

PEI FieldDesign Lesson and Evidence of Learning

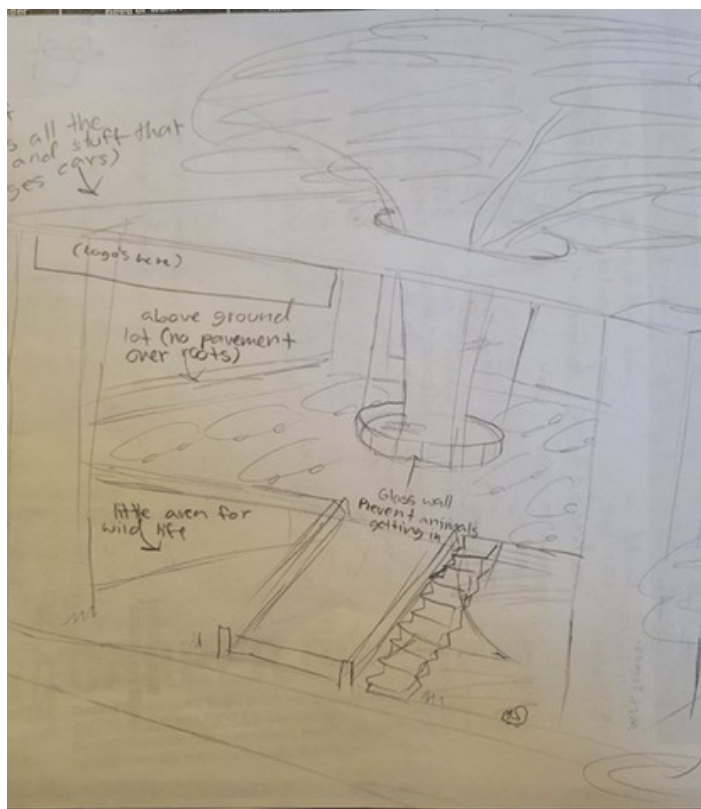
by Tony Harris
7th Grade Science and
CTE Teacher
Tumwater Middle School

This activity followed (somewhat overlapped) our unit on the carbon cycle. We tied a FieldSTEM activity into the end of our carbon cycle unit.

During the unit, I used the MyTree site and had students each “adopt” a tree and determine its value in sequestering carbon. As part of that activity, we talked about the general opinions of urban forests. We are blessed in that we have a small forest on part of our school property that we could go to.

After the unit, I used the Decisions, Decisions lesson from Discover Your Urban Forest booklet.

1. They ranked how much they agreed with each of the statements. We used their science notebooks to avoid using as much paper.



Stakeholder proposal.

2. They then moved to the part of the class that corresponded to their numbers so they could see what others thought. I allowed for a little discussion/debate.

3. Students were presented with the Heritage Oak scenario. They determined the stakeholders' views and then tried to create a proposal that would be fair.

4. Next we discussed actual local scenarios that proposals were made on (Walmart in Tumwater including a heritage oak, Capitol Lake/Estuary)

5. We discussed how ecologist recommendations sometimes influence local policy.

6. Students examined their local neighborhoods and streets to see what type of tree policy, if any, seemed to be in effect.

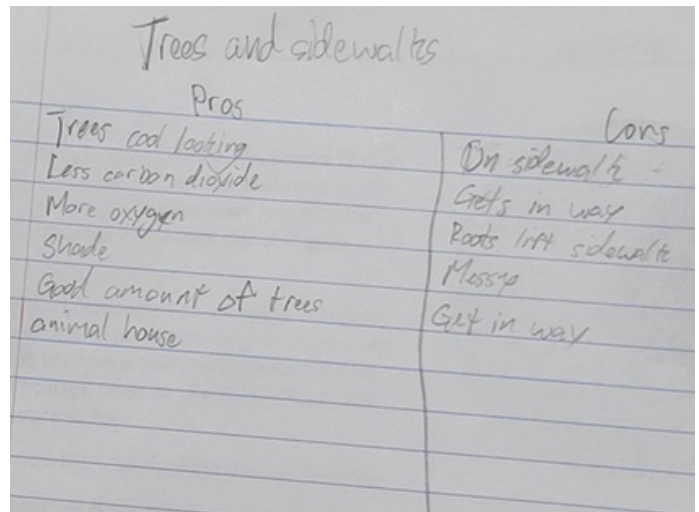
7. We went out to the street adjacent to our school. When the city redid it about a decade ago, they planted trees and grass within the median. There were already trees on the sidewalk on the school side of the street and not on the other.

8. Students made a pros and cons list for having trees near the street.

9. Even though there were some major issues, students mostly decided they thought the trees were a good idea.

10. We then visited the Tumwater City webpage and examined the municipal code. They found out there are trees that aren't allowed to be planted at all (willows, poplars, cottonwood) and others that aren't allowed to be planted along public roads. We talked about why that was and whether students would make any changes. We also looked at the city's plans for new development. Students liked most of the decisions but also knew it would raise prices or taxes.

11. Just to show how small recommendations can lead to major issues, I showed the video [How Humans Caused Our Own Allergies - Cheddar Explains](#).



Trees and sidewalks	
Pros	Cons
Trees cool looking	On sidewalk
Less carbon dioxide	Gets in way
More oxygen	Roots lift sidewalk
Shade	Messy
Good amount of trees	Get in way
animal house	

Students listed 'pros and cons' of having trees near a city street.