

GREAT SALT LAKE UNIT

Lesson 1 - Identifying the Problem

Watched these two videos as a class.

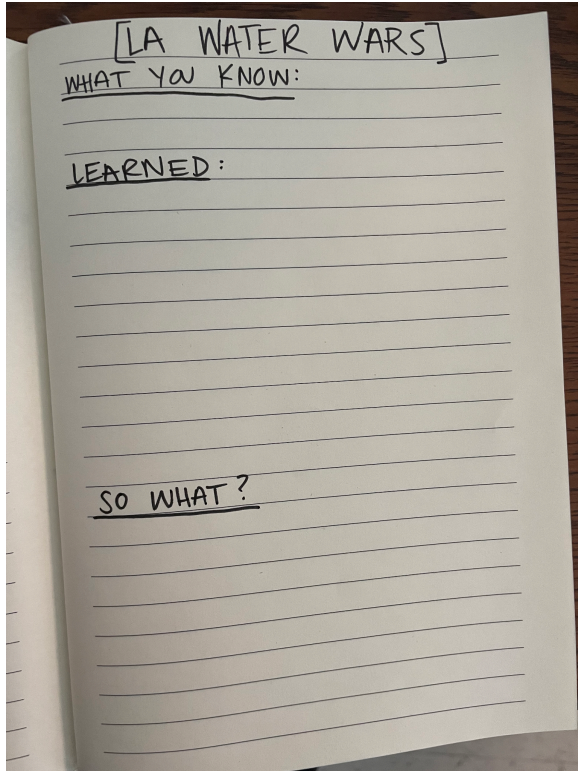
[LINK ONE](#)

Background research on Owen's Lake and Lake Mono.

[LINK TWO](#) (Started around 22 minutes)

Made a concept map of the relationship between Owen's Lake and Los Angeles.

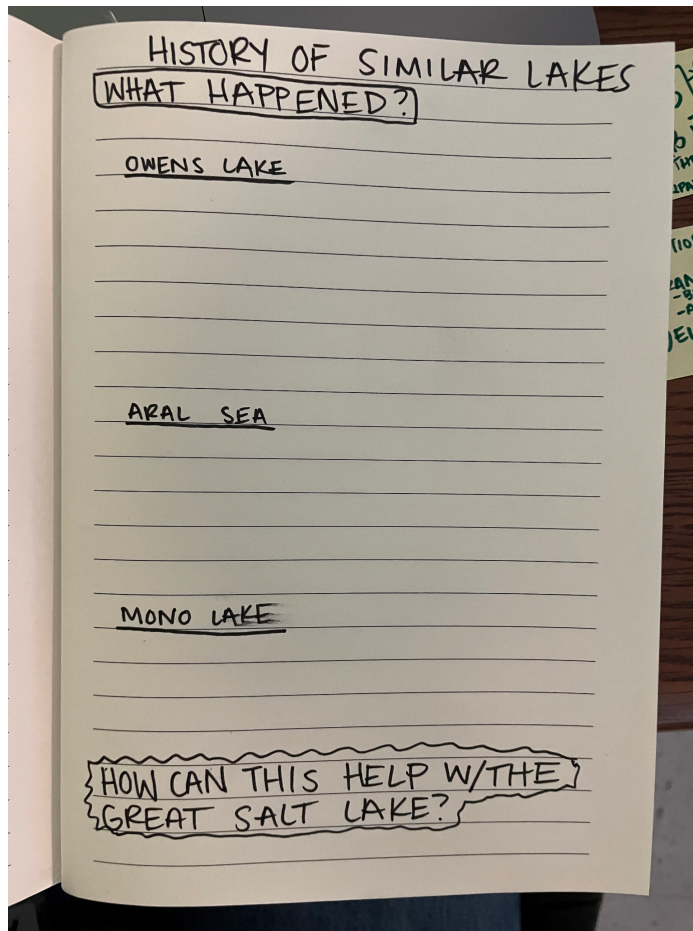
Looked at current problems with Owen's Lake.



LESSON 2: DIVING DEEPER

Instructions to class - "You will have class time to explore different lakes that have experienced similar fates as the Great Salt Lake. You will be researching the different lakes, then compare it to our current problems with the Great Salt Lake. You will submit a picture of your notes."

After students did a bit of background research I had them get into groups and map out similarities and differences for each of the lakes and connect that with our current issues with the great salt lake.



Lesson 3 - Watershed

Supplies - Tinfoil, food coloring, watering can, topographic map of Utah

Step 1 - Have students make a tinfoil mountain and place it in a pie tin.

Step 2 - Walk around and put some food coloring drops on the mountains. Do not tell them what this is, let them guess. Talk about mining a bit and ask them why we mine for stuff. (Most of them were obsessed with Minecraft at some point so they generally get excited to talk about it even if it's a begrudgingly excited). I ask them what happens with the leftover after you get the minerals you want. They say that they trash it. (Or put it on the side of the mountain).

Step 3 - Walk around and start sprinkling water onto the mountains. The food dye starts to go down the mountains. I ask them what the water in the pie tin represents. They eventually come to the conclusion that it represents terminal lakes. They see that the food coloring ends up in the lake.

Step 4 - Leave the pie tins out for a few days. The water evaporates and the food coloring is left. Then students see that when the wind blows, you have toxic metals in the air.

Step 5 - Have students map out the Salt Lake County watershed including where mines have been and/or are currently.

