

4. 95% alcohol—6 to 12 hours*
5. Absolute alcohol—3 to 6 hours*
6. Clear in wintergreen oil or xylol
7. Mount on slide and coverslip the whole.

Transference from one reagent to another is easily accomplished by retaining the flies in a Gooch crucible while en route. The crucible containing the flies may be immersed in the reagent contained in a larger, covered crucible. When removed, after the flies are

well saturated, the Gooch crucible permits the fluids to flow off through the holes in the bottom. If touched lightly to blotting paper, the last traces of the liquid are removed and the flies can then be re-immersed in the next reagent.

Generation mounts are easy to prepare, give the student actual practice in the study of genetic mechanism, and make possible the coverage of many different mechanisms and mutations in a short period of time.

Building a Classroom Museum

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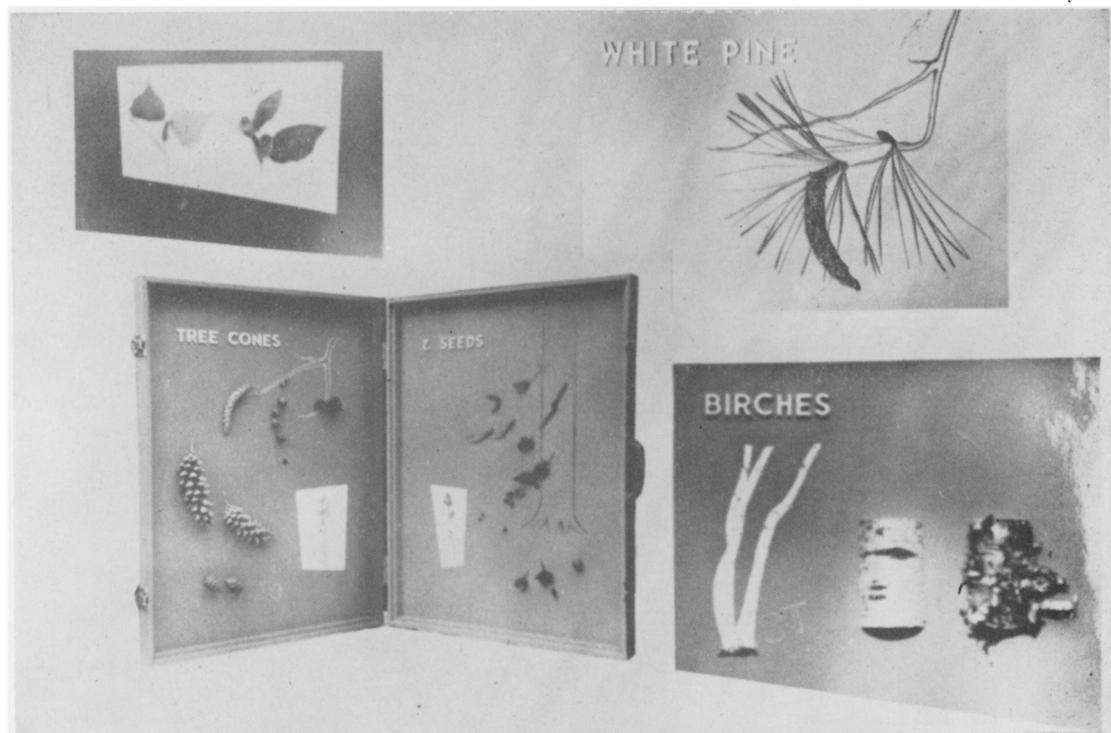


Figure 1. Open case, *Tree Cones and Seeds*, and other ideas.

Would you like to have your own classroom museum of natural history? A small cash outlay and a little work can make this idea a reality for your biology students.

In this brief outline, we are using trees for illustration. Surprisingly, trees are often overlooked entirely in museums or frequently limited to a small shelf of wood samples. Certainly an arboretum or "living tree museum"

offers much more than a display to the inquiring student. But, in many areas these facilities are not available or are inconveniently located. So why not bring the great American woods to your classroom in your own panel exhibit cases?

