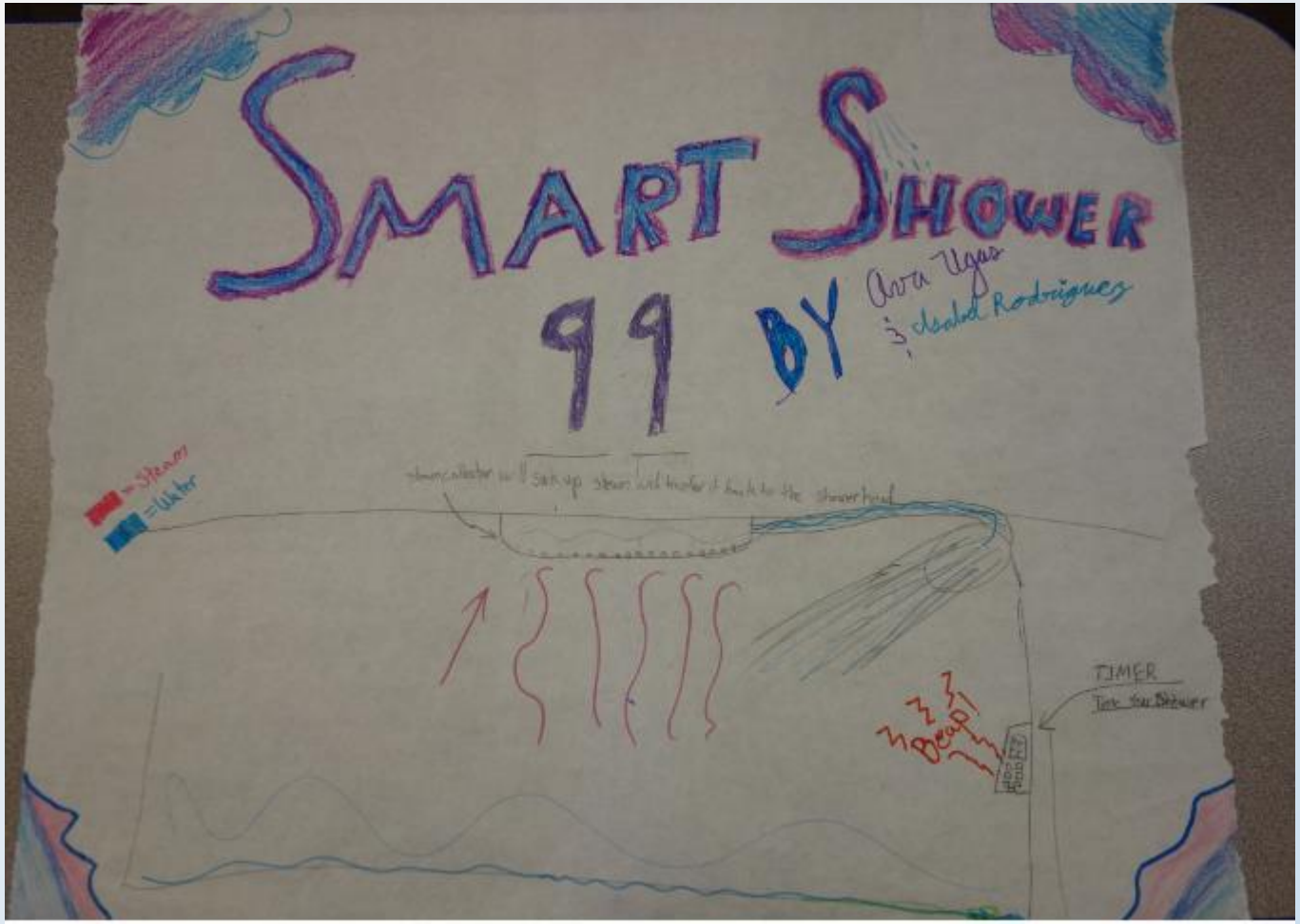
Clean Stream



"[The trash] will flow down with gravity and the water flow...and it will pick it up."

Ava Ugas & Isabel Rodriguez Robels

The Smart Shower 99



"The steam collector collects the steam from your shower and turns it back into water… The timer allows you to time your shower. It will turn off the water itself…[and] gives you a 3 minute warning…"

Drew McGuire

Dirty water? Not any more!

"There are tubes with wastewater that come here to this section where there is a smash robot...it gets all the cans and glass smashed and then it takes that and sends it off into the tubes…There will be a grate that collects all the trash"

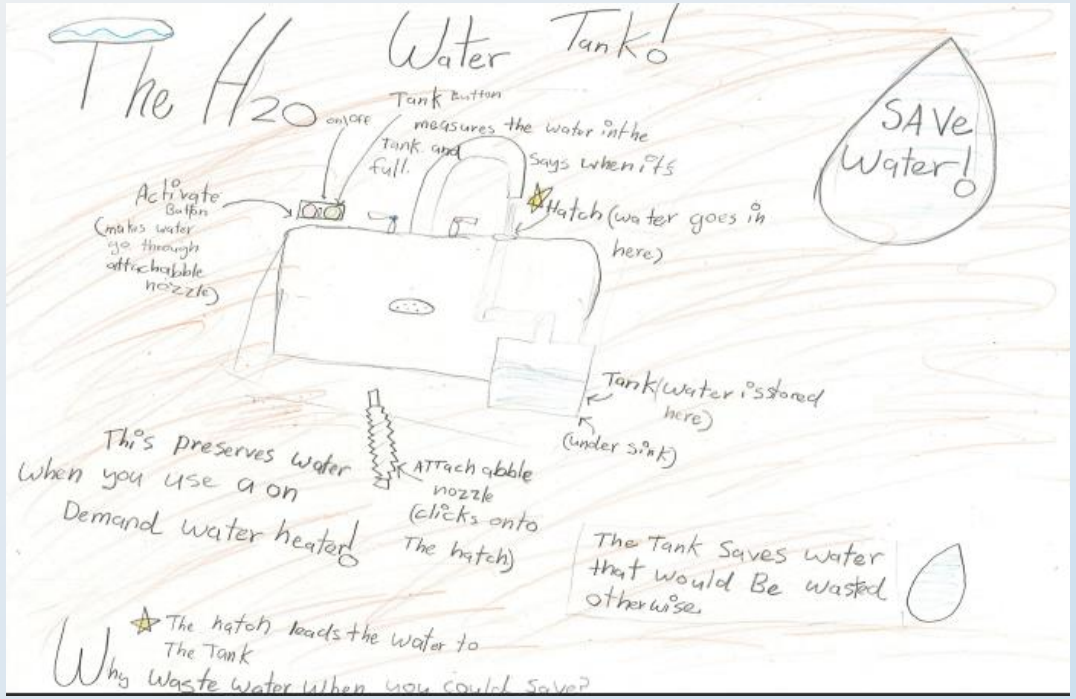
Gigi Geers

The Magic Motion Hose

“If you turn on our hose you have to go all the way in the backyard and that’s how it can be running for 5 to 10 minutes. The magic Motion Hose…doesn't turn on without you moving it. You can turn it on but in order to work you have to move it… my invention of the Magic Motion Hose will be useful to society because it will help not waste water when you turn your hose on”

Jacob Cravinho, Arya Huff, Clara Leason

The H2O Water Tank



"1st you need to move your faucet over to the hatch. Open the hatch…Then you can start running the tap to get hot water…If hot, move the faucet away from the hatch, and turn off the tank.

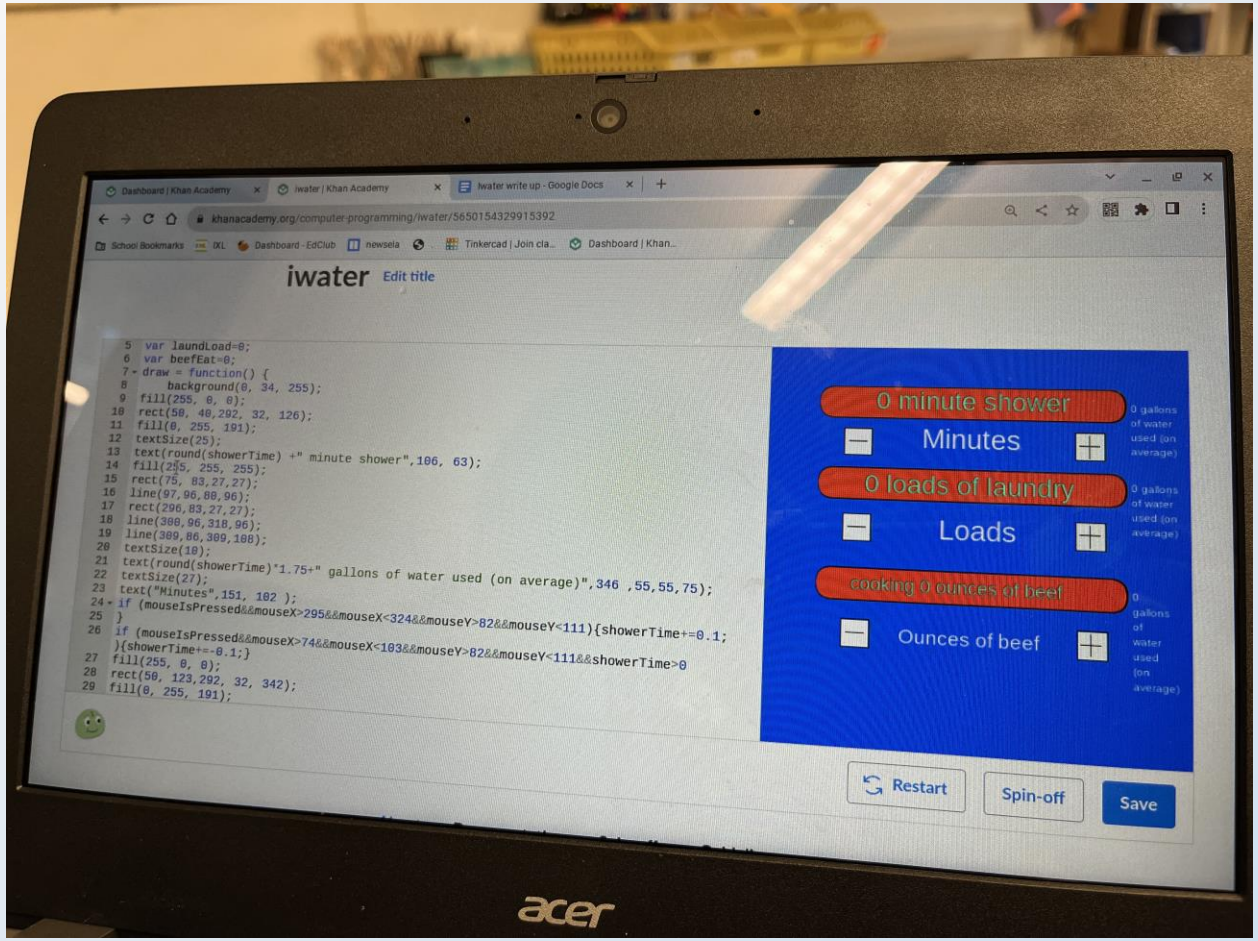
Now if you want cold water, turn on the tank and press the activate button. The pump pushes the water up through the attachable nozzle and into your sink!"

