The kindergarten began the month of February with an in depth exploration into the world of textiles. Textiles surround us from the moment of birth to the day that we die. Throughout history, textiles have been worn, lived in, walked on and slept under. Textiles help decorate our homes and adorn our bodies. Clothing allows us to create our own identities and plays an important role in cultural rituals and celebrations. Every culture in the world makes use of textiles.

The word textiles originally meant woven fabric. Today it means any material that is manufactured from fibers or yarns. The techniques of producing textiles involve felting (which is compressing and rubbing fibers together to create a mat), spinning (which is drawing fibers out and winding them together to create yarn or string), and weaving (which is interlocking fibers to form a mesh).

Our first week of activities focused on understanding what a textile is and identifying textiles in our classroom. We used fabric swatches combined with other loose parts to create designs. We used colorful scraps to create a textile mobile by learning to tie a simple knot and adding a pattern of beads. We explored a variety of textiles by sorting fabric swatches by color and texture. We used a variety of textures and shapes of textiles to create our monthly self portraits.
TEXTILES: HOW THEY ARE MADE

There are many different ways of producing a textile from the simple fibers.

Insects: Silk is produced from a silkworm. The worm builds a cocoon of mucous around itself. These cocoons are boiled and the silk is spun into threads.

Plants: Cotton is made from the feathery fibers found in the seed heads of a plant. The fibers are spun together to make a thread, which in turn is woven into cloth. Bamboo, flax and hemp are also used to make fibers.

Animals: Wool comes mainly from sheep. The sheep are sheared and their soft fleece is spun into thread for knitting and weaving, or pressed together to make felt. Wool can also come from goats, llamas, rabbits, alpacas and camels.

Man Made: Most synthetic fabrics, like nylon and polyester, are made from petrochemicals. The chemicals are extracted from crude oil. The thread is spun from a type of liquid plastic.

Bev Patrick, the grandmother of a Red Room friend, brought her spinning wheel and demonstrated how wool is spun into thread. Bev lent us her loom and the children were invited to weave the thread into a decorative wall hanging. Thanks to Jen Moak for supervising the loom weaving.

We extended what we had learned by dyeing strips of cotton fabric, weaving the strips together and making our own decorative wall hangings.

The children also used the sewing machine to sew pieces of fabric to create a fabric collage. Large pieces of fabric were arranged onto a background. First initials were added for individuality. The children used a sewing machine to fasten the fabric pieces onto the background.
TEXTILES IN OUR EVERYDAY LIFE

Once we learned what a textile is and were able to identify them in our environment, we began to notice them everywhere! The children’s focus immediately went to their clothing. Textiles are such an integral part of our life.

We began our second week practicing the basic skills of buttoning, zipping, snapping, buckling and tying the textiles that we wear each day. We were so proud of ourselves when we all learned how to zip our winter jackets!

We extended our sewing skills by learning how to sew a simple stitch to create a small heart pillow.

Miss Tillinghast led the children in a project to create a variety of headbands. The children braided strips of fabric, used the sewing machine to secure the band and then hand sewed a bow or flower onto the band.

The children became very confident in their sewing abilities. By the third week of our unit, they all were able to use the sewing machine independently to make a bean bag!

We continued the discussion about textiles in our environment by brainstorming other places where we find textiles. We realized that textiles are found EVERYWHERE.

We set up a Pet Vet Office for our stuffed animals. Lab coats, bandages, examination table sheets, blankets, etc. were all textiles that we added to the space.

Our homes are filled with textiles too. The children used a shoebox to construct a diorama of a room filled with textiles. Each room reflected the personality of the creator.
EXPLORING CHARACTERISTICS OF FABRIC

After identifying several types of fabric and discussing the various purposes, we were curious to find out which fabric would be best for the specific classroom tasks of cleaning up spills and blocking the light from the windows. The children used the scientific process of trial and error with colored water and eye droppers to test a variety of material to discover which ones absorbed liquid best. We then used a flashlight to test which materials were translucent and which were opaque.

Megu testing translucency.

FABRIC SCIENCE EXPERIMENTS

People use fabric to help them meet many needs in their jobs and their homes. Scientists analyze fabrics to test their suitability in meeting those needs. Products are developed to treat fabric to help them stand up to extreme conditions, thus making our lives safer and easier.

Testing Insulating Fabric:

I wonder...which type of fabric provides the best insulation for the ice cube.

I think...that the ice cube will melt in all of the fabric because it is warm in the room.

I learned...that the camel hair insulated the ice cube the best; it had not melted. The felt and wool were second best, the water melting with the lace and netting.

Testing Dye Fast:

I wonder...which type of fabric will hold the color of dye.

I think...the cotton and wool will hold the color because they absorbed the best.

I learned...that the cotton did hold the color best. Although the wool carpet piece soaked up the dye, it was easily washed off. (We think that the carpet had a Stainmaster spray on it.)

Testing Flame Retardent Fabric:

I wonder...which type of fabric will burn the slowest, natural vs man made.

I think...the all the fabric pieces will burn.

I learned...that the man made, treated fabrics burned the slowest (but smelled the worst!). Wool burned slowly and then went out because of the lanolin in it. Cotton burned very quickly while some synthetic pieces did not burn but melted.
SORTING AND PATTERNING

The children practiced their math skills of sorting and patterning using fabric in a variety of ways.

On Stuffed Animal Day, each child brought a favorite stuffed animal. As a large group, we discussed different ways in which we could group these animals. The children identified an assortment of characteristics to use to sort. Each time we regrouped the animals and sorted according to their ideas. Finally, we laid them out in order according to height.

The children looked through a box of buttons and came up with their own ideas on how to sort, (number of holes, color, size, etc.). After sorting with one attribute we then sorted by two (color and size).

Campbell sorting buttons.

The group sorting stuff animals.

All year we have been discovering patterns in our environment. Textiles are often decorated with patterns to give them meaning and color. Using fabric squares the children built a variety of complex patterns such as ABCC, ABBC, AABC, etc. We extended the learning into radial patterns or surround patterns. The children worked from the middle of a grid to create a pattern that was the same on the top, bottom, side and side. After we created the pattern on paper, we used the light table to paint the design onto a t-shirt. We were excited to wear our designs to the Family Festival.

RECYCLING TEXTILES INTO WORKS OF ART

Mrs. Armbruster led an activity that combined the use of textiles in art and as art by transforming her old pointe ballet shoes into pieces of art. The children painted and decorated the shoes.

Sara and Amanda painting.
We ended the unit by discussing the importance of textiles in certain occupations. Textiles can keep people safe. Firefighters wear fire and heat protective clothing. Doctors wear lab coats to protect them from germs.

Uniforms tell others who you are. Police officers wear uniforms that can be easily identified.

Uniforms can help in your job. Soldiers uniforms can camouflage them.

The children created outfits for cardboard paper dolls that portrayed an occupation. The children worked with a variety of textile scraps to dress their doll appropriately for the job.

Can you guess the occupation of the following dolls?

Alexander working on his doll.