

## RMOLL School Projects

Over 1,600 Keene students participated in Rachel Marshall Outdoor Learning Lab Projects from 1996 through 2005.

Highlights of Current and Past Projects are listed below.

### Franklin Elementary School



#### (2005) Kindergarten

The Kindergarten classes studied trees in their science curriculum. RMOLL has enriched this study by bringing the students out into their schoolyard for guided walks and investigations about local trees. Seasonal explorations have been highlighted by adopting a tree, making bird feeders, measuring trees, and planting a tree.

#### Second Grade

The second grade continues to use Beech Hill to highlight their science investigations. In the past, Antioch New England Graduate students guided the students in explorations in geology, forestry, tracking, and orienteering.

#### Third Grade

Students conducted a year long study in nature journaling. Their observations were conducted in their schoolyard and the local cemetery. They also investigated George Wheelock, a famous historical naturalist in Keene.

### Symonds Elementary School

#### (2005) Kindergarten

The Kindergarten classes studied trees in their science curriculum. RMOLL has enriched this study by bringing the students out into their schoolyard for guided walks and investigations about local trees. Seasonal explorations have been highlighted by adopting a tree, making bird feeders, measuring trees, and planting a tree.



students plant marigolds during the 'Keene Interpretive Walk' with a KHS drama club member

#### Third Grade:

The third grade learned about the local history and ecology of the Ashuelot River Park in a living history walk. Antioch New England Graduate Students and local Drama Club members worked together to design an interpretive program to highlight the history of the area and blend in the ecological concerns and stewardship issues of the past and the present.

#### Fourth Grade:

The students created a map that highlights all the projects that Symonds School has completed at Ladies Wildwood Park. This map was posted in the kiosk made by Keene High School students.

### Fuller Elementary School

#### (2005) Third Grade:

The third grade learned about the local history and ecology of the Ashuelot River Park in a living history walk. Antioch New England Graduate Students and local Drama Club members worked together to design an interpretive program to highlight

the history of the area and blend in the ecological concerns and stewardship issues of the past and the present.

## Wheelock Elementary School

### (2005) **Fifth Grade:**

The fifth grade continued their work on composting in the schools. The compost is used for school gardening projects by all grades. Each year they engage more grades to participate in gardening projects on the school grounds.

### **Kindergarten:**

The kindergarten class participated in two RMOLL projects. The Kindergarten classes are studying trees in their science curriculum. RMOLL has enriched this study by bringing the students out into their schoolyard for guided walks and investigations about local trees. Seasonal explorations have been highlighted by adopting a tree, making bird feeders, measuring trees, and planting a tree.

In addition, they highlighted their baby animal unit by studying tadpoles and vernal pools.



*Students celebrate their community projects at the RMOLL celebration in October 2003*

## Keene High School

(2005) **Earth Science:** Ninth graders integrated the study of mapping and orienteering with an exploration of Goose Pond Park, Keene, NH. They measured the length of the hiking trails for the park so that hikers have a better sense of how far they have hiked while exploring the park.

**Drama Club:** Keene High School Drama Club members volunteered to participate in a Living History Walk. They will role-play famous historical people from Keene while local third graders engage in a living history interpretive time travel walk.



*Learning to spin wool at the Keene History Interpretive Walk*

## Franklin Elementary School

2001-2004

### **Library:**

2001-2002

Franklin's 3<sup>rd</sup> grade students were engaged in investigating the natural and cultural history of the Woodlawn-Greenlawn Cemetery. Student work included the use of mapping skills to interpret the public land site. The group designed a cemetery guide that was published in the Keene Sentinel.

### **Second Grade:**

2003-04

The second grade continues to use Beech Hill to highlight their science investigations. This year Antioch New England Graduate students guided the students in explorations in geology, forestry, tracking, and orienteering. The class hopes to create an entrance sign and map for Beech Hill so residents will know how to access the park.

2002-2003

The students did an investigation of the geologic history of the Beech Hill area in the fall. They took soil samples and identify trees as they read the landscape throughout the winter and spring. The outcome of the project was an interpretive display that was published in the Keene Sentinel's "Summer Fun" issue.

2000-2001

1. The students explored and compared a present day portion of the Beech Hill Preserve to that same area in the 1800's. The outcome of the project was a photographic essay for each season of the year based on this theme. The project was presented to parents and community members during a Franklin School "Curriculum Night".