5th Grade

128 project entries

Madlyn Kahr & Miles Peoples

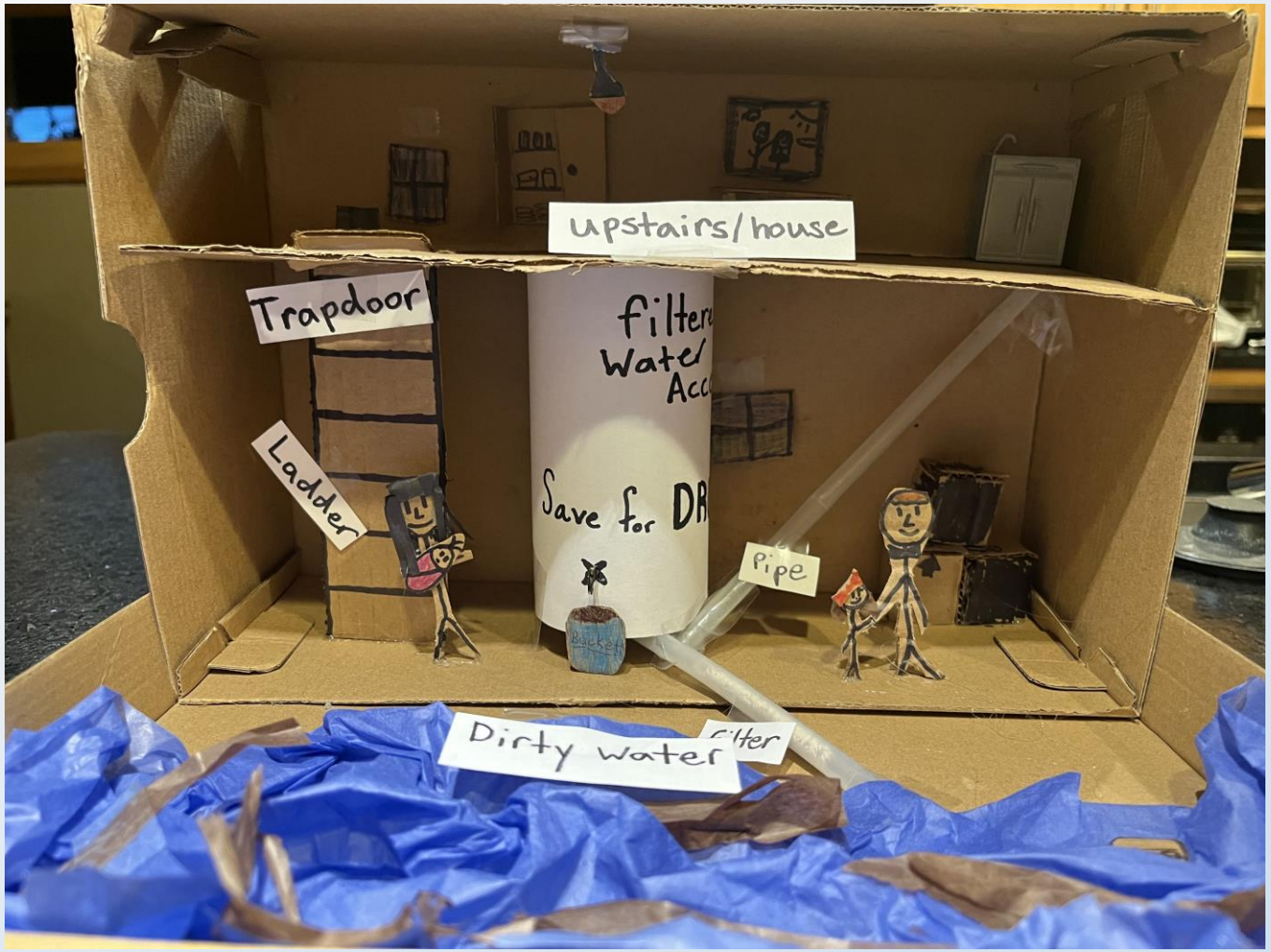
iWAter



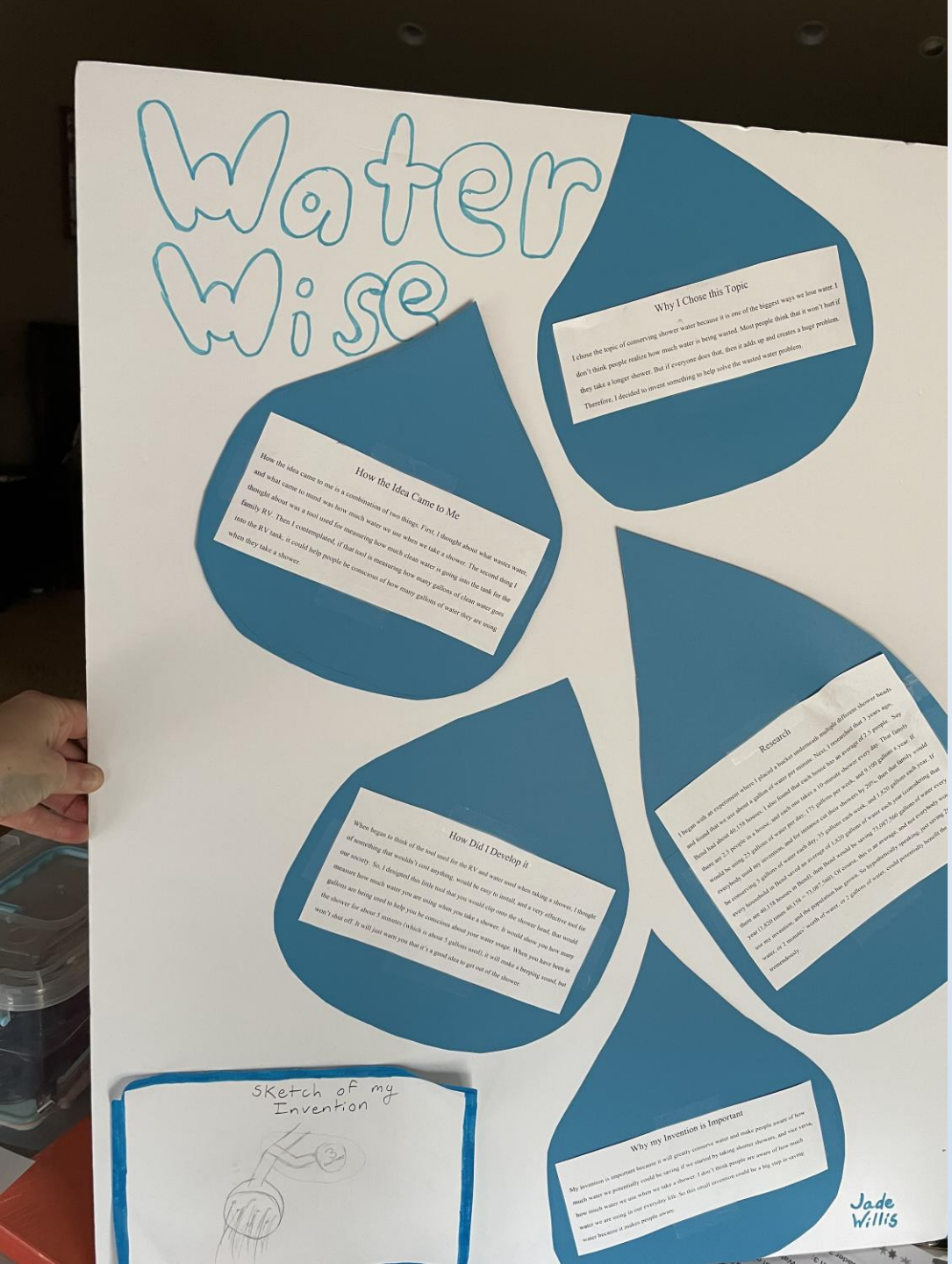
"iWater is an app that tells you how much water you use on a day to day basis. It then encourages you to use less water."

Hazel King & Sofia Eidukas

The Filtered Water Account



"Extra water is filtered and piped to a large tank under the house to be used in times of drought."



Jade Willis

Water Wise

"I designed this little tool that you would clip into the shower head, that would measure how much water you are using when you take a shower.

It would show you how many gallons are being used to help you be conscious about your water usage. When you have been in the shower for about 5 minutes (which is about 5 gallons of water), it will make a beeping sound…"

Claire Osborn

Beavers and Water

“My device is a groundwater meter that we’ll put along streams that we’re restoring using beavers. It will measure the amount of groundwater around the stream and give us data…

If there is low groundwater levels then it is not legal for you to harvest water from that area of the stream. If it is in the green zone and there’s a lot of groundwater then you are allowed to harvest from there.

Landon Crockford

Waterscape with Style

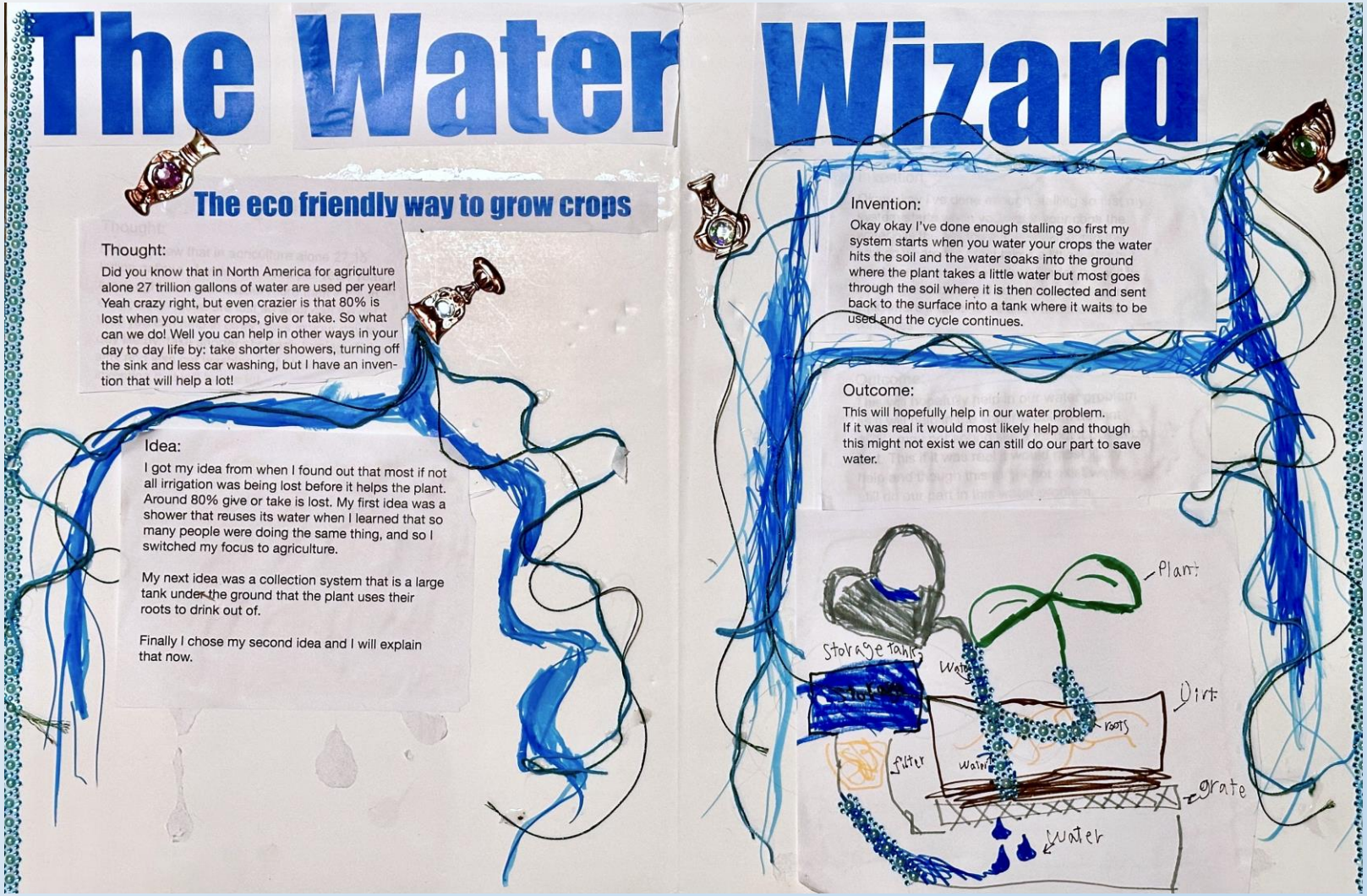
"If homeowners were to purchase and install my invention, this could be a huge cost saving to prevent major property damage [from flooding] and would definitely save water…

The water wheel generates electricity to the pump so it can pump water out of the yard and into the water cistern… it can then be piped over to the house for any gray water uses…"

Dan Dawson

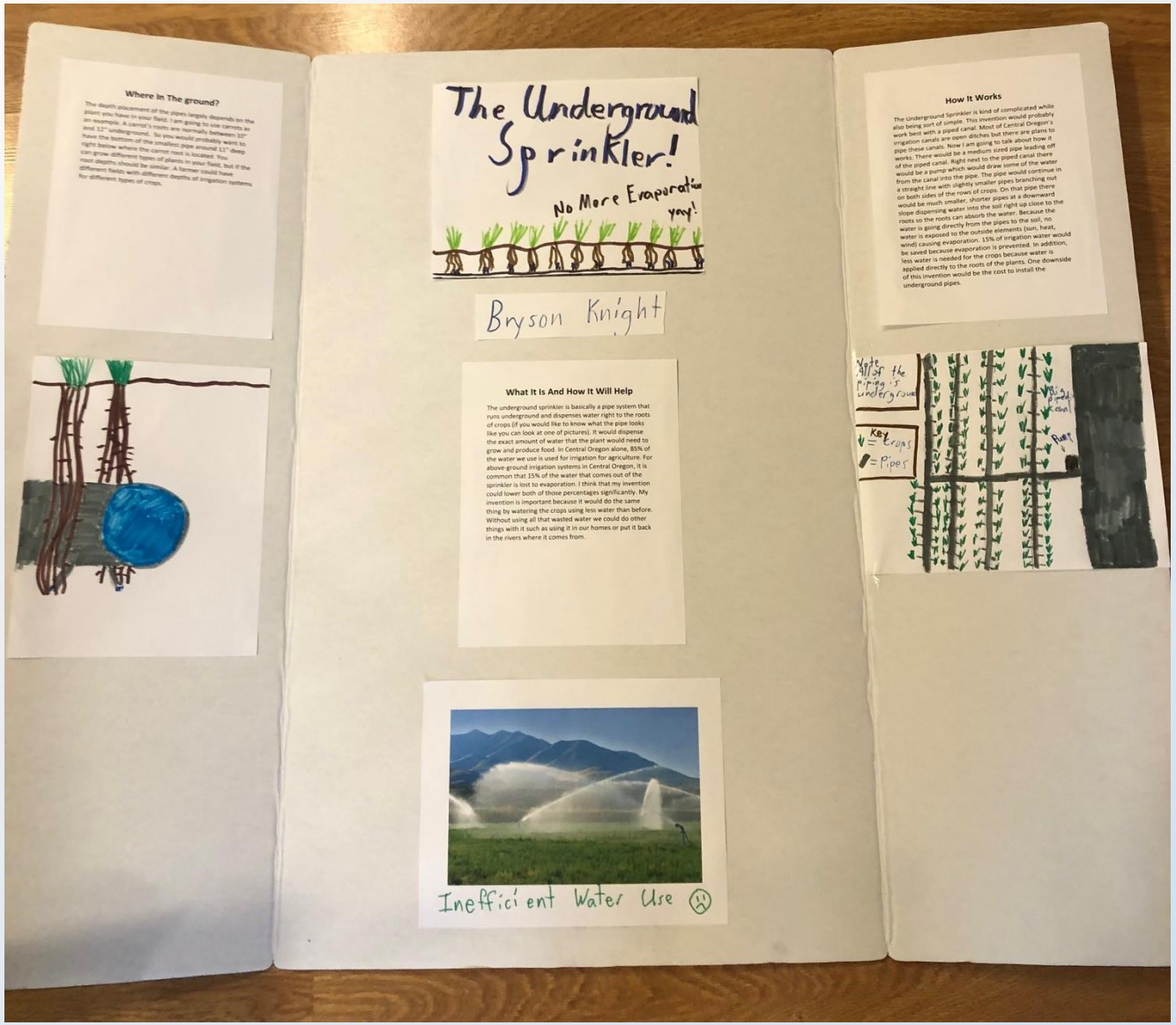
The Water Wizard

"It all starts when you water the plant. The plant takes it's little bit, but the rest goes down into a collection unit where it will be sent back up through a filter into a storage tank…where it can be used to water the plants again."



