

Pedagogical Approach To Our Values

Adapted from ISTE

Beyond Tech Ed desires to approach computer science curriculum with the whole child in mind. Understanding that students come from various backgrounds, cultures and experiences is key in order to develop a rich, character building, computational thinking, and collaborative working curriculum.

Role of the Teacher

We design our curriculum with the idea that the instructor will act as the guide on the side instead of the sage on the stage. As the lead learner, the teacher's role shifts from being the source of knowledge to being a leader in seeking knowledge. The lead learner's mantra is: *"I wonder how to do..."* "I may not know the answer, but I know that together we can figure it out." We use the 5E model of learning - Engage, explore, explain, extend, and evaluate.

BTE's curriculum opens each class with a collaborative discussion. The goal for any CS project is to engage curiosity. We want the class opening to expose the concept to students, allowing them to shape meaning from what they will experience. We end each class with a recap to connect the project to a real life application. Finally, we include an abundance of materials and teaching strategies in our curricula - sometimes too many to use during one school year - with the expectation that teachers have the professional expertise to determine how to best conduct an engaging and relevant class for their students that meets the BTE standards.

The Classroom Community

We value an inclusive classroom community. Everyone's ideas matter. Modeling active listening skills and teaching active listening skills are part of what we do. Off of the computer, students will **collaborate and communicate** during discussions, and creative tasks. When programming on the computers, students are encouraged to share ideas or work collaboratively as pair programmers. When done with a graphic design or word processing project they use peer editors to give feedback and support. *The design thinking process takes the whole class to collaborate and solve problems with the end user in mind.*

Discovery and Inquiry

Students have an active and equal stake in their learning experience. Students explore concepts and build their understanding through various physical and online activities. **The goal is to develop a common foundation upon which all students in the class can understand computer science and digital literacy concepts, graphic design, digital literacy, and digital citizenship, regardless of their prior experience.**

Materials and Tools

Our materials are **designed to support exploration and discovery** by those without computer knowledge at any grade. As well as challenge those who have had years of experience with devices.

Creation and Personal Expression

Many of the projects in our curriculum ask students to be creative, express themselves, and share their creations with others. **Collaboration, computational thinking, and design thinking are at the core of**

our creative projects. Our belief is that students intrinsically want to succeed and do well. Their own personality will come out in formatting a document, solving problems in design and coding, or expressing themselves during discussion time. Our teachers allow for diverse thoughts, ideas and cultures to be brought into the creative process.

Yet, with personal expression also comes the need for **digital safety**. We instruct our students and staff in the best internet safety practices. After assuring safety, we guide students in the digital world on how they can **become an active healthy contributor as a digital citizen**.