



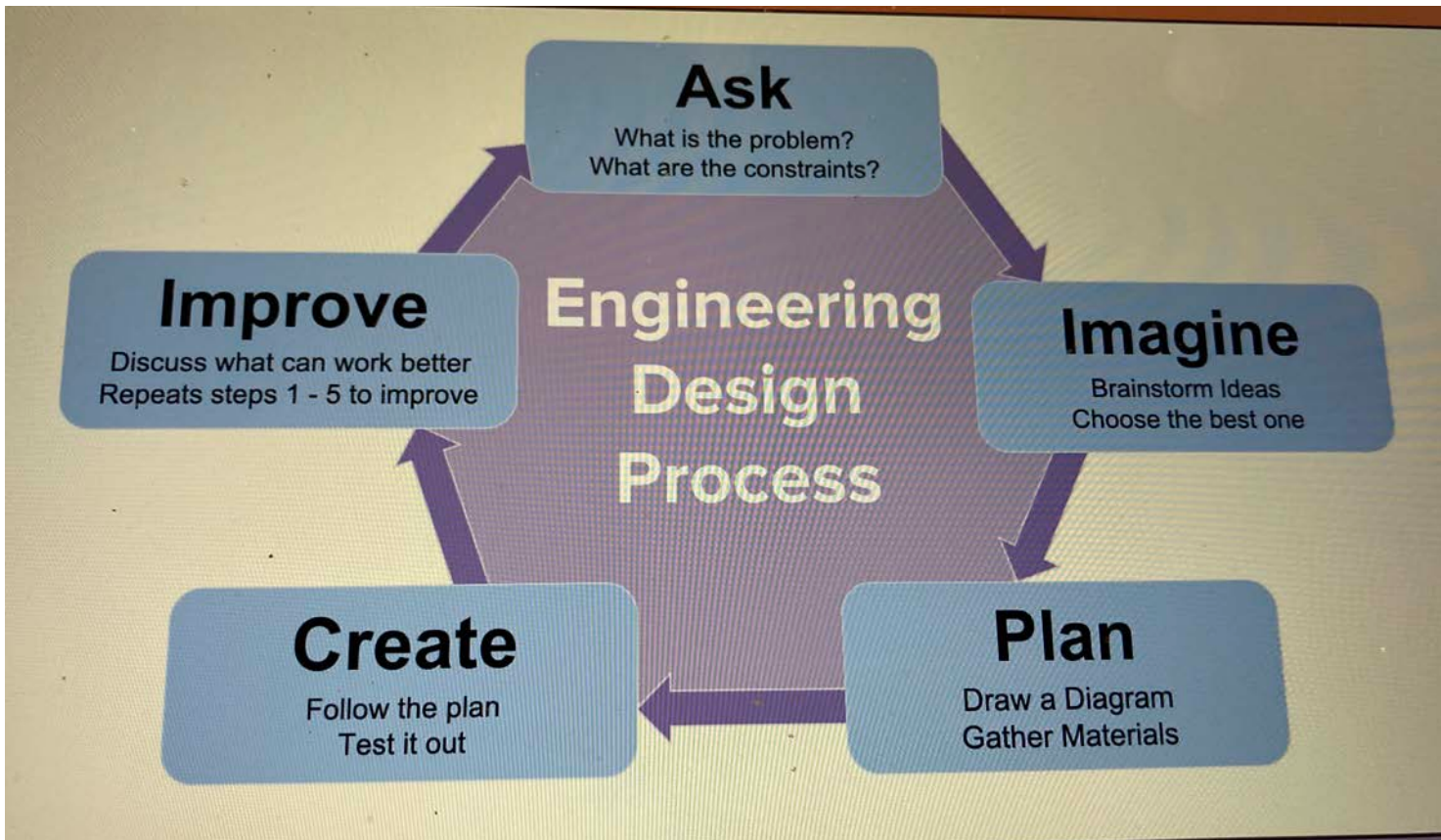
YONKERS
PUBLIC SCHOOLS

Introduction to the Inquiry-Based Learning Series for Teachers

The Smart Start Grant for Yonkers Public Schools is funded by the New York State Department of Education. It is a 5-year grant and began in the 2021-2022 academic year. Year 1 overview.

