

Spotlight on...

HHP Inc. Sawmill

By Peggy Herbert, Henniker Community School (retired)

Five years ago, HHP Inc., a local sawmill in Henniker, N.H., began to host the Henniker fourth graders for a sawmill tour. This trip offers the students a chance to see technology in action as well as job specialization, ecological use of resources and how a resource is changed from a raw material into a processed form that can then be used for many different things.

When the class arrives, they are met by President Ross D'Elia, and Procurement Manager Don Windsor, along with NHPLT staff and state forestry professionals. A "stations" format is used for the field trip and is the most effective way of keeping students' attention while still allowing for some hands-on activities. After a general welcome and introduction, the groups are given helmets and earplugs and are off.

At one station, students watch as the trucks come and get weighed on a special scale. Here they also learn what the different types of wood chips created at the mill are used for. Another station is the mill itself, where students watch logs get debarked, sawed into boards, graded and finally end up in the sorting bins. Another station is out at the gigantic log piles, where students make bark rubbings of different New Hampshire trees; use a scaler to figure out the value and volume of these trees; and learn how to plant the white pine seedling that they

will be taking home at the end of the day. The final station is the pallet shop where, after watching how machines make pallets, students work together to make a handmade pallet to take back to their classroom. At every station, HHP Inc. uses their staff to help the students understand what they are seeing and learning.

This trip is a good way to cover a number of science and social studies standards, as well as to reinforce many math concepts. Data can be collected at the mill and then used to problem solve in math back in the classroom. Here are some examples:

"This trip is a good way... to reinforce many math concepts."

1. How much does the class weigh? Weigh the bus empty and then weigh it full of students and subtract. Then use your class weight to find out what you'd be worth as hemlock chips or white pine chips.

2. How long does it take? Use a stopwatch and follow a board from start to finish. The board could be visibly marked and followed until it ended up in a bin. Older students could then figure out how many boards come through in a minute and from that, how many boards are sawn in an hour or a day and relate that to how many board feet it takes to build an average house.

3. How many board feet can you get from a log? Using Biltmore sticks, figure out how many board feet are in different logs of different types of trees.

4. How big is a tree's trunk? Radius and diameter – using measuring sticks, figure out the radius and diameter of logs. More advanced groups could then figure out a rough circumference. Younger children could use a flexible tape measure and measure the circumference.

5. Estimating – Most of these activities could be estimated before they are actually figured out.

HHP Inc. is just one of the processing mills around the state that accepts school groups. For more information about mills that support teachers in N.H., please contact NHPLT at info@nhplt.org or (603) 226-0160.



© NH PROJECT LEARNING TREE
Students measure and construct a pallet to take back to class during a sawmill field trip.

WEB RESOURCES*

- Activities Integrating Mathematics and Science: www.aims.edu
- Eisenhower National Clearinghouse: www.goenc.com
Subscription required to view curriculum resources and professional development materials.
- Educational REALMS (Resources Educating Active Learners in Math and Science): www.stemworks.org/lessons.html
- Joan and James Leitzel Center for Mathematics, Science and Engineering Education at UNH: <http://leitzelcenter.unh.edu>

* Some free, some require a fee.