



## Touching History

Our touching history project, started in Pompano Beach High School where students built an electrolysis tank to conserve an anchor that was thought to be from the Gil Blas, an 1831 Spanish BRIG, the most historically significant shipwreck in Broward County.

Designing and building the electrolysis tank is no small feat. The students learned how to read plans, cut lumber, construct and waterproof a wooden tank large enough to hold a huge anchor and hundreds of gallons of water. The obvious challenge was to make it strong enough to hold the enormous weight of the water and anchor and remain watertight.

After the tank was constructed, the anchor was prepared by chipping off all the encrustation. During this process we discovered a number of artifacts copper sheeting and nails which had been imbedded in the coral and shell coating the anchor. This material would be valuable to compare with similar artifacts in Tallahassee.

Students learned how electrolysis works and how salt water destabilizes the metal. Reversing the process is a slow procedure and restores the metal to its original state if properly carried out. A bath of a mild carbonate

solution carries the current of a 12 volt battery charger which reverses the chemical ferric oxide or red rust and black ferrous oxide and eventually to porous iron metal. turns it to

After years of electrolysis, and a move from the Pompano Beach High School to the football field, the anchor was taken from the tank and sandblasted in preparation for the anti-corrosive Ofpho coating which was followed by a two-part black epoxy paint. This three-year project culminated with the students traveling to Tallahassee to compare our artifacts with known Gil Blas artifact

ts. During the field trip to Tallahassee, we were granted permission to enter the archives in Tallahassee. With the head archaeologist, Dr. Roger Smith and the conservator, we compared the two sets of artifacts. Similarity between the two sets makes us believe that the anchor came from the Gill Blas.

Working with the city of Pompano Beach, the anchor is now on permanent display at the Hillsboro Inlet Park.