A lumber yard will supply 4' x 8' sheets of Upson board, and cut out 18" x 24" panels. Pick a yard doing millwork in order to get a

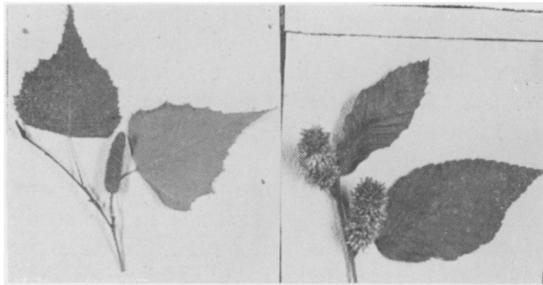


Figure 2. Mounted leaves and fruits of gray and yellow birches.

package price for the job. First, 1½" wood frames are fitted on the panels with rabbeting to protect edges. Second, two framed panels are fastened together with screws and hardware, including two hinges, two clasps and a pull. This lightweight case can be produced for approximately \$6.50. *Figure 1* shows an open case.

Beginning with the exhibit of leaves, it is suggested that some photographs of fresh leaves would be useful. See *Figure 2*. After trimming an 8" x 10" dull-finish enlargement, it can be mounted quickly and easily with Weldwood contact cement. This bonds very well on an unpainted surface when you cover the print with a sheet of white paper and press firmly all over with a book. As an alternative to photographs, you might paint backgrounds characterizing the subject involved. This is also desirable for fleshy fruits.

Now the panels may be painted entirely and letters for headings mounted with Duco cement. You can purchase ¾" raised white letters made by Hallcraft at an artist's supply store.

Exhibit composition depends upon the subject and how you plan to tell the story. For some suggestions, see *Figure 3*. When mounting specimens with Weldwood you will make a secure bond by gouging into the panel with a penknife. This method is advisable for wood samples and large seeds. Do not try to mount heavy specimens.

Cutting wood samples showing bark, grain and cross-section can be taken care of on a circular power saw in the school shop. Larger cross-sections can be cut in a saw mill.

An overabundance of labels spoils an exhibit, but a certain number are required to explain it. In the school printshop you may have standardized labels made and these mounted in place with a small, headless pin.

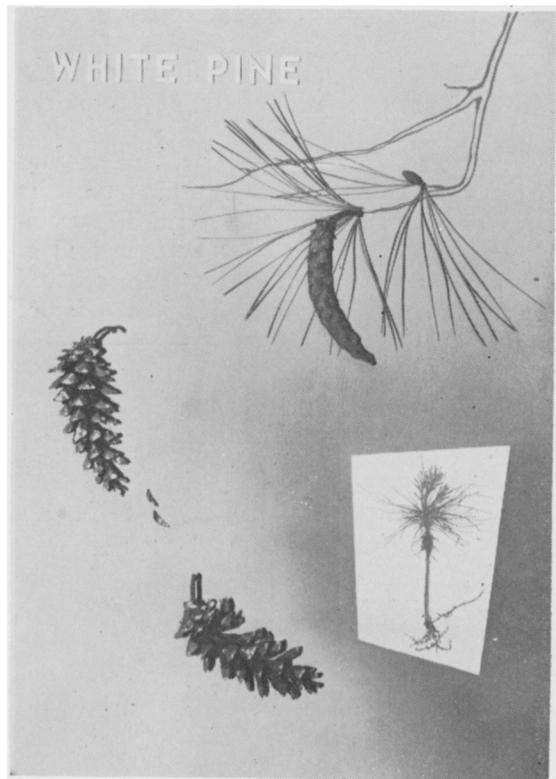


Figure 3. Panel on *White Pine*.

Within a short time you can have cases built and buy the few necessary items. By now several ideas have probably come up and you are ready to get together photographs, sketches and specimens. Students will be interested in projects of this nature, and the finished product is useful in teaching.

Why do medicines cure an ailment in one person and occasionally fail in another: And in a given patient, why does a drug sometimes produce results in one attack and not in the next? The answer, believes Dr. Gustav J. Martin, vice-president and director of research of the National Drug Company, Philadelphia, is that neither disease organism nor host tissue is ever completely specific; that the body chemistry is constantly changing. His theory starts with the concept that there are no absolute values in biochemistry—all the elements making up the body are constantly engaged in a struggle for supremacy, and the tide of battle is forever shifting. When the shift is a wide one, a disease state results, the biochemist explained.