Bryson Knight

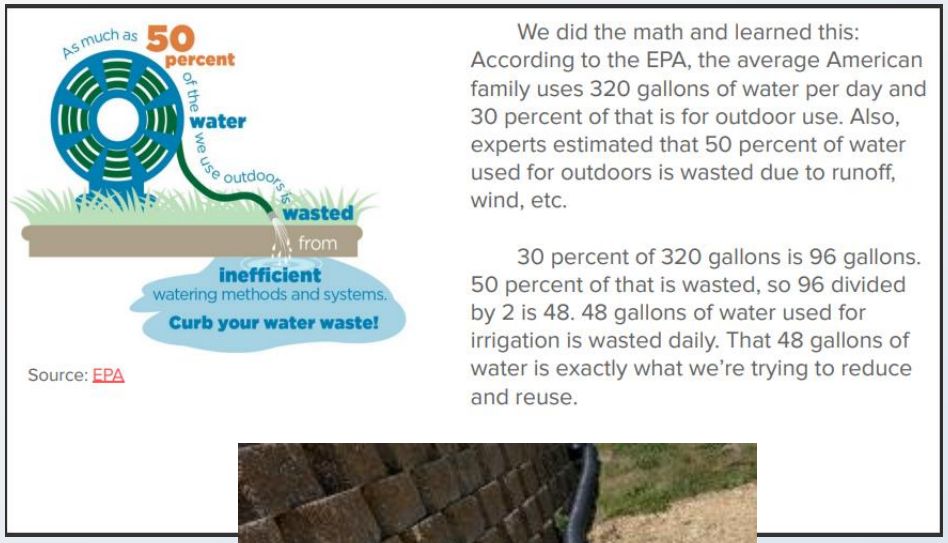
The Underground Sprinkler



"The underground sprinkler is basically a pipe system that runs underground and dispenses water right to the roots of crops."

Will Salmon & Fisher Steele

Slurp ‘n Spray

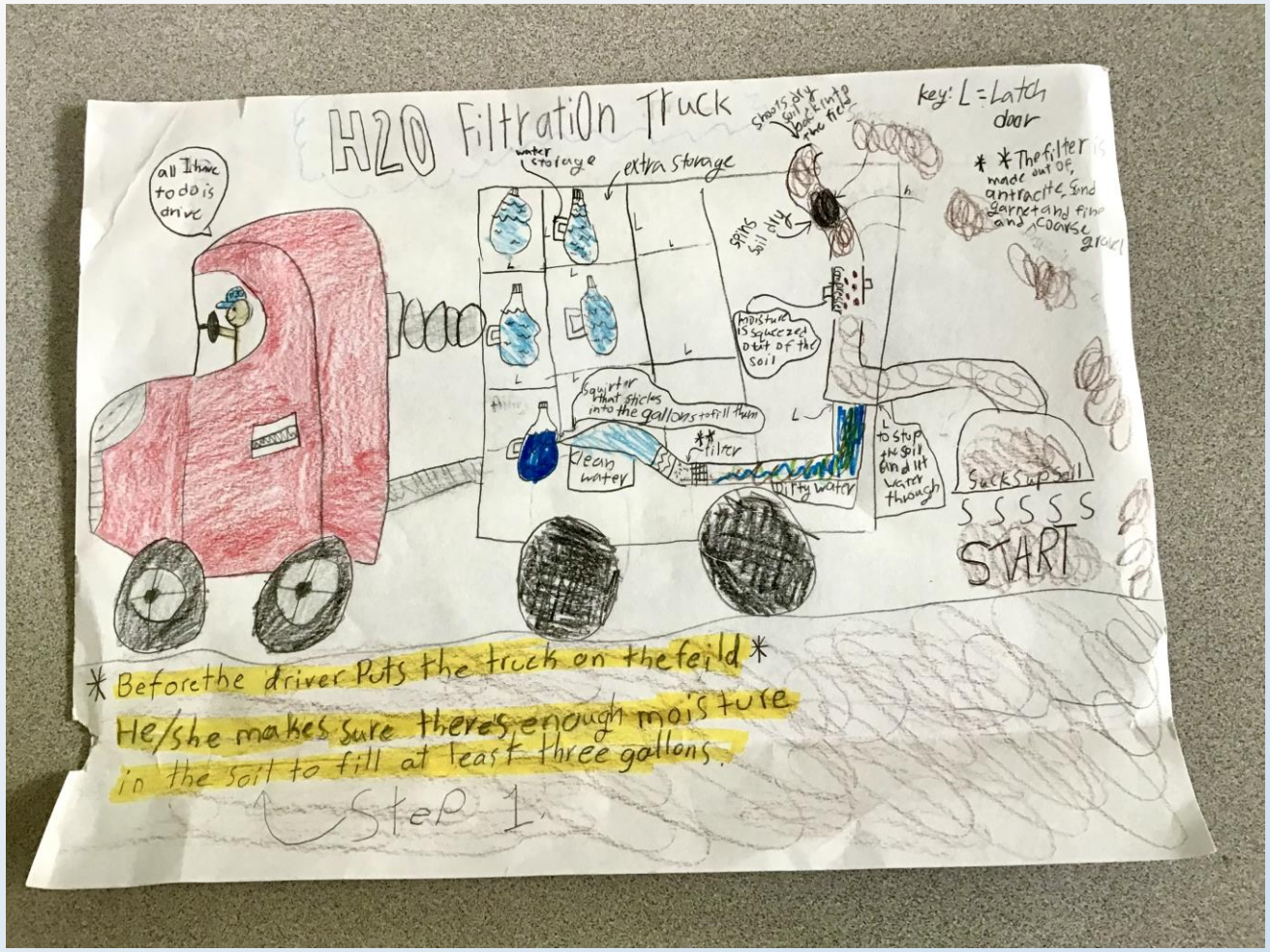


“… one of the biggest water problems is sprinkler water on the side of the road that’s not affecting anything.

Here’s how it would work. (It’s based around a French drain.) There’s a vacuum on the end and a tank on the bottom to hold the water in…and it could be sucking up the water without you having to stand there.”

Eva Hessen & Raylee Sylvester

H2O Filtration Truck



"I came up with the idea of making the H20 filtration truck that can filter the water out of the soil from crops right before the winter."

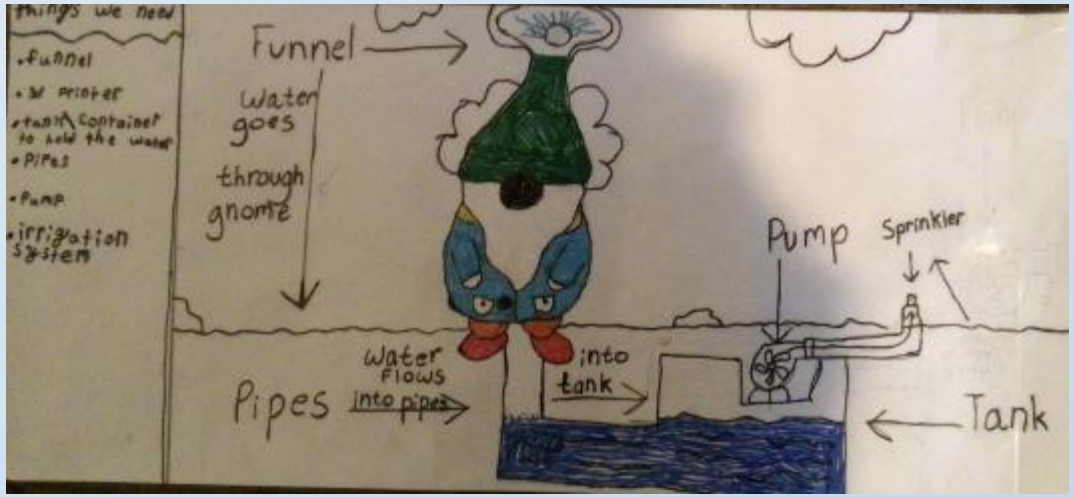
Natalie McAteer & Ava Ray

"We tried to make the design of a garden gnome that catches water when it rains or snows…

When it rains the water goes into the funnel and blows in the gnome. Next the water flows into an underground pipe. The pipe takes the water to a tank underground. From the tank there's a pump. The pump pumps the water through a pipe to your sprinklers so you can reuse the water.

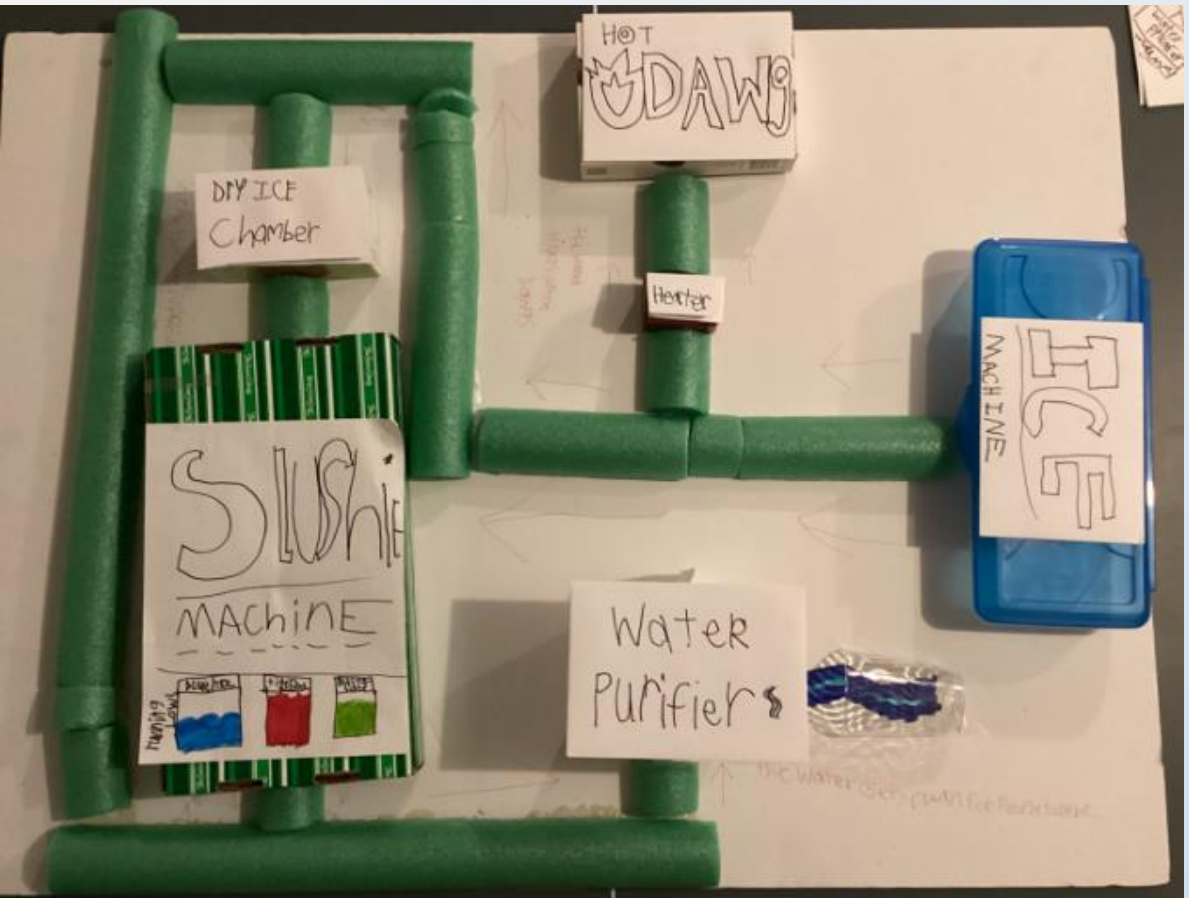
It encourages zero-scaping because people can use a cool decoration instead of grass."

