Danielle Jackson Spring 2023

Assignment 3: Proposal Submission

Title: Space to Seas – Authentic ways to hook students and use data in science classrooms

I am choosing Option 1 and developing a professional development workshop. I chose this option because I am part of STANYS and am very comfortable with participating in and running workshops and see this as a great topic to offer other teachers as we all struggle to keep students engaged these days,

I think my initial audience will be MS/HS teachers, but I am open to expanding to Elementary as well as I think there is something here for everyone. For the upper levels it can be helpful as phenomena for hooks and topics for students to explore to learn to argue from evidence and investigate the application of constant changes in technology. For younger grades, I can see these resources as a way to try interdisciplinary learning, integrating math and reading with the science! True STEM is really achievable in the earlier grades to some degree.

I am not sure I can answer the question about grades subjects and amount of students at this time, because I do not have a specific audience in place. I do not think this will be within my district, I think it will be a PD I offer through a regional STANYS network.

I learned so much about how diverse the NASA work and projects really are, and I truly see how you can not teach using NASA resources without it being STEM and not just science. There is data and numbers involved in almost every aspect, even the really awesome “pictures” because of how they are generated from satellites and the tools that are used to gather information. Then there is the science behind how they build the machines, the parts of the earth and space they study. The engineering connections can be obvious or subtle, but they are foundational throughout all the work NASA does and I think that gives students a connection to the purpose.

I hope that by providing a session for other science teachers with resources that are classroom ready or organized so they can explore themselves, they will see how beneficial it will be to try to use one or more in their classrooms. Maybe they will be inspired to share with someone in their building or district and if I get lucky they will request future PLC groups to continue finding ways to build lessons around important science topics that NASA is involved in around us everyday.