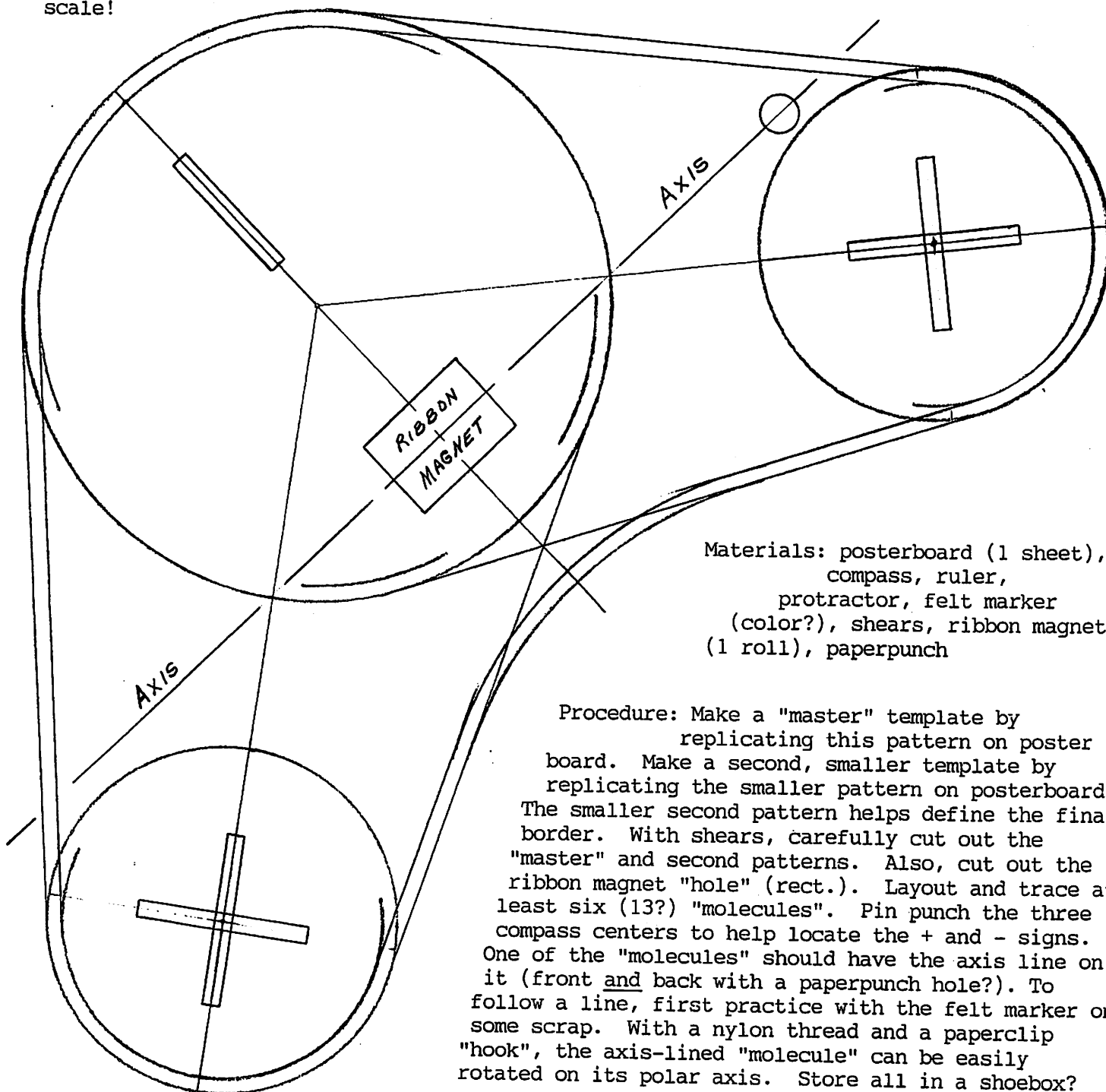


The water molecule - a teaching model

"A story about water." or "The origin of a snowflake." - A pattern(s) for a flat, posterboard, "water molecule" with a ribbon magnet on the back to be used on a steel chalkboard. The "molecule" can be used to model a gas, a liquid, and a solid. Such topics as polarity, hydrogen bonding, dissolving, and anti-freeze can be modeled and explained with the "molecule". The latter two topics might require other posterboard patterns.

Full
scale!



Materials: posterboard (1 sheet),
compass, ruler,
protractor, felt marker
(color?), shears, ribbon magnet
(1 roll), paperpunch

Procedure: Make a "master" template by replicating this pattern on posterboard. Make a second, smaller template by replicating the smaller pattern on posterboard. The smaller second pattern helps define the final border. With shears, carefully cut out the "master" and second patterns. Also, cut out the ribbon magnet "hole" (rect.). Layout and trace at least six (13?) "molecules". Pin punch the three compass centers to help locate the + and - signs. One of the "molecules" should have the axis line on it (front and back with a paperpunch hole?). To follow a line, first practice with the felt marker on some scrap. With a nylon thread and a paperclip "hook", the axis-lined "molecule" can be easily rotated on its polar axis. Store all in a shoebox?

For a more complete discussion on the water molecule, see "The Snowflake" elsewhere on this website.