The Aquanome

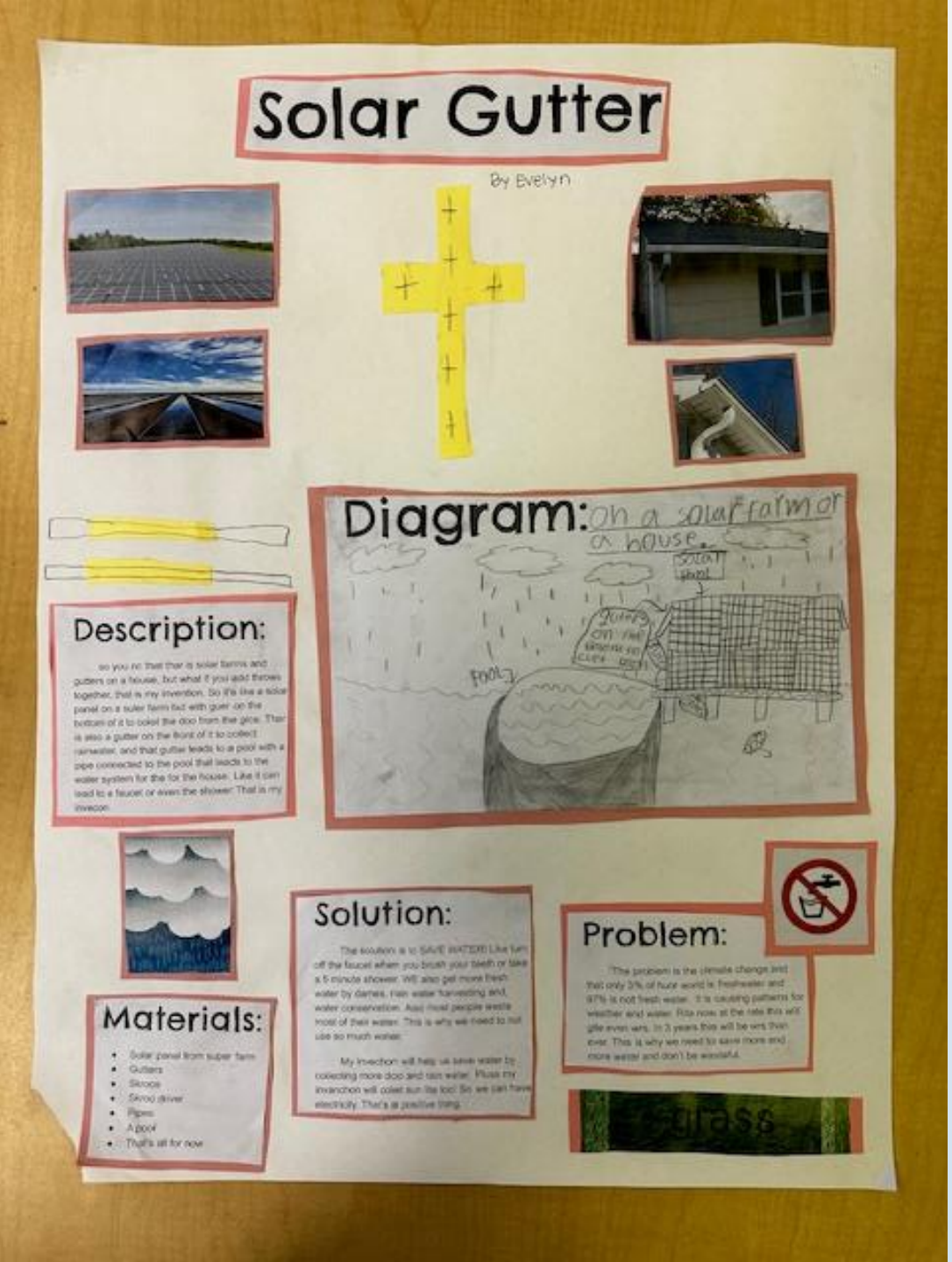


Dillon Ostendorff

Gas Station Water Recycle 3000



"The invention is the use recycling of water at a gas station from an ice machine by heating hot dogs, cooling slushies, and finally recycling the water as drinking water."



Evelyn Webb

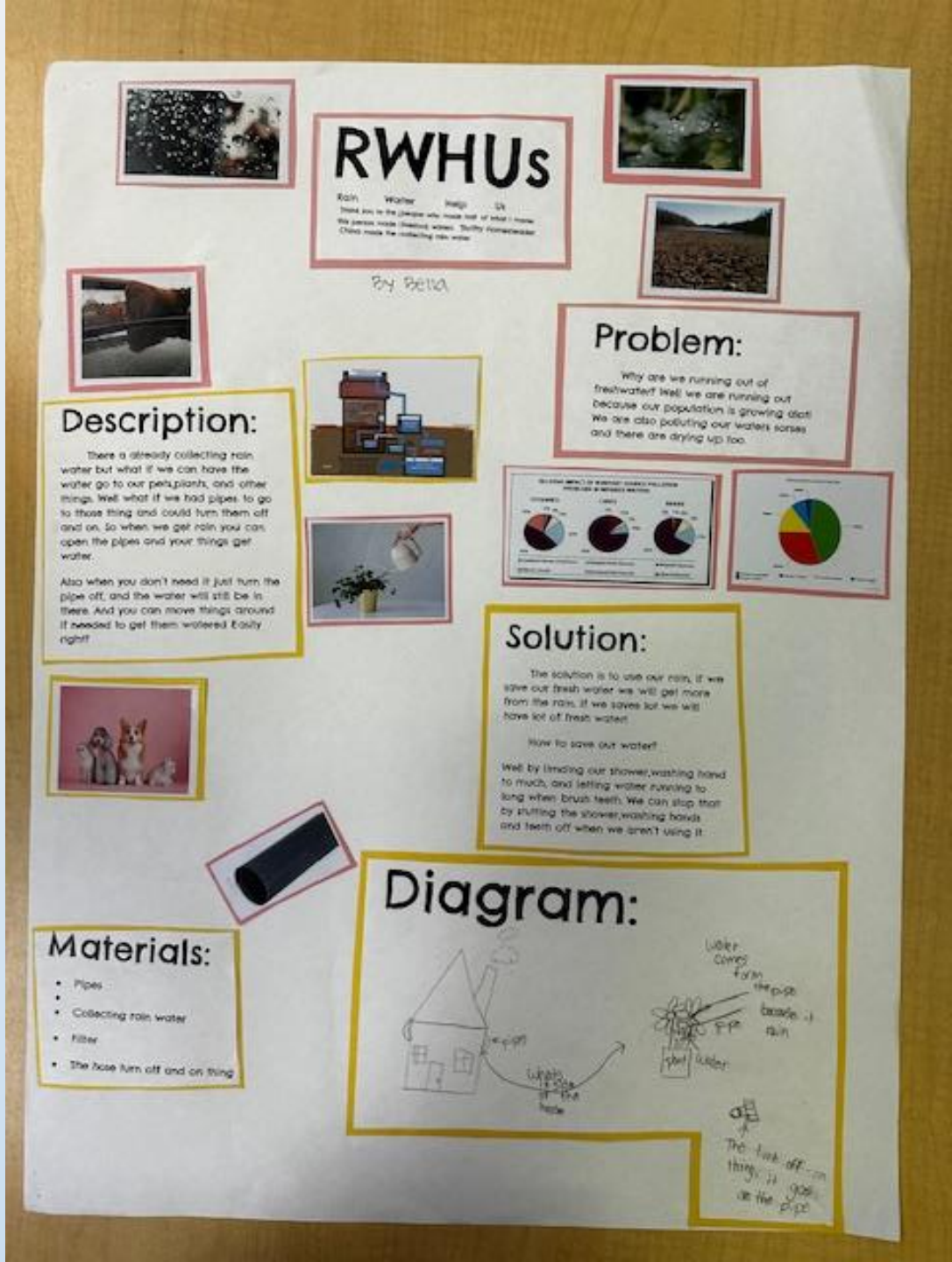
Solar Gutter

"This is like a solar panel on a solar farm but with glue on the bottom of it to collect the dew from the ground. There is also a gutter on the front of it to collect rainwater."

Bella Evans

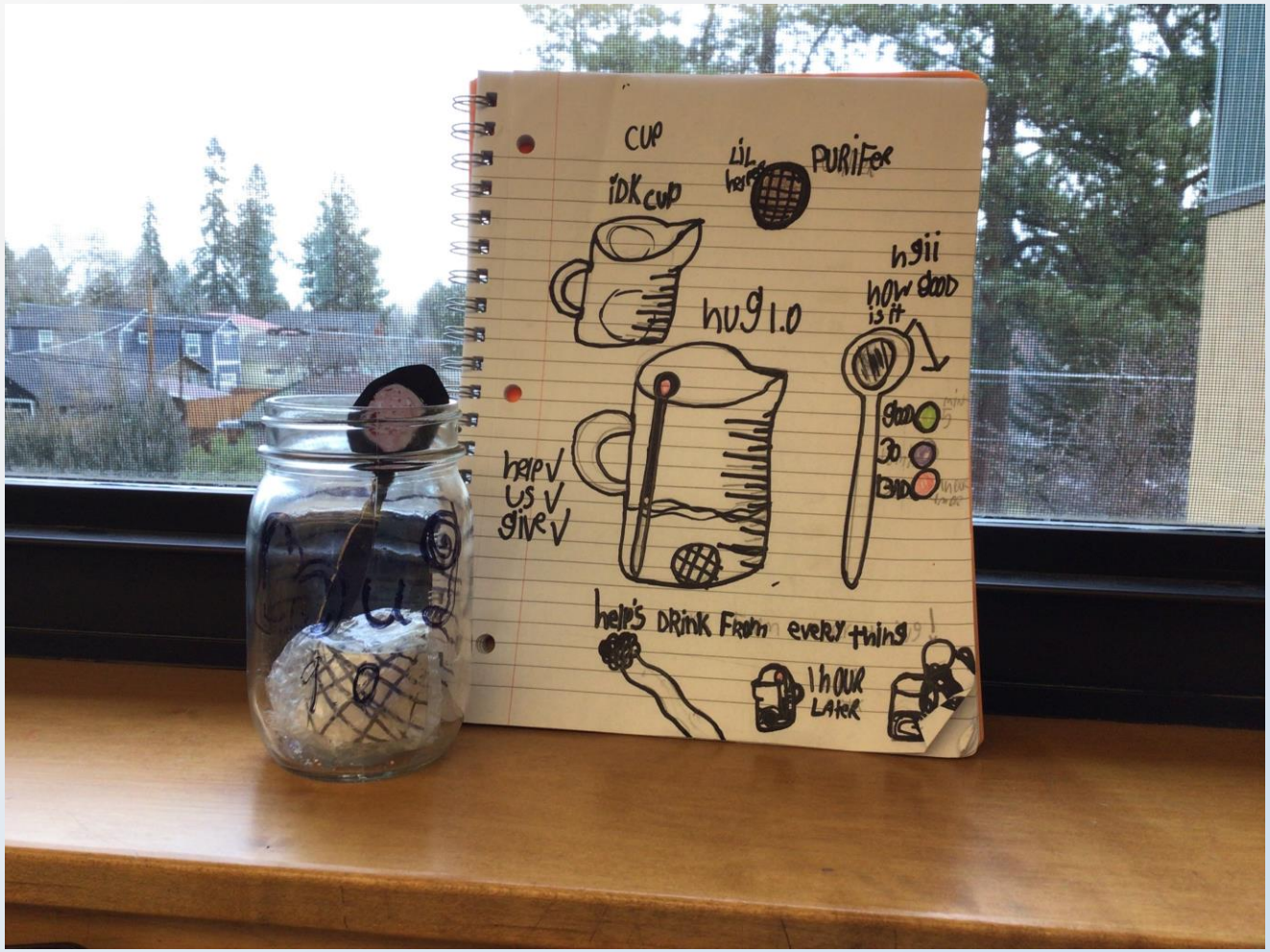
RWHUs

“This is a water filtration system that collects rain water and then distributes it to our livestock, plants, and pets.”



Luna Kinz-Bush & Zepeda Serna

Hug.1.o



“It tells you how good the water is and how long the water needs to be purified…”

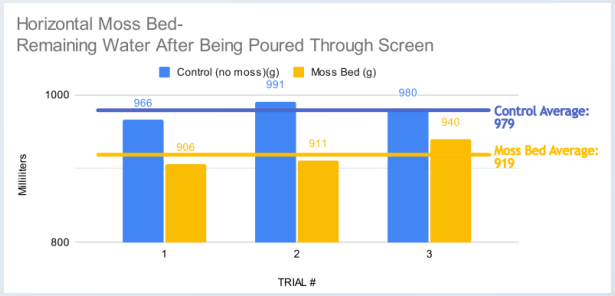
Middle School

159 project entries

Micah King

AquaSolve

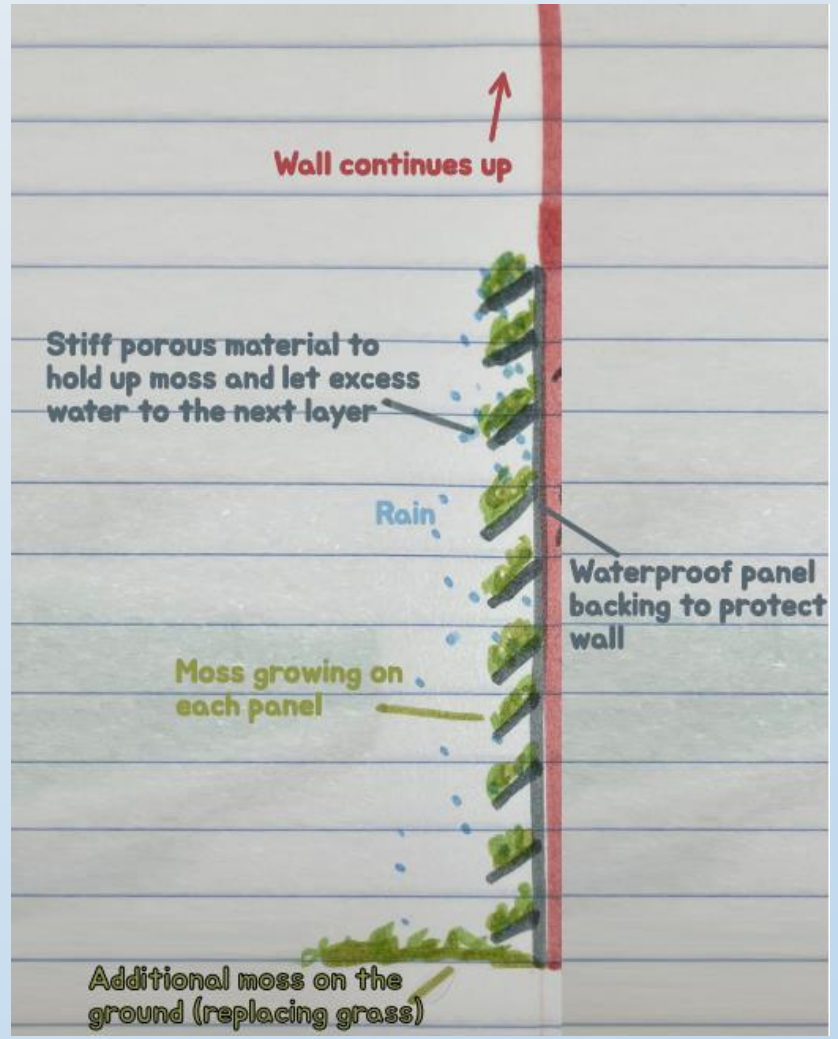
Grand Prize Winner!