Dawn Bartz, Yonkers Public Schools Smart Start Grant Manager

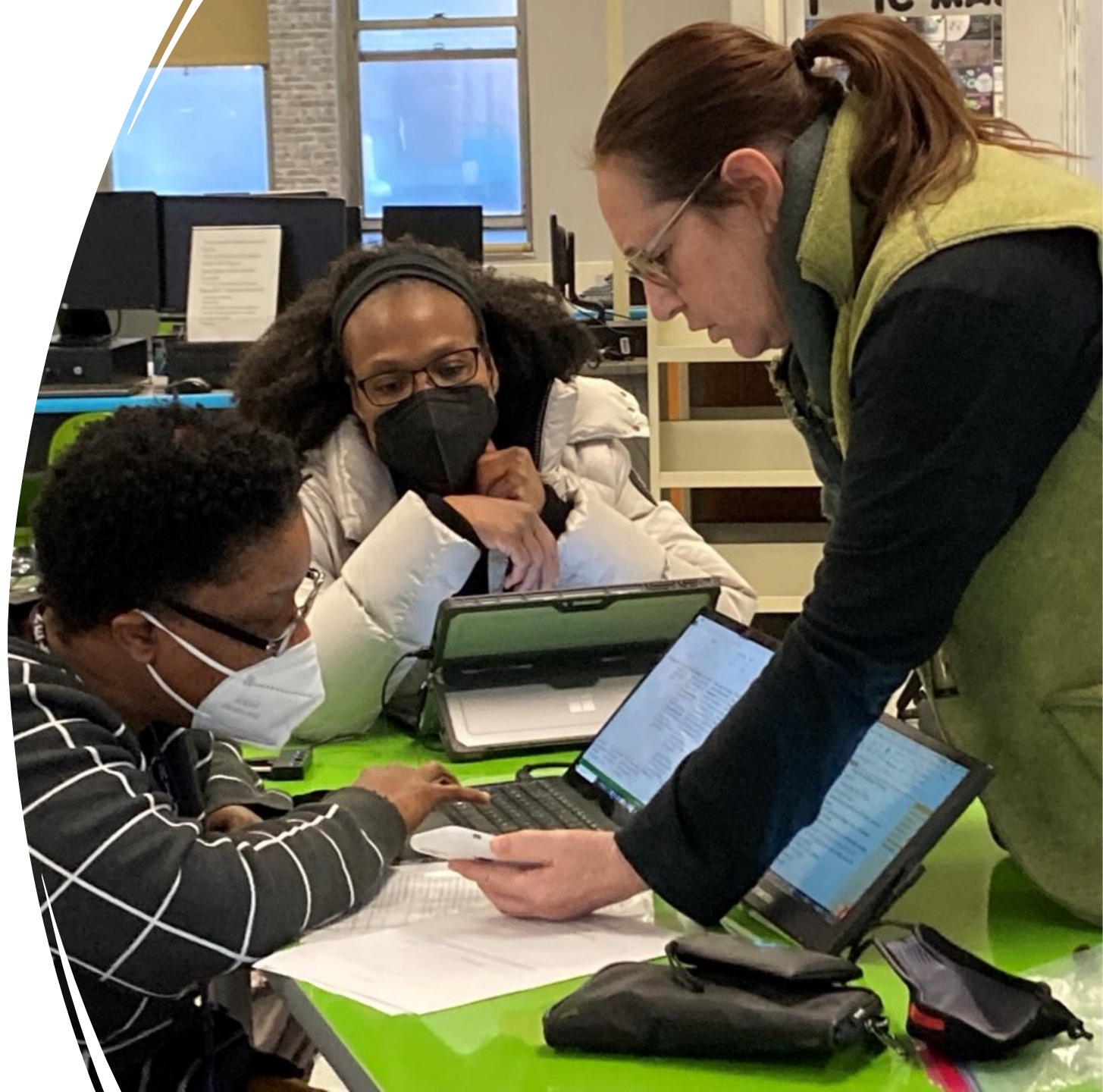
The Engineering Design Process



- The curriculum units include the New York State Education Department Computer Science and STEM standards, as well as the academic content areas of ELA, Math, Science, and Social Studies.
- Project-based learning (PBL) is the form of inquiry-based learning that is used within the framework of Wiggins' and McTighe's Understanding by Design (UbD) framework.
- Professional Learning is provided by facilitators at Teachers College, Columbia University's Center for Technology and School Change (CTSC).

