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I want to talk for just a minute about our approach to STEAM education and the importance of art integration.

We work with a lot of students that we want to enthuse about science, art, and about their own education in general, with the hope that they will continue past high school to pursue their own interests through further study. Many of the kids we work with have disengaged with school for one reason or another, so one of the things Bill and I asked ourselves is how do you get them excited and motivated about learning. Through this we quickly realized that arts integration is not about making science, or any subject, more palatable, it's really about taking a look at how we learn and the means by which we can assess learning.

For us, we do this through three basic types of projects and activities.

We have projects like these pipe cleaner neurons that are direct and interpretive representations of physical structures or processes. These allow students to embellish the basic physical facts of these structures, aiding in remembering what

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these various components are, and also allowing us as teachers to easily differentiate these lessons, and you can see here a wide range of cells all in varying degrees of complexity.

We also have projects that serve as visual and tactile examples of complex biological processes such as these blind touch sculptures that are very direct examples of how our tactile system gathers and interprets information. These projects can allow students numerous ways to understand these concepts.

Last we have projects that allow students to explore concepts in a way that can be assessed for understanding while accommodating a wide range of solutions. These neuron “metaphors” still require an understanding of the basic function of a neuron, but allow students to approach them in a way that can be personally relevant.

Thank you for this opportunity!