LESSON 4 - Write Legislators

Watched this first [VIDEO](#)

Drew out on the board how bills are actually passed.

Then watched this [VIDEO](#)

Students instructions

This is an update by the scientist we will be working with on the Great Salt Lake. There is a bill that could be passed NOW that would allow more water to go back into the lake. Please write a kind but thoughtful email to send to those on the list. I am happy to help. You can use what we have talked about in class to back up your request.

REQUEST

Great Salt Lake isn't going to be saved by a single piece of legislation. There isn't a silver bullet that will solve a century of water overuse. We need silver buckshot. Just like financial security, water security comes from many small choices to live within our means.

There has been a bill kicking around for a few years called "[WATER EFFICIENT LANDSCAPING REQUIREMENTS](#)"

." This bipartisan and highly vetted bill proposes that the government should lead by example. Now known as HB11, it doesn't mandate anything for the public. It just requires that new and reconstructed government buildings should reduce the amount of nonfunctional turfgrass. Less unused grass means more water for useful things like food, industry, and restoring the lake we all depend on.

We thought that this year would be the year for this commonsense baby step toward water security. HB11 received a lot of support in the house and senate, but HB11 is in uncertain waters. It has been "circled," which means it is being held in place, potentially until the session is over.

Will you help us unstick this helpful bill?

We think the bill is close enough to the edge that a few hundred messages could get it across the finish line. Would you take a few minutes to send a text or email to one or more of the senators on this [list?](#)

Please be constructive, kind, and clear. A simple, “Will you please vote for HB11?” can go a long way.

How do you save an inland sea? One acre-foot at a time.

Template Letter:

Dear Senator (or Representative) [last name]: As your constituent, I write to urge your support for passage of [bill number], a bill introduced by Representative [member’s name], which would [describe what the bill would do and why]. Please advise me of the actions you intend to take with respect to this bill.

LESSON 5 - Save the Great Salt Lake Project

We have the Utah State Legislature coming into our school next week. We have been talking about the issues with the drying up of the Great Salt Lake in class. There is not enough pressure to make a change. Data shows that educating people is the quickest way to make a change. Your job with your group is to

1. Pick one of the sections to focus on from [this website](#)
2. Read and summarize the main points on a whiteboard as a group. (Check it off with the teacher)
3. Draw out a concept map on a paper and get it checked off with a teacher.
 - What will your attention grabber be?
 - 4 lines of evidence/reasoning(1 of them NEEDS to be historical)
 - One summary statement connecting the 4 lines of reasoning to the impact statement
 - How will you make it visually pleasing?

4. Actually make the infographic on Canva.(Actual Student Examples)

(Actual Student Examples)



No Longer the Greatest Snow on Earth



a smaller lake could also mean earlier snowmelt and affect how long ski resorts can stay open.

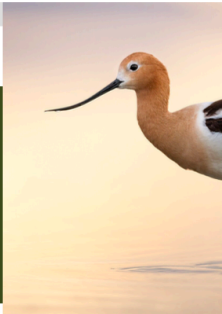
Our city name is literally called Salt Lake City. Without the Great Salt Lake the name wouldn't make sense

If the lake dries up the toxins in the air would make it so people have health issues

The increased dust will land on the snow and cause it to melt earlier

Before it's too late

WILDLIFE AND THE EFFECT
BECAUSE OF THE LOSS OF HABITAT MANY SPECIES ARE IN DANGER



STOP DIVERTING LAKE

CONSERVATING WATER FLOW SUSTAINS THE LAKE'S ECOSYSTEM, BENEFITING BOTH WILDLIFE AND THE OVERALL ENVIRONMENT.



ARAL SEA VS COTTON

COTTON FARMING CAUSED THE ARAL SEA TO SHRINK BECAUSE WATER WAS TAKEN FOR IRRIGATION. THE SEA IS ALMOST COMPLETELY GONE..

ACTION NEEDED NOW

IF WE HAVE AN EMERGENCY PLAN TO RETURN WATER TO THE GREAT SALT LAKE IT CAN HELP THE WATER MAINTAIN A HEALTHY DEPTH

What we need more than

WATER

Nicholas D Porter

Data from the already dropped water levels of the Great Salt Lake.

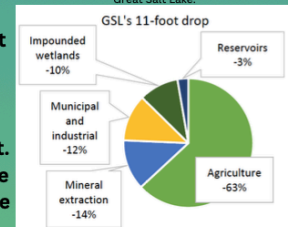
Water is a very important factor in the Great Salt Lake, And we as a state, should do everything in our power to protect that. However, Water is not the only reason to protect the Great Salt Lake.

A closer view at the toxic dust at the bottom of the Great Salt Lake



Due to the chemicals that have emerged in the Great Salt Lake over time, such as arsenic, copper and mercury, If the water were to drain, We would be exposed to critical levels of poison, which could potentially change or destroy the lives of millions.

We absolutely cannot let that happen.



Assuming the Great Salt Lake drains, Agriculture would take an immediate impact, Not to mention human lives.

Our primary water source would cease, which would cause us to find an alternative source. Local animals would not have water, or food, due to the crops not having water either.

This would cause devastating effects to the economy, And has the potential of destroying the entire state.

MIGRATORY BIRD ACTIVITY

Used this [presentation](#) and allowed students to pick a bird that they hoped to see at the Migratory bird refuge.