2. The two buddy classes (grades 4<sup>th</sup> and 2<sup>nd</sup>) created and performed a drama that educated people about how to use city parks in a positive way. Over 80 people attended the performance held at the Keene Public Library. This project was created to address the vandalism that takes place at the RMOLL site and at other city parks.

1999-2000

The 2<sup>nd</sup> and 5<sup>th</sup> grade students created a RMOLL Tree Guide for other classrooms and the community. The guide shows the patterns of tree growth at the 2.5 acre learning lab and includes descriptions of the trees.

### **Third Grade:**

2003-2004

Students explored the cemeteries of Washington Street. They created a Quest - a historical treasure hunt - for the Cheshire Walkers. The Cheshire Walkers are a group of citizens that attend regularly scheduled walks sponsored by the Keene Parks and Recreation Department.

2002-2003

The students investigated historical places in Keene as part of their town history curriculum focus. The final project was the creation of a banner that was hung downtown for Keene's 250<sup>th</sup> Anniversary.

1999-2000

Students studied animal habitat requirements and used this information to begin work on a habitat planting design. The group created a list of plants, flowers and trees that would attract native wildlife to the learning lab site. They passed this list on to the KHS/Cheshire Center 9th grade class who completed the landscape plans and most of the plantings.

### **Fourth Grade:**

2002-2003

The students created banners for Keene's 250<sup>th</sup> Anniversary Celebration. The classes first studied the

historical use of the Ashuelot River for transportation and how the Faulkner Colony Mill impacted Keene's development. The banners were hung along Main Street.

## Symonds Elementary School

### **Second Grade:**

2003-2004

The second grade classes designed two quests: one on the features of Ladies Wildwood Park, Keene and one on the history and land uses of Wheelock Park, Keene.

2002-2003

The student group investigated the nature and history of two city parks and then created a mural based on the information they gathered. The welcome mural covered graffiti filled walls and educated the public about the Wheelock and Ashuelot River Parks.

### **Fourth Grade:**

2003-2004

The students developed a strategy for addressing the litter problem in Ladies Wildwood Park. They decorated new trash cans and promoted recycling efforts in the park.

2002-2003

Students followed up on the 2001-2002 4<sup>th</sup> grade's investigation of the soil and tree types in Ladies' Wildwood Park. They created a list of improvements for the park along with tagging 40 trees to save.

2001-2002

Students investigated the soil and tree types of Ladies' Wildwood Park. They completed a management report and resource inventory for the park. The information was presented to the RMOLL Advisory Committee and Keene Conservation Commission. The students implemented one of their recommendations: to diversify the tree life in the park. They saved over fifty saplings that were to be cut down.

2000-2001

A group of classroom teachers, specials teachers, and the 4th grade students focused their Quest Project (Symonds enrichment program) on "Land and Water", a curriculum area for this grade. They studied a section of the Ashuelot River to learn how water can change land. The outcome of the project was a series of maps that depict the history of the changing river in Keene.

1999-2000

Students designed a storage and informational kiosk for the learning lab. Their work was directly connected to the 4th grade math curriculum. The designs were then handed over to the KHS Construction Trades students. The two groups built the kiosk together.

## Fuller Elementary School

### **Third Grade:**

2003-2004

The third grade learned about the local history and ecology of the Ashuelot River Park in a living history walk. Antioch New England Graduate Students and Keene High School Drama Club members worked together to design an interpretive program to highlight the history of the area and blend in the ecological concerns and stewardship issues of the past and the present.

2002-2003

This group planned and led a public program about birds at the North St. Nature Park. The 3<sup>rd</sup> graders designed the program for their 1<sup>st</sup> grade buddy class. This project was the 1st RMOLL project done on the site. Students also created an interpretive trail at the park.

## Wheelock School

### **Kindergarten**

2003-2004

The kindergarten class participated in two RMOLL projects. In the first project they explored the trees of their school lot. They recorded the stages of growth for the oak trees in their school yard as the spring temperatures warmed up. In addition, they highlighted their baby animal unit by studying tadpoles and vernal pools. They presented their findings to the RMOLL advisory committee.

### **Kindergarten, First Grade, Fourth Grade and Library:**

2001-2002

Student groups maintained habitat plantings in Wheelock's schoolyard. This was the 2<sup>nd</sup> year this Wheelock group worked on the project.

