



CAPITOL
HILL
DAY
SCHOOL

Gray Matters (October 2016)
Welcome to Back to School Night!

Good evening! I am Jason Gray and I am proud to serve as head of Capitol Hill Day School. This school is an ongoing gift, and as I start my 20th year at Capitol Hill Day School, I feel honored to be a part of our community. The year is off to a fabulous start.

Imagine you walk into 7th grade science during the first week of school and Ms. Esser, your teacher, hands you a stack of pictures: a dog, a rock, a plastic bottle, a desk with chairs, a piece of pizza, a tea kettle, a leafy plant, and a lightning bolt, and she asks you to work in a small group to sort the images. You may decide to arrange them as a set of Natural or Processed goods or as Edible and Not Edible materials. There are many possibilities and certainly no clear right or wrong answers.

As educators we want all students to know that deep conceptual learning comes through the understanding that knowledge is a dynamic, coherent, interconnected set of ideas, not a set of isolated and memorized facts or skills. As such, we believe that curricula should be designed to teach the most fundamental, underlying structure of subjects, the powerful ideas that weave through all areas of learning.

This opening 7th grade science exercise, an introduction to taxonomy, is one example of a powerful idea: the concept of sorting or patterning. As 8th graders, these same science students will examine the patterns in elements and will work, through a sorting exercise, to develop an organizational structure similar to Mendeleev's periodic table. In early childhood they may have done what EC West students did recently, and spent time at the start of the year determining ways to sort the objects in their dramatic play area; or in 4th grade, where they examined all of the possible ways their desks could be arranged as arrays in their classroom (a sophisticated math task when you push to understand how you know you have all the possibilities and examine the associated patterns). There are many other examples of how the concept of sorting spirals through grades including classes exploring types of literature, poetic form, and the patterns in spelling and vocabulary.

The outcome is that children learn, through this type of process and the study of powerful ideas, to ask questions, organize thinking, value collaboration, struggle with ambiguity, reason critically, take risks and see mistakes as an essential tool to growth and development. And we believe it makes learning challenging, creative, and fun, too!

Jason Gray