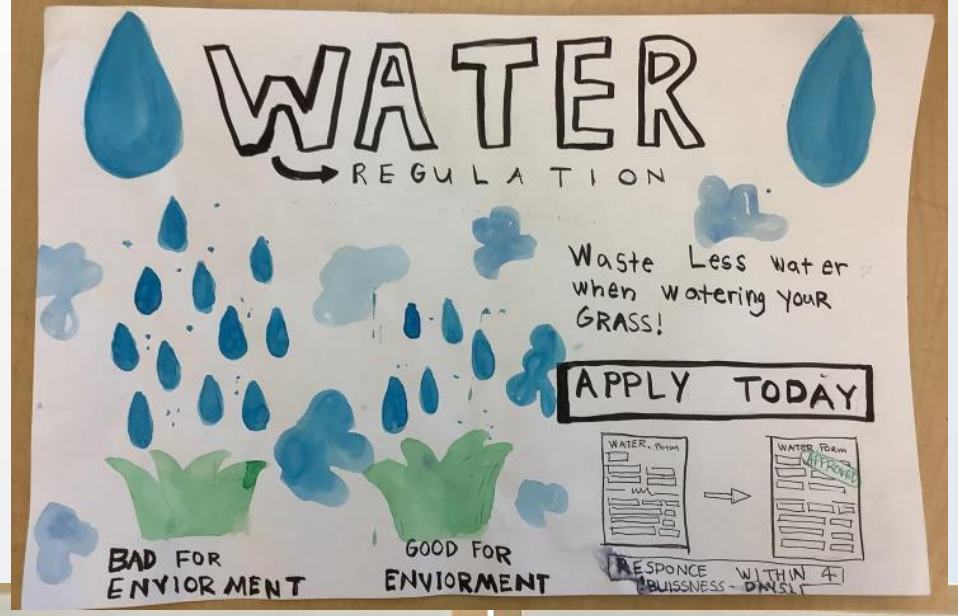


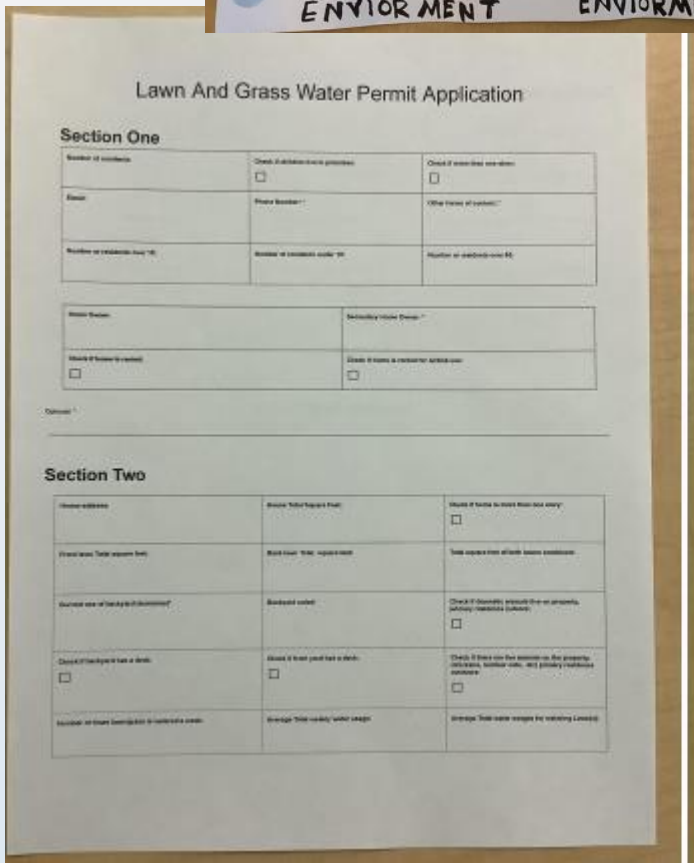
"Every day, New York officials pump water out of the subway, but sometimes there is just too much. Like in the event of the wettest September. Even the underwater car tunnels connecting the boroughs filled with water during the heavy rain.

My model reduces the amount of flooding by catching the rainfall that is close to the buildings and absorbing it into moss.

The panel of slats is located on the lower part of the building. The panel goes all the way across each exterior side of the building. Each slat holds a bed of living moss. The backing panel is waterproof to protect the sometimes very old clay brick buildings... The Growing panels face down for aesthetics and to allow water to run off if moss is saturated."

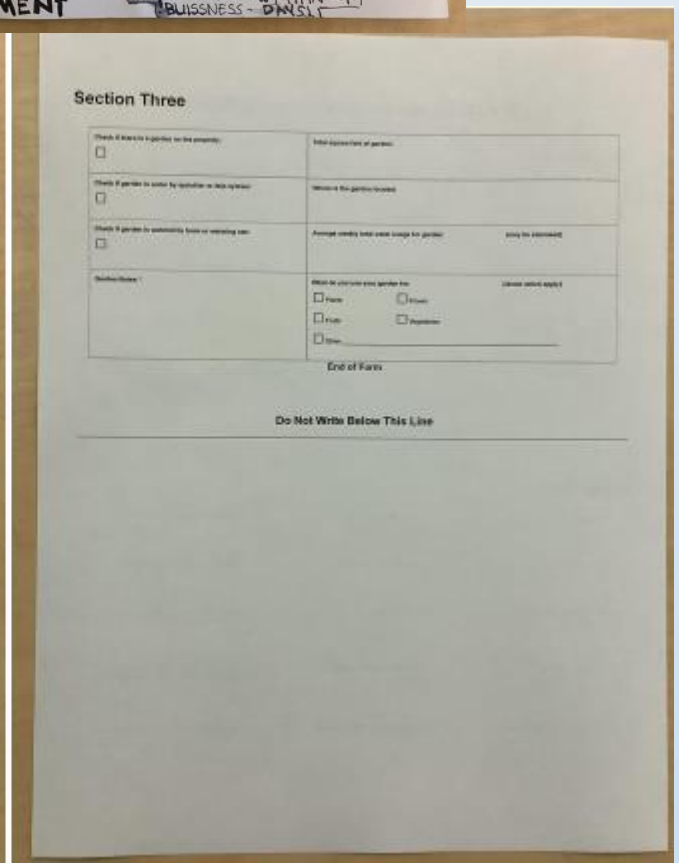





Lawn And Grass Water Permit Application

Section One

Section Two


Section Three

End of Form

Do Not Write Below This Line

Lucas Myers

Regulating Water

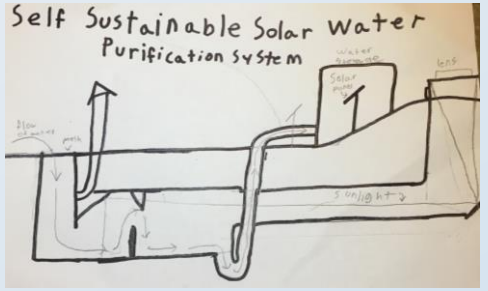
Runner Up

"Each homeowner will be given a form to fill out that will include some information about the house like lawn square footage or other details that will help us calculate the minimum amount of water the lawn would require. In the same form we would ask for some additional optional information about the environment like who lives there, how long they have lived there etc... Of course each state will have different climates so each state will look a little different. Schools and public areas will take priority over personal residences."

Runner Up

Graham Finley

Self Sustainable Solar Water Purification System



"The Self Sustainable Solar Water Purification System utilizes ocean waves, gravity, and the sun to create fresh drinking water from seawater for anyone in the world.

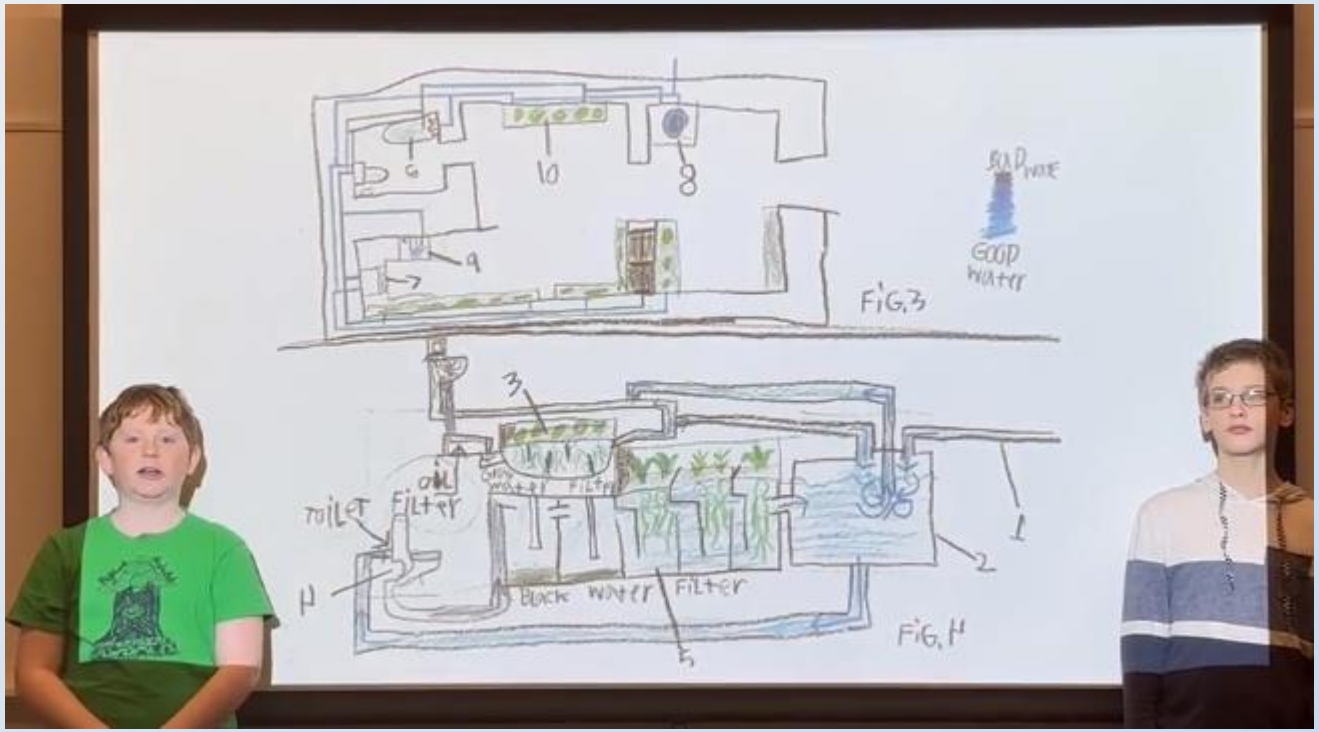
It works by using concentrated sunlight to boil ocean water. The condensation that forms is collected and the fresh water that accumulates is made available for public drinking water."

Ryker Besser & Chris Kuhn

Honorable Mention

Plant Based Water Filtration System For Homes

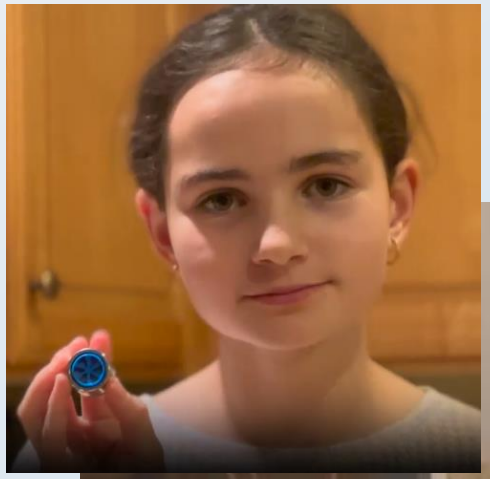
"This is our plant based water filtration system that would be built into houses to make sure all water is recycled without leaving the house. This new, efficient system would allow people with low access to water an ability to make the most of the water they do have."



Solenne Perle

Honorable Mention

WaterWise383



"My idea is to create a faucet aerator that has a Bluetooth sensor connected to your phone, so you can see how much water you have been using.