2000-2001

Student groups created habitat plantings in Wheelock's schoolyard. Teachers engaged students in landscaping, planting and maintenance decisions. Rebecca Whippie's horticulture students from Keene High School assisted these groups by teaching gardening skills, weeding, and growing plants for the habitats.

### **Fifth Grade:**

2003-2004

The fifth grade continued their work on composting in the schools. The compost is used for school gardening projects by all grades. Each year they engage more grades to participate in gardening projects on the school grounds. They also explored the vernal pools of Robin Hood Park and acted as guides for the Kindergarten class.

2002-2003

Students created and maintained habitat plantings in Wheelock's schoolyard and develop a food waste composting system for the school. Teachers engaged students in landscaping, planting and maintenance decisions. Composters monitor the waste in the cafeteria and maintain composting bins inside and outside.

## Jonathan Daniels Elementary School

### **Kindergarten:**

2001-2002

Students explored the pine trees of Dinsmoor Woods Park. They designed and sewed a quilt that integrated their study of shapes and featured artwork displaying the park's trees.

### **First Grade:**

1999-2000

This group conducted a pollution investigation and organism study at the northern end of the Ashuelot River Park near Daniels School. The children discovered a large amount of debris and garbage in this portion of the park. They recommended that the city place a sign at this location informing people of the harm that littering can have on local wildlife.

### **Third Grade:**

2000-2001

Students followed up on a recommendation made by a 1st grade class to place an educational sign at the northern end of the Ashuelot River Park. The sign created tells visitors they are entering the park and to care for the area during their visit.

1999-2000

This class investigated the ecology and history of the Ashuelot River Park. They worked with RMOLL staff and graduate students to understand the skills of "reading the forested landscape". With all of these skills and background, they created two three-dimensional maps that depict how the river looks during the present day and its character in the early 1900's.

**Fifth Grade:**

2000-2001

Students used communication skills to inform the public about RMOLL. Their first task was to learn about the project as they designed a project display that was shown at the Keene Bagel Works. The group also created the first RMOLL website.

## Keene Middle School

**Sixth Grade Science:**

2001-2002

Students studied the geology of a local park and shared their findings with the public.

2000-2001

The students designed a Robin Hood Park Geology Activity Page called "Rockin' Robin Hood" that was published in the Keene Sentinel. The page was created to educate the public about natural and cultural history of the park.

**Seventh Grade:**

2001-2002

The students mapped the plant and tree species that have been planted over the five-year history of RMOLL. Small groups came up with an interpretive guide of the plantings.

2000-2001

Students improved existing RMOLL habitat plantings to attract local wildlife and improve the area for human visitors. The group divided into small teams to come up with a plan for a certain plot of the planting area. They chose native plant species, dead logs, and rock pile designs that enhanced their plot.

1999-2000

Seventh and Eighth Grade students, led by teachers, completed community service-learning projects focusing on hydropower, water quality and the maintenance of habitat plantings at the learning lab site.

**Eighth Grade:**

2002-2003

The students completed projects that supported the energy portion of the 8<sup>th</sup> grade science curriculum. Each class participated in the city's Climate Protection Program and completed an energy audit of a building (City Hall, Keene Parks and Recreation Building). Students also participated in the ongoing model solar car program coordinated by the teachers. This program will also be linked with the city's Climate Protection Program.

2001-2002

Students completed a project that supported the energy portion of the 8<sup>th</sup> grade science curriculum: the study of global warming and solar energy.

2000-2001

The 8<sup>th</sup> graders investigated the energy efficiency of their school building to discover possible improvements. Students worked with school facility staff to complete this project. The results were shared with fellow classmates and the public at a presentation called "Bright Ideas".

**Technology Education (Seventh and Eight Grade):**

2002-2003

Students participated in an Environmental Technology Unit that focused on the equipment and methods of water testing at Goose Pond Nature Preserve. The group provided the procedure and data they collected to local environmental agencies through written reports, a radio show, and video. Small groups also used the technology education equipment to design and create "tools" that can be used in future water quality testing efforts.

2001-2002

Students developed an Environmental Technology Unit that focused on the equipment and methods of water and soil testing in the Ashuelot River Park in Keene. The group provided the procedure and fecal coliform data they collect to local environmental agencies. The project promoted environmental awareness and student ownership for public lands.

## Keene High School

### **Keene High School Drama Club**

2003-2004

Twelve Keene High School students acted out famous historical Keene residents during a living history interpretive walk. The Keene High School students taught Fuller School third grade students about different periods of Keene history. The High School actors and actresses role played different characters and led hands-on activities for the third graders.

