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Curriculum Units by Fellows of the National Initiative
2021 Volume V: Human Centered Design of Biotechnology

Math by Design; Creating Innovators in a Post-Pandemic Classroom

Guide for Curriculum Unit 21.05.04, published September 2021
by Christianna C. Loza

Data can illustrate a deeper story; however, making sense of data through analysis requires data literacy. Analyzing information to make health decisions is a high-level task with added pressure when the decision could potentially harm the health of oneself and our community. Numeracy for analyzing data is becoming increasingly important. The ability to discern the misinformation that quickly spreads could be life-saving measures and imperative literacy skills to include in k12 education. This unit will serve as a student-centered classroom approach to building awareness of public health, biotechnology, and data literacy while modeling the design thinking process to show students the value of their ideas for solving solutions in our communities and beyond. Students will use math to tell a story across our history of how public health has changed the globe, what technologies drove that advancement, and what factors might be holding communities back. Students will empathize with this information and start to prototype their ideas while also emphasizing that all good ideas are generated through slow hunches, inter-disciplines, and collaborative efforts.

(Developed for Mathematics, grade 7; recommended for Mathematics, grade 7)