CTSC Professional Development

Karen (K2) Kirsch Page is the associate director for professional development at CTSC. In addition to her experience as a K-8 technology and STEM teacher, K2 has provided instructional support to K-12 teachers in the US and Africa where she co-founded a free annual education technology conference for underserved teachers now going into its 8th year. Karen is passionate about helping schools and organizations around the world create a culture receptive to implementing technology for creative teaching and learning. She has worked with schools to design and launch coding, robotics, makerspace and visual design programs.

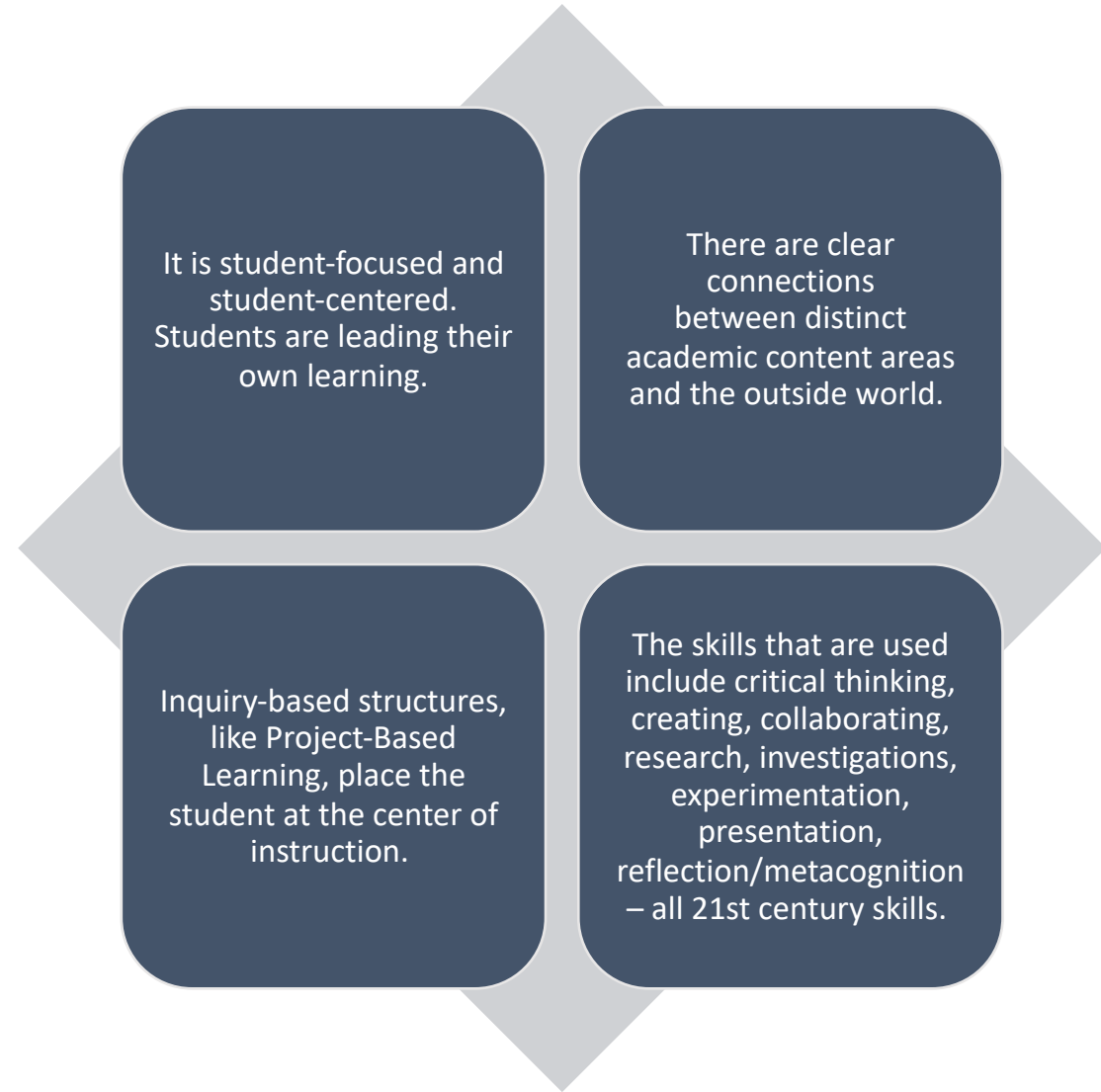


CTSC Professional Development Staff

Jackie Pilati is a professional development associate at CTSC. She brings 11 years of teaching experience in both general education and special education classrooms in NYC and Sonoma, Mexico. Jackie is an urban agriculturalist working on seed sovereignty and plant breeding projects to build climate and community resilience. She is passionate about working at the intersection of science, education, technology, food justice, and culture.



