4-H How to Make a Pinning Block from Wood or Styrofoam

4-H members must be careful not to damage legs and antennae of insects when using a pinning block. Wooden pinning blocks can be difficult to use without damaging the specimen. Beginning and younger members should use a Styrofoam pinning block. It is helpful to all members to pin the insect first on Styrofoam so the pin is through the insect’s body by about a ½ inch. Then members should use a small ruler to set the top of the insect 3/8 inch below the head of the pin.

Label space may vary due to the thickness of the insect. The labels of all the insects should be at a consistent height in the collection. The ¼ inch height for the bottom label is intended to place the label tight against the bottom of the box. Adjust the bottom label to accommodate the actual thickness of the material in the bottom of the box.

Using a Solid Block of Wood
1. Cut a piece of soft wood block to these dimensions: 1 inch wide X 1 inch high X 3 inches long.

2. You will need to drill three tiny holes along the length of the wood block. The holes should be slightly larger than the diameter of an insect pin. The length of the deepest hole should be 1 inch. The middle hole should be ¾ inch. The shallowest hole should be ½ inch deep.

Making a Wooden Block with Steps
1. Cut a piece of soft wood to these dimensions: 1 inch wide X ½ inch thick X 6 inches long.

2. Cut the 6 inch piece into two equal 3 inch pieces.

3. Split one of the 3 inch long pieces in half length-wise. You should now have two pieces of wood that are ½ inch wide X ¼ inch thick X 3 inches long. One of these pieces will be the bottom piece of the block. This is piece (A).
4. Cut 1 inch off the end of the second piece. You should now have one piece (B) that is 2 inches long and ¼ inch thick and one piece (C) that is 1 inch long and ¼ length thick.

5. Glue the three pieces together. Glue piece (B) on top of piece (A) creating the second step. Place piece (B) so it’s right hand edge is even with piece (A) under it.

6. Glue piece (C) on top of piece (B) creating the third step. Place piece (C) so it’s right hand edge is even with pieces (B) and (A).

   Piece (B) Step 2  Piece (C) Step 3

7. Drill a tiny hole in each step to the depth listed on the diagram. The holes should be slightly larger than the diameter of an insect pin.

Making Styrofoam Blocks
1. Place the insect to be pinned level on the Styrofoam surface. Push the insect down the pin leaving a 3/8 inch space from the insect to the head of the pin to allow for safe handling of the specimen.
   Flies and other insect with mouthparts that extend downward: Make a hole in the Styrofoam for the mouth parts so the head does not turn sideways, as it will on a flat surface.

2. For placing the labels, cut out two separate blocks of Styrofoam with different thicknesses. Do not glue them together. The outside size of the Styrofoam block depends on what works best for the skill of 4-H members. Each block needs to be large enough for the 4-H members to hold on to it without damaging the insects as they are putting on the labels.

The pieces of Styrofoam are NOT to be stacked or glued together. They should provide a flat surface, at the right height for each label, so the insect does not get damaged when the labels are being pinned under it. Draw the 13/16” x 7/16” label outline shown onto each piece of the Styrofoam for labels to help 4-H members pin the labels under their insect in the correct spot.