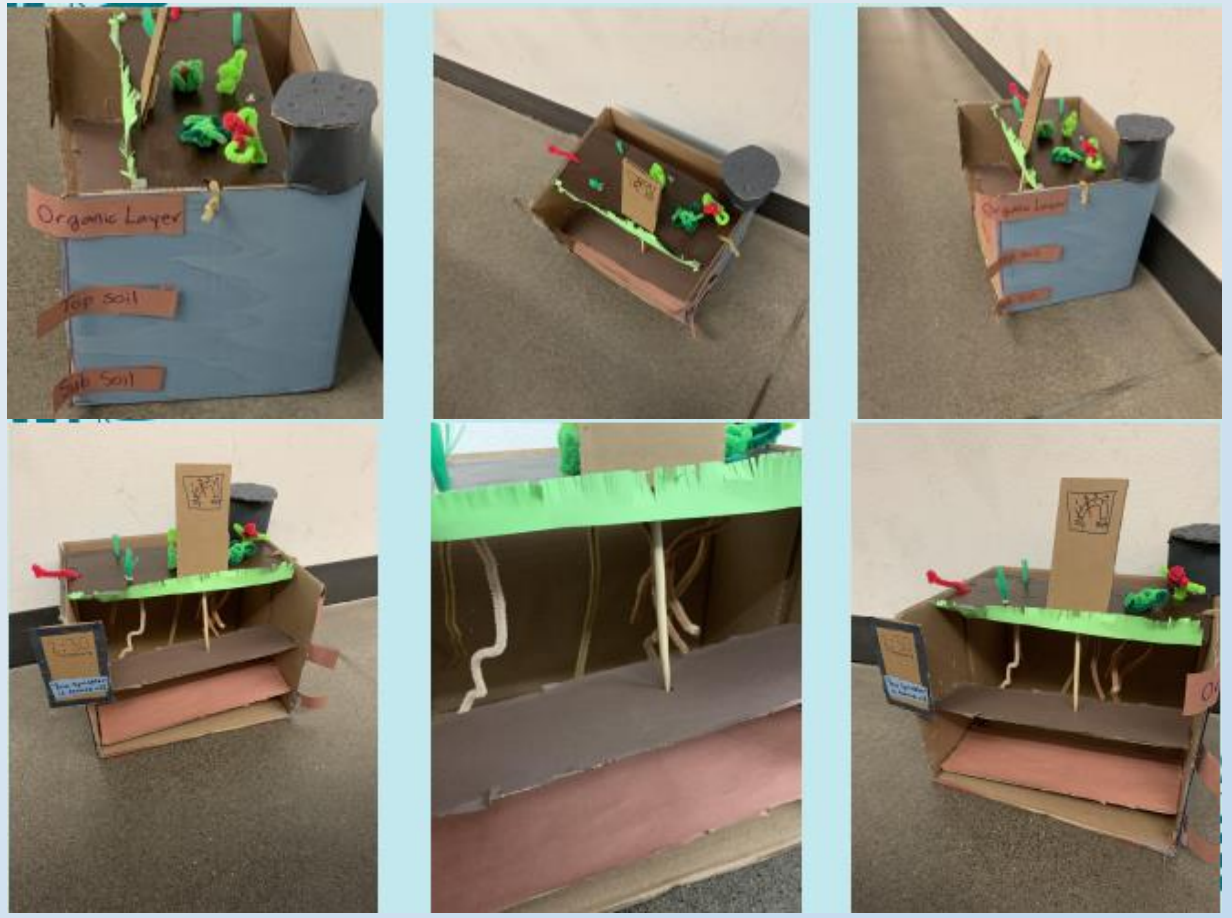
On the app, it allows you to make a target for each day. You can also earn badges and awards for how much water you save. If you are competitive like me, you can compete against your friends and family."

Honorable Mention

Hazel Adams & Lulu McMahon

Sprinkler With A Water Sensor

“Our idea is a sprinkler system with a soil moisture sensor attached.
You can change the setting on the sprinkler depending on how much moisture the species of plants need.”



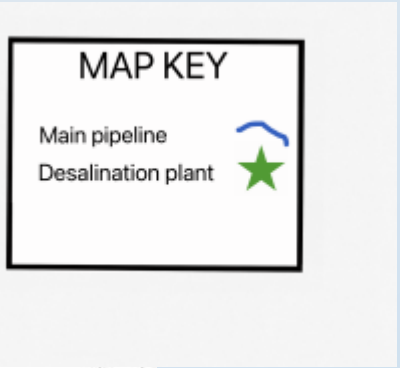
Brenner Harrington

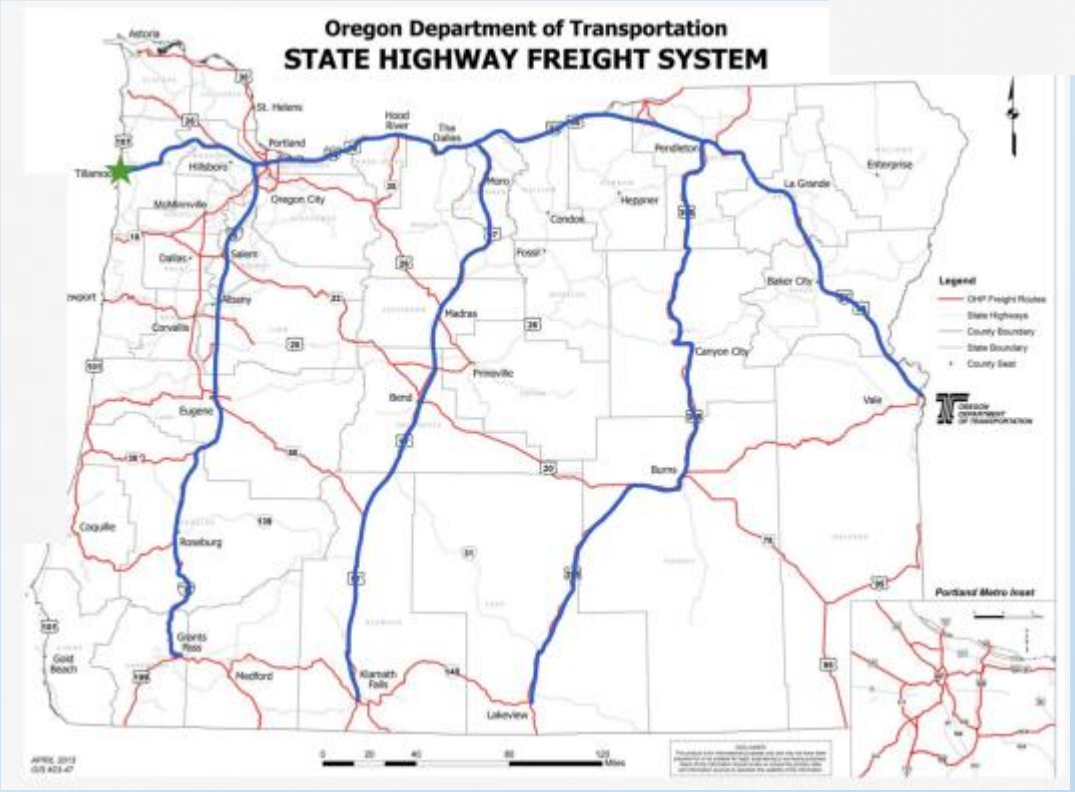
Honorable Mention

Desalination

Desalinated Ocean Water for Farm Uses

- Plants can handle 70 milligrams of salt per liter
- Get rid of 34,930mg salt to make it safe to water plants
- (Get approved by the state) massive facility on land
- Sell salt(34,930 mg in 1 liter)
- Micro desalination plant can be delivered to farms on semi trucks
- Gives money to the farmers as an incentive for having desalination plants on their property
- I84 highway access
    - Pipes run beside highways to major farms





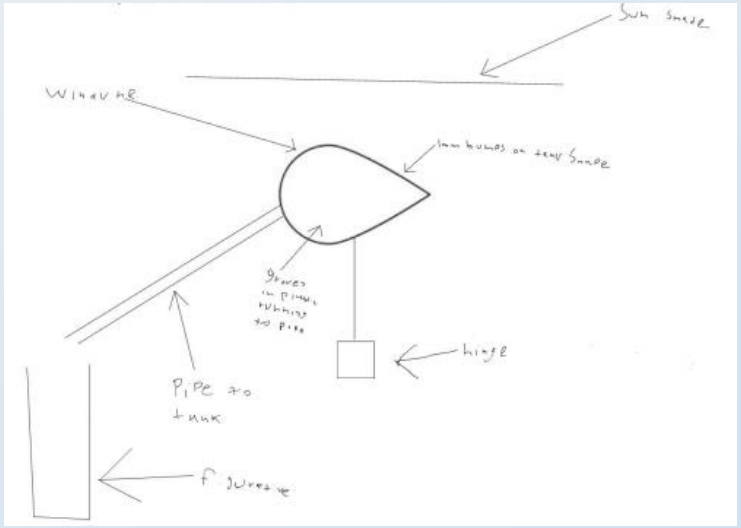
Ari Miller

Mist Collector

Honorable Mention

"My idea for a fog collector based [off] of the Namibian beetle…

There are 1mm bumps on the surface coated in some sort of hydrophilic (water loving) chemical…The ridges in between the bumps would have to be coated in hydrophobic substances."



Picture of the Namibian beetle whith mist-collected water on it's back from science.org

Anya Kellberg

Honorable Mention

Heavy metal pollutants removal

"[Pillbugs] are one of the best organisms for cleaning up heavy metals.

My idea for protecting natural resources is using Pillbugs to decontaminate water. Scientists will use selective breeding and a selected environment to make the isopods used to being in water.

With this they will be spread across heavy metal polluted waters and will clean them with the same [processes] they use in soil."

Lucie Wittwer

Honorable Mention

Water Is Life

A proposal to pipe Bend's canals.

"In Bend, Oregon, we have two canals… Both these canals are open canal systems, meaning they are prone to evaporation and seepage. This seepage means that we lose water that could go to agricultural uses. When we lose this water we extract more from the river and the river begins to dry up. Also, if the river dries up, then there is less water to put in the canals and less water for agriculture."

