

The McMicken Heights Tapestry  
Artist: Cecilia Blomberg  
Medium: Hand-woven tapestry  
Materials: cotton warp, wool and linen weft  
Size: 5 ft high x 8 ft wide  
Year completed and installed: 2012

This tapestry was commissioned by Washington State Arts Commission in partnership with Highline School District for McMicken Heights Elementary School in Seatac and is part of the State Art Collection. I have been working on this project for a year and I spent the time between January and July 2012 actually weaving it.

At first glance you may wonder what you are looking at and how it is done so I will try to tell you a bit about this tapestry and how it is made.

First, what is tapestry? It is an ancient art form where a weaver weaves a picture in a loom, using warp, vertical strings, and weft, the yarn she inserts over and under each warp thread, using different colored yarns for each detail. It is a very slow building of a picture and cloth at the same time.

The design for a tapestry can be anything at all, a photo, a sketch or a painting. In this case, I worked with all of that and ended up with a watercolor painting that was approved by the selection committee to be woven by me. The design started with a conversation with the committee members as I was interested in knowing what they had thought about as subject matters in the tapestry. Math, they said. And Diversity, we have 72 different languages spoken here. These were the first ingredients in this stew of ideas that would become the tapestry.

Next, I started sketching and playing around with ideas, collecting any information that I might use, took pictures around the school and Seatac. And I thought and sketched some more. And I thought, how do I make Math visual? Luckily I found a great book that did just that, so that gave me some ideas. Just about that time there was a lot of talk about a Nebula around Saturn so I came up with the idea of having the math objects swirl around in a nebula-like swirl.

And Diversity? This school is quite unusual and very special as you have so many children from so many different parts of the world and it was very important to convey that in the tapestry. What is also so special and wonderful about that is the friendships that will form among you and let you realize how similar we all are, no matter where we come from. You also learn about different cultures and traditions, food and customs, which makes it easier to understand the world and accept each other. I wish all children would have your opportunities!

The children in the tapestry are sitting around a table and maybe you can imagine yourself at this table which is also the world. Some of them are reading, some doing creative things such as painting and drawing, maybe writing poetry.

There is a large apple tree behind the children. This tree can represent the Tree of Knowledge which reaches out with its many branches and is full of tasty bits, just like learning new things. Different paths will take you in different directions, showing that you have lots of options ahead of you. The landscape in the tapestry includes some familiar things such as Mt. Rainier with its Lenticular cloud, a ferry and a sailboat in the Puget Sound, the Olympic Mountains, orchards and forests. There are more things to discover the more you look.

Now, back to the Nebula and the Math objects. We know that math is everywhere and I have just included a few items here. Besides math, I also wanted to include some other things that may be related or important, but not nearly everything out there! I think it is important to include the arts and the connection to the sciences. After all, they used to be thought of as a whole and artists and scientists were often one and the same. Think of Leonardo da Vinci! Art and science both involve and demand creativity and are both about finding solutions to ideas or problems. And to some of us, it is easier if we can visualize something rather than just deal with theories.

Before I tell you about the list of math objects I want to explain the yellow lines and the cryptic

symbol at the bottom of the tapestry. The symbol is one that stands for the Golden Ratio or Golden Mean which is based on the relationship between a square, a circle and a rectangle. If you follow the yellow lines you can discover those shapes which go all the way back to the Pythagoreans. The Golden Ratio has been used since then as a guide to provide a harmonic proportion in architecture and pictorial compositions. It also reflects the diatonic scale of musical harmony. It can be written out as :  $(a + b) / b = b/a = 1.61803...$  I thought it would be fitting to have a Golden Rectangle, a harmonious format for the tapestry and letting the path and contrail of the Boeing 777 show the part of the circle forming the rectangle.

Other mathematical ingredients are Pi, (look for another pie, too), Logarithmic Spirals as in the Nautilus shell, the Sunflower and the Pine Cone. There is an Equilateral Triangle, a Möbius Strip (try making your own!), the Atom, a Violin with a Bow, a Rubik's Cube, Chaitin's Omega and the Fibonacci Sequence as seen in the Sunflower, the sequence being 0,1,1 2,3,5,8,13..etc with each number totaling the sum of the two previous numbers.

Then there's the DNA Double Helix, two different kinds of Compasses, Calipers, the symbol for Infinity and Fruits and Vegetables representing your community garden and our very important agriculture. The Peace Dove reminds us of the importance of world peace and at the top you can find the painter's Palette and a ball for fun as well.

In other parts of the tapestry you can look for the Rainbow Spectrum, the Three Tailed Tiger Swallowtail Butterfly and the Indian Leaf Butterfly which disguises itself as a leaf when it folds up its wings. There's a Dog named Shadow in there and a Boy named Jonas, a Skateboard and Geese flying in Formation.

To weave a tapestry takes a long time which gives me lots of time to think. So I have been thinking a lot about your school and you. My hope is that this tapestry will be inspiring and will remind you that the world is full of beauty and wonderful people, interesting opportunities and so many new things to learn, always.