During the walk third grade students interacted with: an 18<sup>th</sup> Century farmer's wife who helped them plant seeds, a Colony Mill worker who taught the students how to spin wool, George Wheelock who took the students on a nature walk, Rachel Marshall who taught the students about learning in the outdoors, a Wright Silver Polish Company employee who showed the students how to polish silver, and a survivor of the 1938 Hurricane who showed photos of the damage in Keene and worked with a Red Cross volunteer on a two way radio.

### **Ninth Grade Earth Science:**

2002-2003

1. Building on the study of earth science and specifically erosion, students restored a portion of a stream bank in the Ashuelot River watershed.

2. Students mapped Ladies Wildwood Park plotting trees preserved by Symonds School 4<sup>th</sup> graders during the 2001-2002 school year. They also learned how to make the same map using Geographic Information System (GIS) technology from an Antioch NE Graduate School student. Keene State College students guided the students to create a scavenger hunt GIS map specifically designed for Symonds School students to use to explore Ladies Wildwood Park.

2001-2002

The students continued to study a bend in the Ashuelot River to investigate geological processes work. This was the second step in establishing a long-term study site.

2000-2001

This student group studied a sharp bend in the Ashuelot River to investigate the geological processes work. This is an initial step to establish a long-term study site focused on the effects of water on the land.

### **Eleventh and Twelfth AP Environmental Science Class (APES):**

2003-2004

AP Environmental Studies:

The students continue to volunteer as guides for the RMOLL public programs. Their enthusiasm for serving as guides for Keene families has become a welcomed tradition by many. In addition, these high school students are finishing up their watershed reports for the Keene Sentinel.

2002-2003

Students supported younger students in their service-learning project work and completed their own projects. Their overarching project work focused on students writing "watershed" articles to be published in the Keene Sentinel. The class continued with the European Buckthorn study and assisted in the coordination of the RMOLL / Horatio Colony Public Program Series.

2001-2002

Students continued working to support younger students in their service-learning project work and complete their own projects. Their project continued to focus on the eradication of European Buckthorn, an invasive species, from the RMOLL site as well as coordinating the public program series.

**2000-2001**

The class worked to assist younger students in their service-learning project work, complete their own RMOLL projects, and collaborate on a bird-banding project with an Antioch graduate student. Project work focused on planning how to eradicate the European Buckthorn, from the RMOLL site as well as coordinating the public program series.

1999-2000

APES students are historically the most active student leaders of RMOLL. Students presented a wetlands education program to the Keene Conservation Commission. This group also assisted younger students doing service-learning projects at the learning lab with a "RMOLL History" presentation. A small group of students from this class represented Keene at the National Service-Learning Conference in Providence, RI.

**Eleventh Grade Honors American Studies:**

2001-2002

Over thirty students continued project from the previous year through investigating public lands and historical sites in the Keene area during field trips, and then writing their experiences for the Keene Sentinel, focusing on connection to place.

2000-2001

Over fifty students from two classes explored public lands and historical sites in the Keene area during field trips, and then wrote about their experiences for the Keene Sentinel. The writing focused on connection to place. Students named the series Tracing Places in the Monadnock Region. One article was featured in the Sentinel each week for 20 weeks.

**Keene High School Cheshire Center 9th Graders:**

2003-2004

These students built a display kiosk for interpretive signs created by the Symonds School second graders. The case is located in Ladies Wildwood Park.

1999-2000

Students created a landscape/habitat planting for the RMOLL.

**Horticulture Class:**

2002-2003

Students helped improve the habitat plantings at the RMOLL site by maintaining the many habitat plantings that were already completed as well as improve the "entrance" to the learning lab.

## MC<sup>2</sup> School

**Monadnock Community Connection School (MC2):**

2002-2003

Students of this school were challenged to take photographs/create photographic displays, create gates to hiking trails, and conduct water quality sampling. RMOLL staff assisted the school's staff to establish their "trek" program as it relates to RMOLL and HCP.

2002-2004

The MC<sup>2</sup> students have adopted [Horatio Colony Nature Preserve](#) as their ongoing RMOLL and Horatio Colony Nature Preserve project. They met with interpretive design specialists and historical building contractors to advance their plans to make the Colony cottage into an interpretation center. Reconstruction of the cottage began in April 2004.