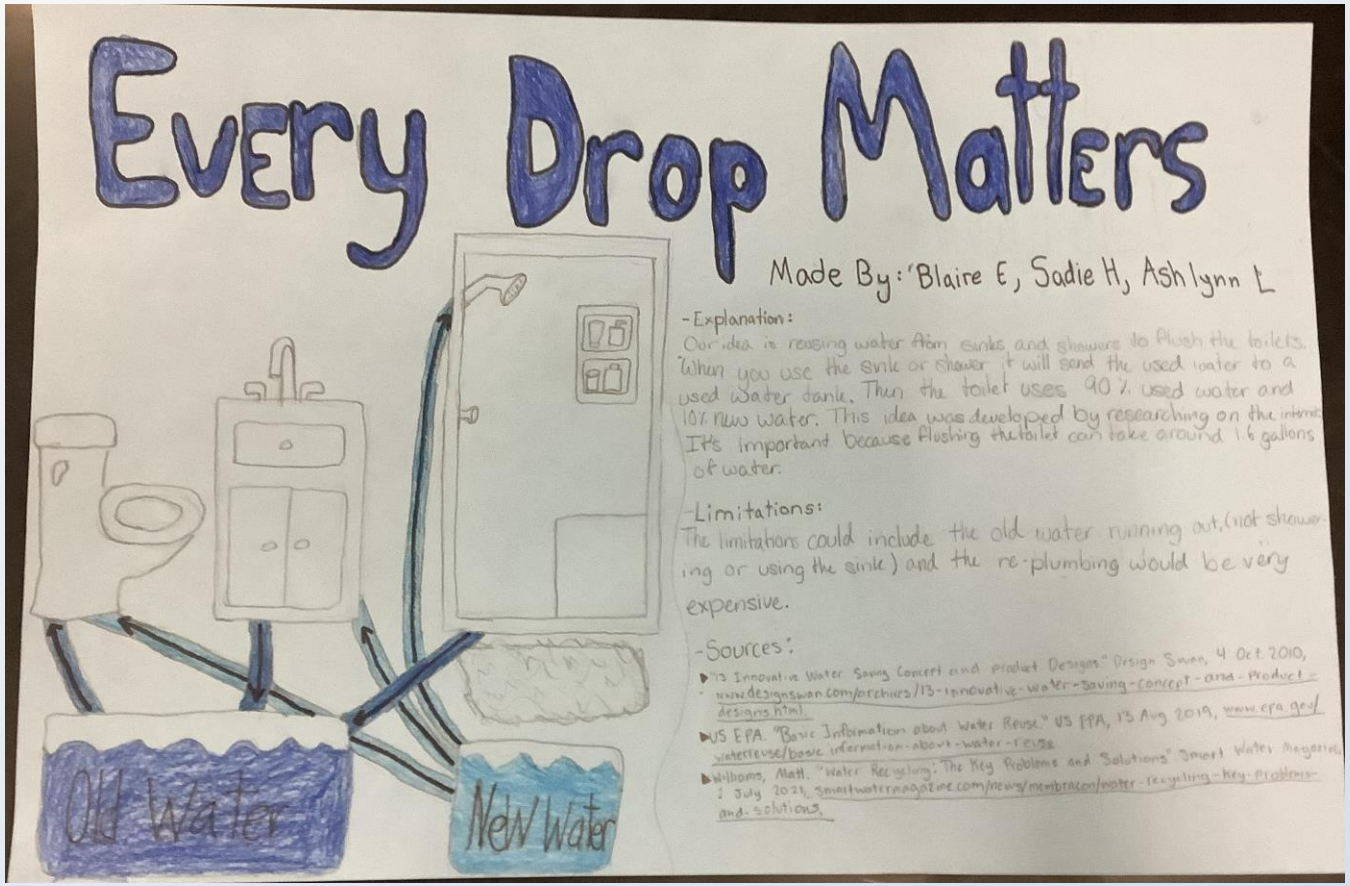
Modern Pilot Butte Canal

Historic Pilot Butte Canal

Honorable Mention

Blaire Eckman
Sadie Hanson
Ashlynn Lang

Every Drop Matters



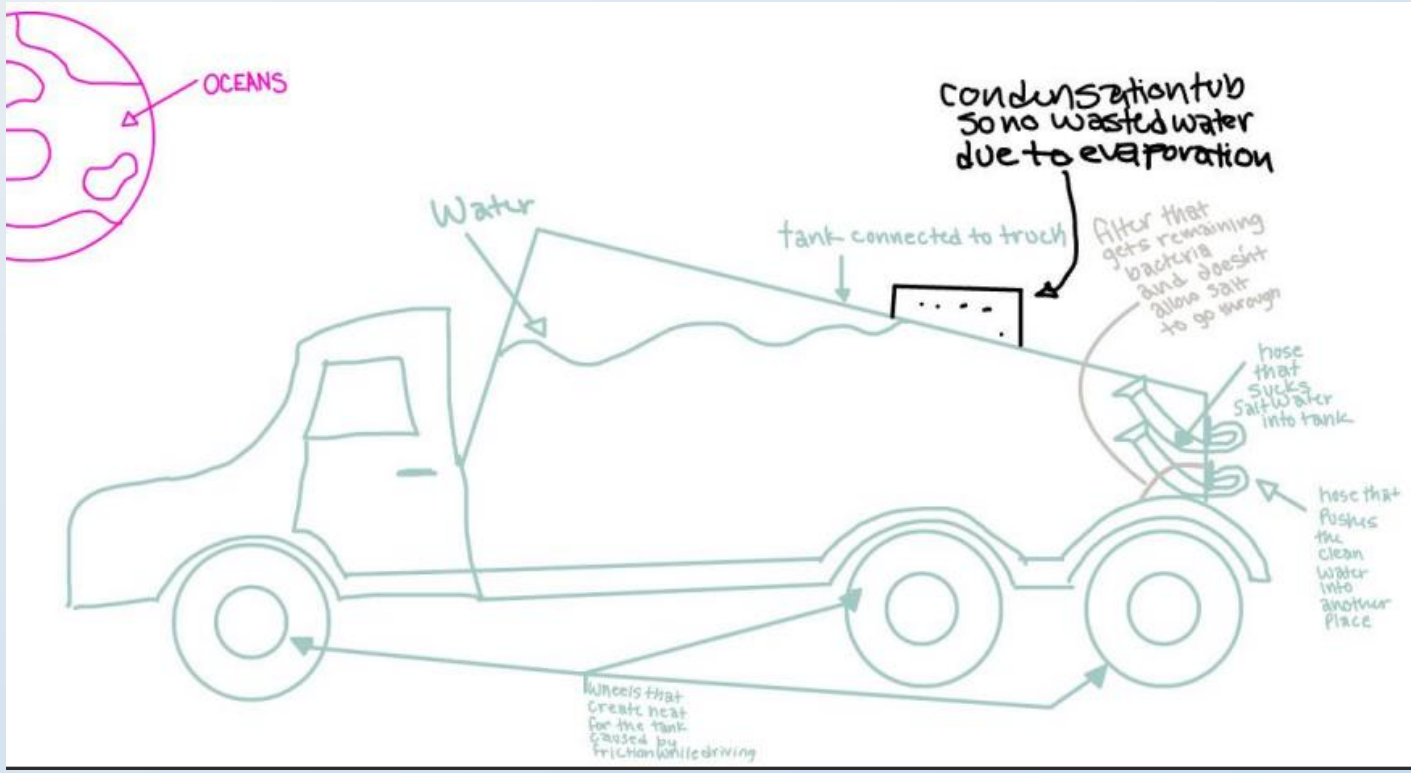
"Our idea is reusing water from sinks and showers to flush the toilets…the toilet uses 90%used water and 10% new water."

Kaylee Allen & Lily Pszczolkowski

Honorable Mention

The Saltinies

"...we combined a desalination tank and a moving vehicle. The wheels create friction across the road while the vehicle is moving. it creates heat that will boil the water to help get rid of all the bad toxins and bacteria. There's a condensation tub at the top of the tank that captures the condensation so there will be no wasted water."

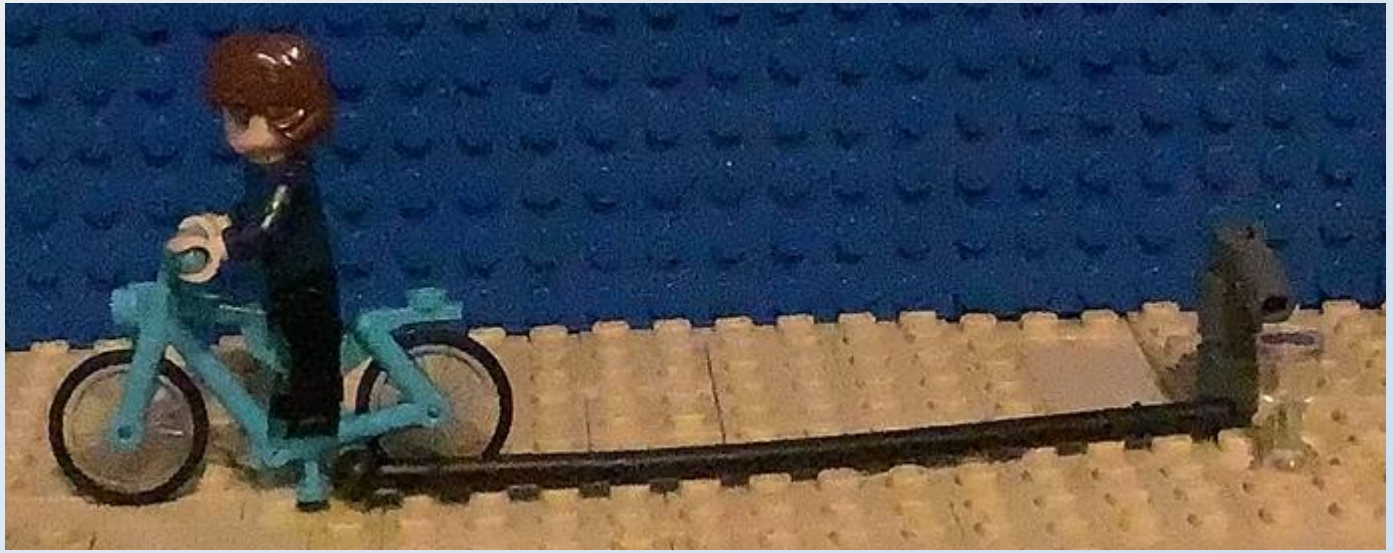


Liam Chapple

Honorable Mention

Bike Pump

"Somebody comes and rides the bike, and it sends electricity through a cord over to the pump, which pumps clean water from underground."

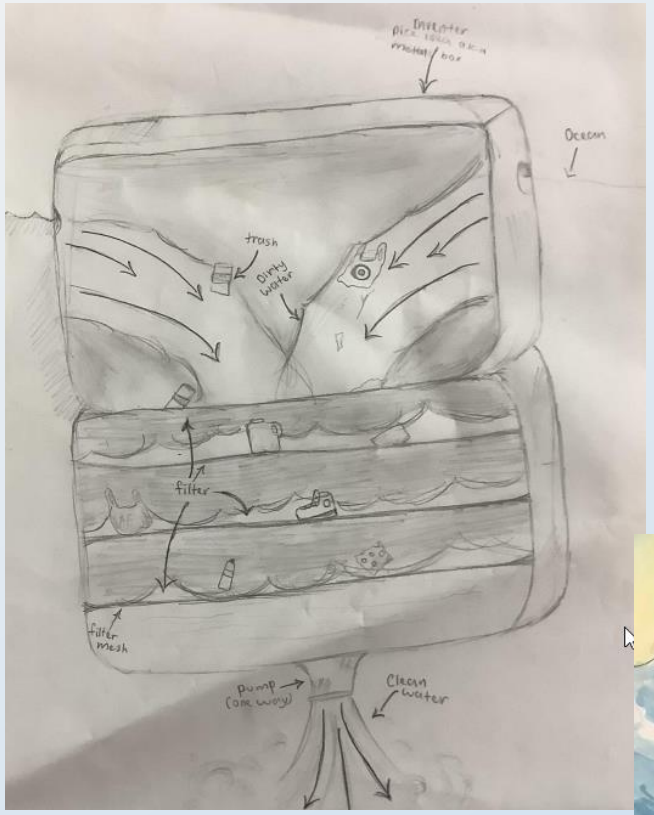


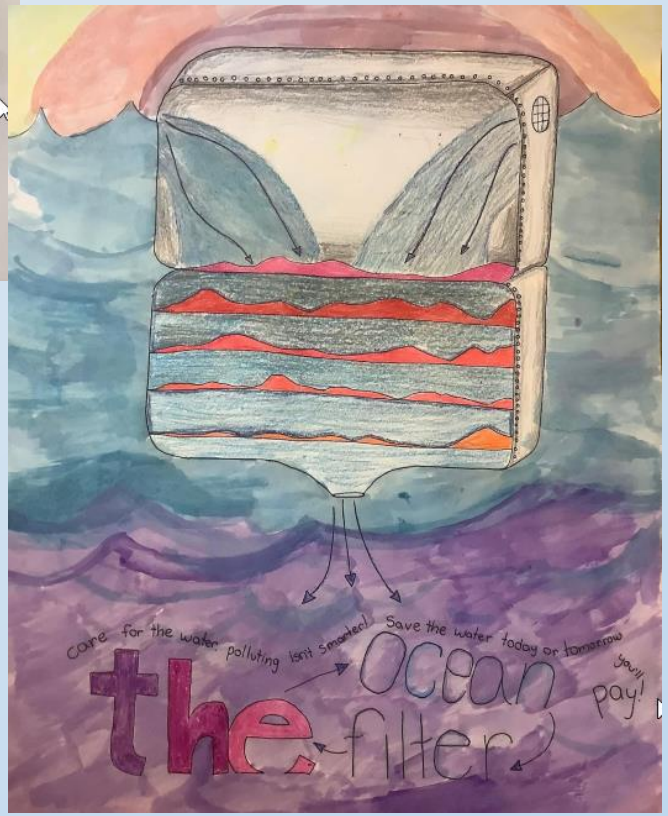
Zuri Bekkari & Arianna Morley

The Ocean Filter

Honorable Mention

"This two-box microplastic catcher has four different filters to catch as much microplastic and possibly dirt as possible, avoiding catching the bigger pieces of plastics without the little pieces. At the bottom of the lowest box, there is a one way exit to pump out the cleaned water... When it gets too full of plastic, there will be a GPS locator on it so people can find where they are in the ocean, which is close to a river opening."