Why inquiry-based learning?



Inquiry based learning is *active* learning

- Inquiries are launched through a question or problem that is similar to those people face in the outside world. These do not have simple solutions, nor is there a single solution or answer. Through the inquiry process, students arrive at solutions that are presented to a larger audience.
- Instead of teachers covering content in classes, students uncover content. The results include longer lasting retention and lead to deeper and more meaningful learning.





Technology is being infused into the newly created district Innovation Center for teacher professional development and class exploration.



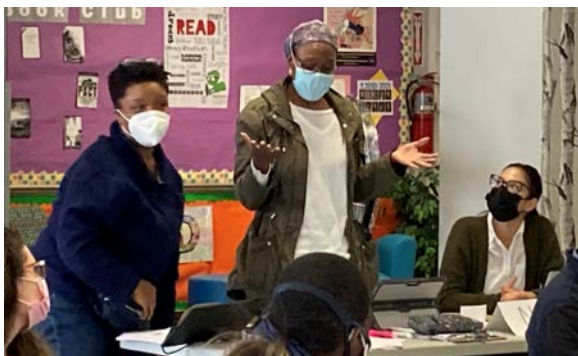
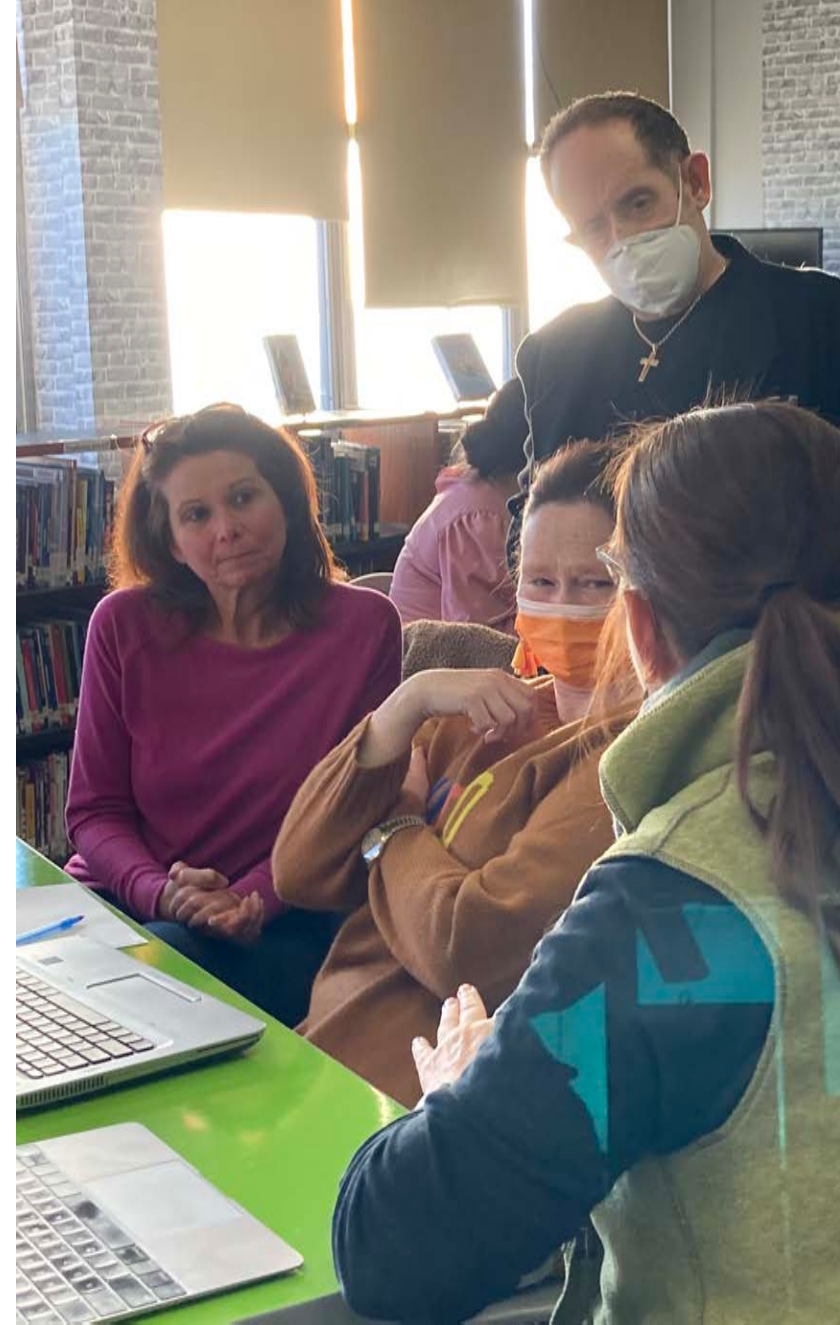
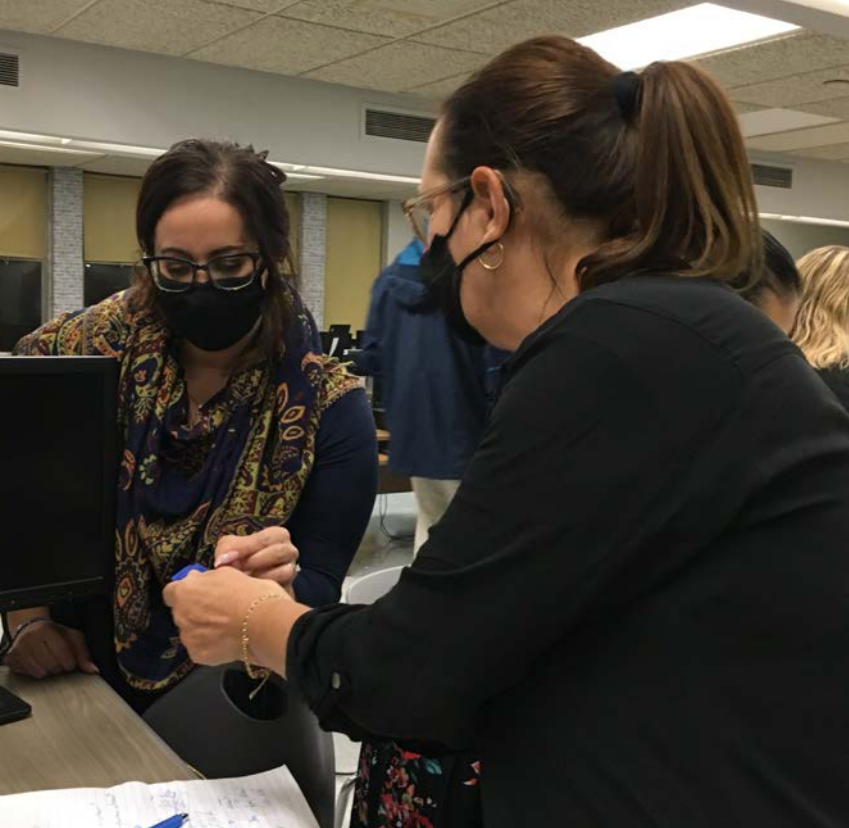
What is Transdisciplinary Design?

- In this learning series, transdisciplinary learning is interdisciplinary learning + the integration of technology into the process.
- In transdisciplinary design, learning experiences are created that put complex problems and real-world contexts at the heart of learning. Transdisciplinary design transcends traditional boundaries of disciplinary subjects as students uncover knowledge, apply concepts, and build skills using multiple disciplines to solve meaningful problems.



How do we create these
inquiry-based units?

- Teachers design their lessons in teams. These teams may be interdisciplinary to assure there are cross-cutting connections between academic content areas. Interdisciplinary instruction allows students to see the relevance and interconnections between their classes as well as between academics and the outside world.
- The Understanding by Design method of unit development (Wiggins & McTighe) is used.
- The units are launched with an Essential Question (EQ) that is posed in class. By the end of the unit, students have been able to provide a well thought out response to the EQ that is then shared with the larger community.





Inquiry design engages both students *and* teachers