

Stan Feighny
STEM Leadership Seminar SCED 545
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([Link](#) to open proposal in Google Docs)

Thank you so much for getting back to me so quickly on the proposal. You are kind to give me this opportunity.

The choice of publishing platform needs a better explanation. The plan is not to write a lesson plan for my classroom or even the district, but to write a lesson plan that meets the publishing standards for a well regarded national resource used by teachers everywhere. There are three reasons I would like to write a “published lesson plan” instead of an article.

The Technical Reason

Teachers consider resource websites like the University of Colorado’s [TeachEngineering](#) or the North American Association for Environmental Education [NAAEE eePRO](#) as preferred alternatives over the journals because they can use the lessons directly. Also, adding videos, hyperlinks, and other web resources makes this a rich and useful source. I read *The Physics Teacher* for years and enjoyed the articles mostly for the background and novel ideas. I used the journal to inspire my own lessons, but rarely did I use something directly. I believe my effort to produce a publishable product for this type of resource will connect me with my target audience better than a classic journal.

The Learning Reason

The lesson databases identified above have clear protocols for writing, submitting, and accepting work product. If I become a science or engineering coordinator, knowing these protocols will help build departmental resources that provide value to the teachers. I think I could use this knowledge more than how to get published. I am at a different point in my career.

The Personal Reason

The learning outcome of this lesson is to help students move from climate knowledge to climate action. Petroleum-based fuels take 10 to 180 million years of geologic time to create, yet, we burn them in 20 minutes*, and the resulting CO₂ stays in the atmosphere for 300 years. Combustion converts 1 gallon of gasoline to 174 cubic feet of CO₂.

The US consumed 390.98 million gallons of gasoline each day in 2019. Each gallon produced 174 cubic feet of CO₂ that will be in the atmosphere for 300 years. I have not found a lesson that explores the scale of the problem. I hope my effort can help teachers build knowledge to support climate action.

The idea for this lesson comes from the ClimateKids.NASA.gov website: [A gallon of gas = 20 pounds of CO2!](#) This website identifies the phenomena but does not have a matching activity to engage the students. Nor does it show the volume of 20 pounds of CO₂ is in the atmosphere. With the help of Elizabeth Joyner at [MyNasaData](#), I am exploring how to put the lesson plan in NASA format so their scientists can review it and make it a NASA asset.

I hope you will consider my request. If you would like to meet over ZOOM and further explore the published lesson plan’s benefits, please let me know the best time, and I will set it up.

Sincerely,
Stan Feighny

* Driving 20 miles a car that makes 20 miles per gallon at 60 miles per hour burns one gallon.