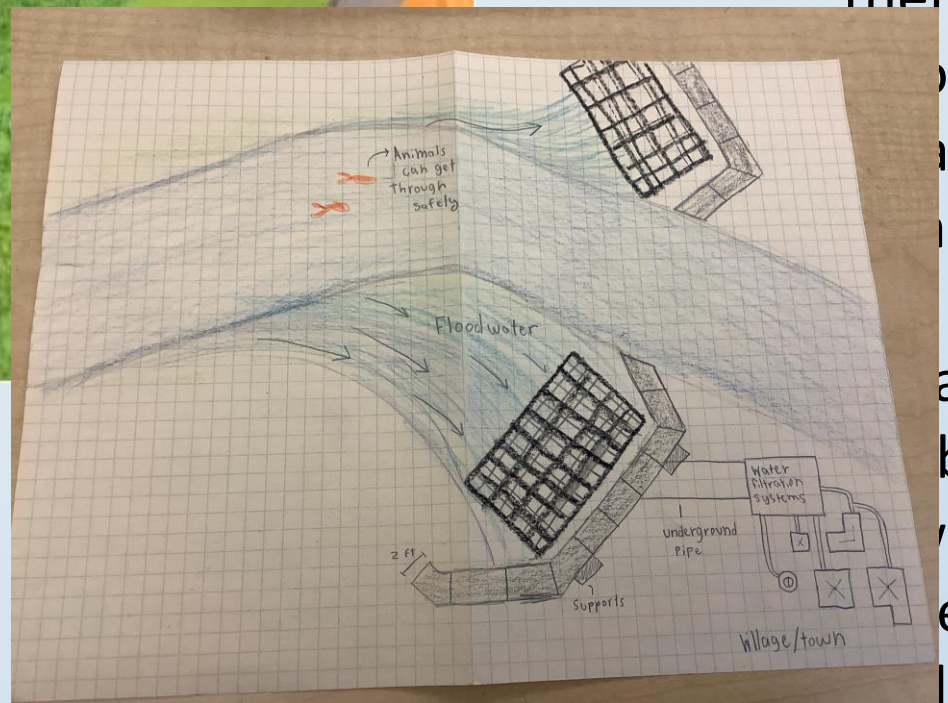




Will Berliner, Jaden Mason, Nathan Parsons

Flood Chugger

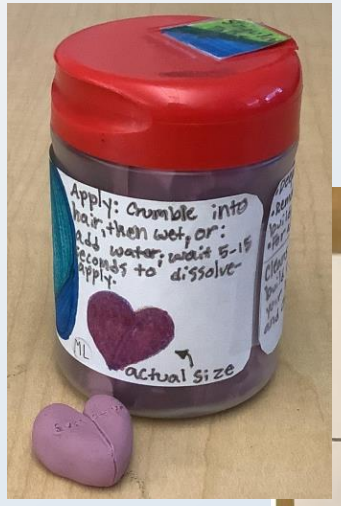
Honorable Mention



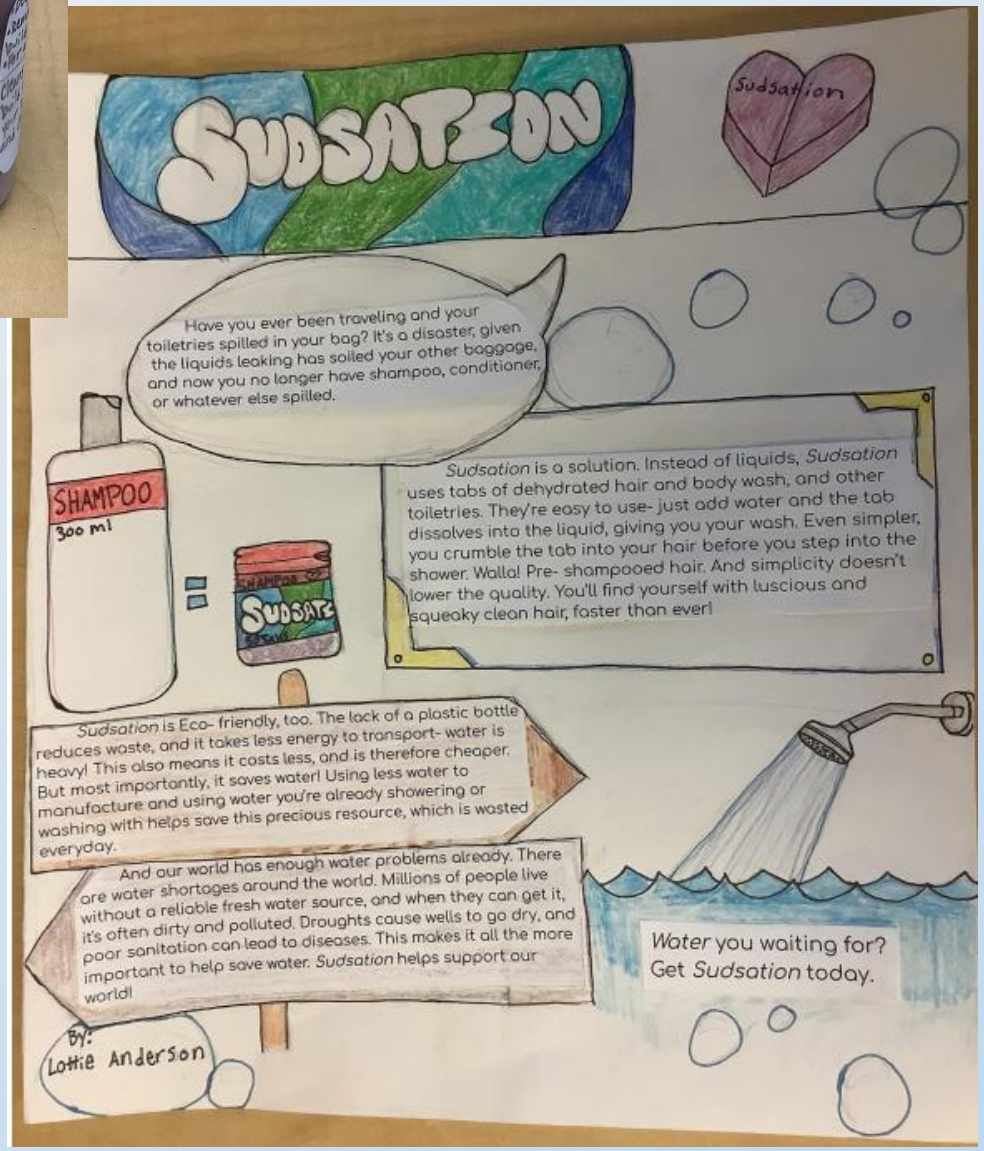
"Floods are horrible, destructive things where thousands of people lose their homes, their possessions, their loved ones, and their own lives. Our solution is two oncrete walls on either side of ny river. Our cement base is ixed with sodium polyacrate. Sodium polyacrylate is an absorbent polymer that can bsorb 800 times its weight in vater, and if there is any extra er overflow from the pipes, the ll can easily and quickly absorb

Lottie Anderson

Sudsation



Honorable Mention



"Sudsation uses tabs of dehydrated hair and body wash, and other toiletries. They're easy to use- just add water and the tab dissolves into the liquid, giving you your wash. Even simpler, you crumble the tab into your hair before you step into the shower. Walla! Pre- shampooed hair."

High School

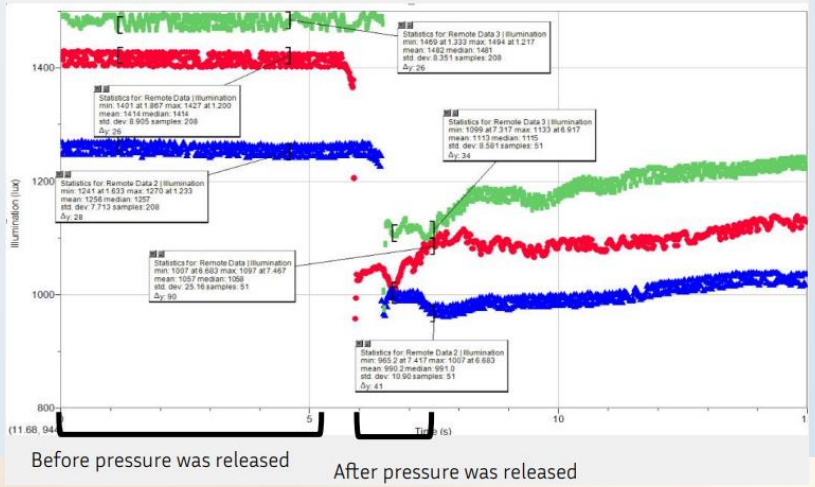
7 project entries

Grand Prize Winner!

Skye Knox

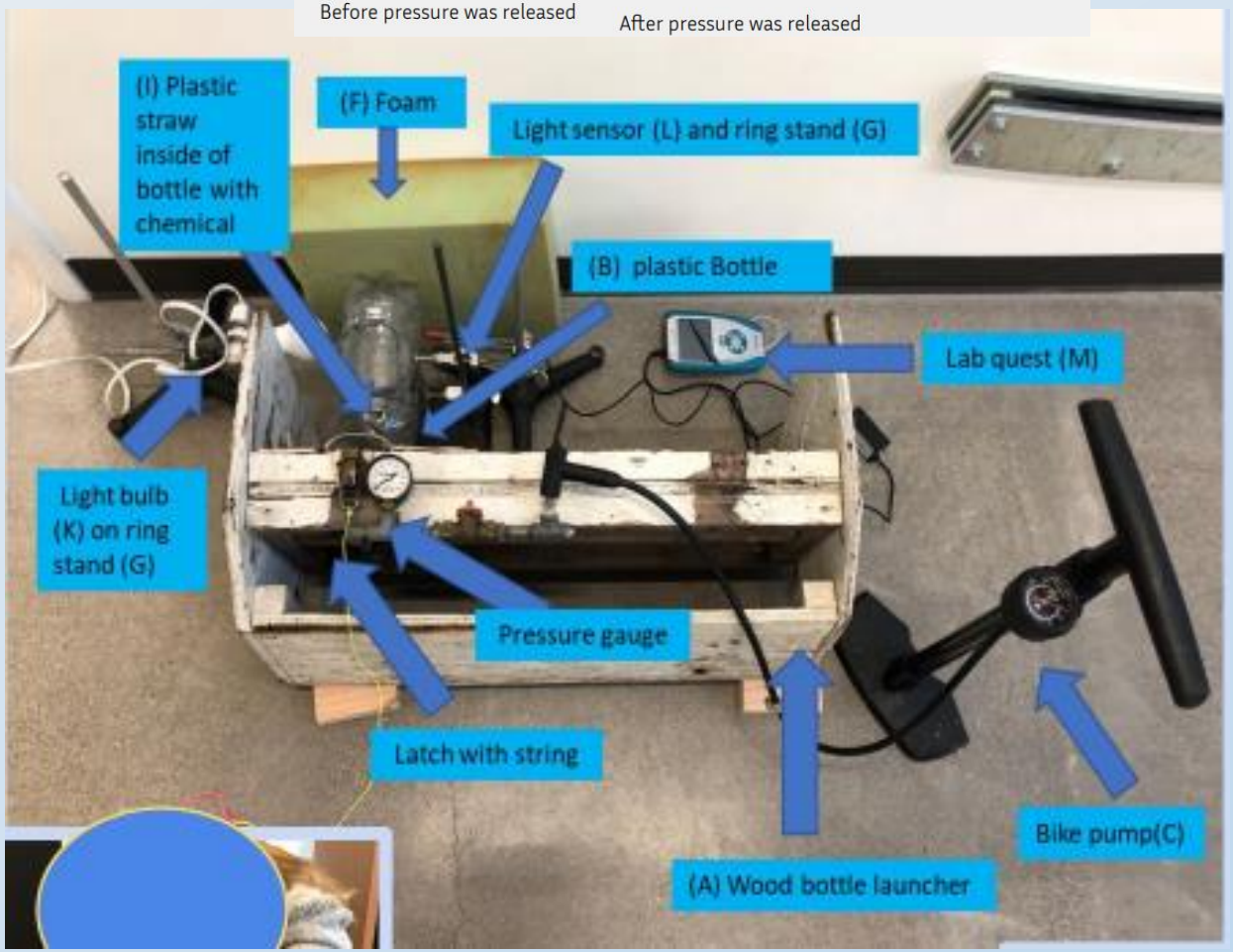
Cleaner Cloud Seeding

“Scientists believe that silver iodide works well as a cloud seeding chemical because it has a wurtzite structure, similar to that of ice crystals that form clouds.



My invention is a new kind of cloud seeding which uses different chemicals similar to silver iodide when it comes to the structure of the molecules…while being nontoxic and not harmful to wildlife like silver iodide is.

To determine how these chemicals affected cloud density, I created a cloud chamber... Clouds formed in this chamber when I quickly depressurized the bottle, and I measured the change in cloud density made by each chemical by monitoring the amount of light passing through the chamber using a light sensor and light bulb.



…I was able to achieve thick clouds inside the bottles for silicon carbide and potassium iodide, the two silver iodide alternatives I chose.”

Erynn Mitchell

Replacing Synthetic Dyes

Runner Up

“Overall, the synthetic dye industry uses vast amounts of water to create its dyes, and it taints even more water in the suspicious (and often unregulated) process of dye disposal.

Currently, harvesting natural dye is costly (in comparison to synthetic dyes). The only way to overcome this cost disparity is through teamwork. A great many industries create natural dye without even knowing it, and they often end up throwing this natural colorant away. For instance, Cassia Tora creates a brown dye as a by-product after being processed into gum. Bark that is stripped off logs and normally thrown away in the process of woodworking can be soaked and used as a red dye… There are almost endless amounts of dye that could be created by the scraps of other industries.

Oftentimes, water soaked in vegetables and flowers offer extra nutrition for growing plants, so the leftover water would serve to create new life for potential dye ingredients.”

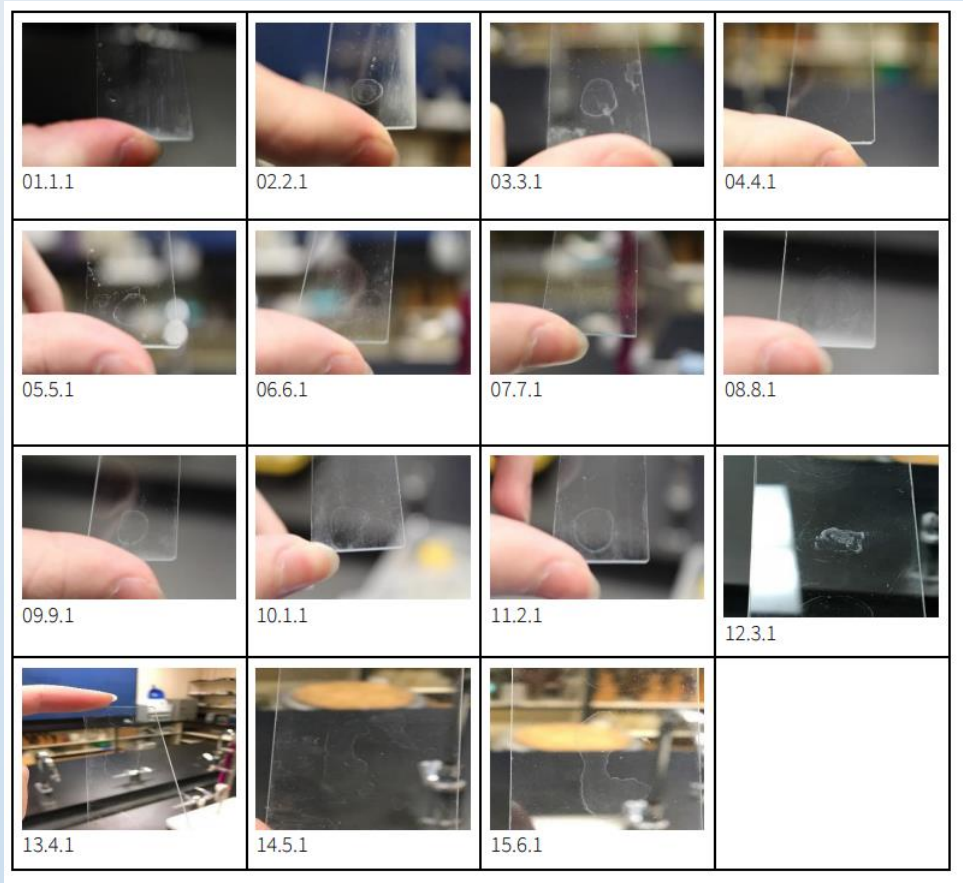
Curran Jacobus & Chase Hayden

Honorable Mention

Development of An Analytical Method for Domestic Water Quality; Tested in Bend

"What our project is in short, is a new method for testing water quality cheaply. And we do this through a set of 3 titrations.

No significant differences in water quality was found in Bend, Oregon. However, some neighboring regions did share some significant differences in water quality, so for extensions we would like to perform this experiment with a much larger sample size and correlate findings against environmental and socioeconomic data…"



Honorable Mention

Breck Jones

Can your lawn be greener?

"I live in a rural neighborhood in southern Deschutes County near the Fall and Deschutes Rivers. Recently, we have had a lot of new homes built and new people moving into the area. Many of the new people have planted grass and water it all the time. All of our water in this area comes from the local aquifer and some neighbors have had to redrill their wells deeper.

This poster will be hung in my neighborhood to help spread awareness on the importance of water preservation."

Thanks to everyone who participated, including our volunteers! Looking forward to next year.

The Inventerprise judges

Lonza