Kansas 4-H Woodworking Plans

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Kansas State University
Agricultural Experiment Station and Cooperative Extension Service

Please return to:
K-State Research & Extension - Dickinson County
712 S Buckeye
Abilene, KS  67410
Swing Seat

MATERIAL
1 pc. white pine or
redwood 1" x 6" x 16"

FINISH
enamel, varnish, or
unfinished.

Isometric

Plan View

Side View
Swing Seat

MATERIAL
1 pc. white pine or red wood 1" x 6" x 16"

FINISH
Enamel, varnish, or unfinished.
Broom Holder

**MATERIAL**
- 2 pc. White Pine 1"x4"x10"
- 4 #5 Flathead Wood Screws 1¼ long

**FINISH**
- Enamel or Varnish
Door Stop

MATERIAL
1 pc. White Pine or Fir
2" x 4" x 8"
1 pc. White Pine or Fir
1" x 3" x 5"
4 1/8" Flathead Screws
1 1/8" long

FINISH
Varnish or Enamel.

ISOMETRIC

EXPLODED ISOMETRIC

TOP VIEW

SIDE VIEW

DRILL & COUNTERSINK FOR
1/2" FLATHEAD SCREW
Kitchen Cutting Board

**Top View**

**End View**

**Side View**

**Isometric**

**Material:**
1 pc. maple 1"x10"x16"

**Finish:**
Varnish or enamel bottom & sides, top is left unfinished.

**Note:**
Board may be made from 8 or 13 pc. hardwood stock using dowelled joint.
Book Rack

Material: Hardwood
1 pc. 1" x 6" x 10"
1 pc. 1" x 6" x 18"
1 pc. 1 1/4" x 6 1/2"
11 #8 flathead screws
1 1/4" long

Finish: Clear

Note:
Screw holes may be filled or plugged.

Top View

End View

Isometric

Front View
Mitre Box

**MATERIAL**
- 2 Pcs. Oak 1" x 6" x 84"
- 1 Pce. Fir 2" x 6" x 84"
- 8 #8 Flathead Screws

**FINISH**
Unfinished

**ISOMETRIC**
Drill & Counterbore for #8 Screw

**END VIEW**
Wren House

MATERIAL

Roof - 2 Pcs. ½" x 6" x 10"
Sides - 2 Pcs. ½" x 10" x 6"
Ends - 2 Pcs. 1" x 6" x 6"
Porch 1 Pcs. 1" x 6" x 6"
+ Box 3d Finish Nails (3pt & Fill)

FINISH

Paint, Varnish, or Clear Wood
Preservative. Avoid Bright
Colors.

BLOCK TO FIT POST

FRONT VIEW

SIDE VIEW
Blue Bird House

MATERIALS
- Redwood, Cypress or Cedar
- 1 pc. 1/2" x 6" x 10" - Roof
- 8 pc. 1/2" x 3" x 6" - Sides
- 2 pc. 1/2" x 6" x 10" - Front & Back
- 1 pc. 1/2" x 6" x 4" - Bottom
- 1 3/4” Dowel 3” Long
- 3 Doz 1” Beads

FINISH
- Do Finish, Leave Natural.
Planting Box

**Material**
- Redwood or Cypress
  - 18 pc. 2" x 1½" x 26" - Flanges
  - 18 pc. 1⅝" x 18" - Sides
  - 5 pc. 1⅝" x 18" - Bottom
  - 1 - ½" Dowel 2'-0" Long
  - Waterproof Glue
  - 150 6d Aluminum Nails

**Finish**
- Do Finish Required if Redwood or Cypress. Flanges may be painted a different color if desired.

**Isometric**

**Side View**
Serving Tray

Material:
- Plywood - fir or hardwood veneer
- 2 pcs. ¾" x 1" x 32" - Aems
- 2 pcs. ¾" x 1" x 7" - Ends for side trays
- 2 pcs. ¾" x ¾" x 4" - Dividers for side trays
- 2 pcs. ¾" x 1" x 12" - Sides to middle tray
- 2 pcs. ¾" x 2" x 12" - Ends to middle tray
- 1 pc. ¾" x 12" x 16" - Middle bottom
- 2 pcs. ¾" x 1" x 4" - Side bottoms
- 2 pcs. ¾" dowel 7" long
- 6 oz. 1" beads

Finish:
- Stain, paint or varnish

Note:
- Glue all joints.
Nail Box

MATERIALS
- Stack of good quality softwood
- 1 piece 1" x 4" x 6-0" for sides and partitions
- 1 piece 1" x 8" x 1-6" for the ends
- 1 piece 1" x 10" x 1-3" for the bottom
- 36 5d finish nails (for the partitions)
- 6 2d no. 7 flathead screws for the ends
- 6 2d no. 10 flathead screws to fasten the handle

TOOLS
- Crosscut and rip saws, square, rule, plane, hammer, screw driver, brace and bit, marking gauge, pencil

FINISH
- No finish is required, but one may be applied
List of Materials
1-1 x 6 x 32\" (red or white birch preferred
1-5\%\% x 15\" piece of felt glued to underside.
4-3/4\" flat head screws glue, sandpaper

PLAN VIEW

SIDE VIEW

END VIEW
Wood Float

This wood float is for finishing concrete. The handle should be made from hardwood and the float from a softwood.
Salt Box

This salt box is not easily overturned and may be made from any 2-inch material either planed or unplaned. One piece of 2" x 10" x 12' lumber is needed.
Nail and Screw Holder

NOTE: Screw the jar lids onto the block on all four sides.
Bird Feeder

The feeder may be made of a weather resistant wood such as redwood, cedar or cypress and left unfinished. Any other wood will require protection. Remember, birds do not like loud noisy colors.
Mail Box Post

1" stove bolts (4) (through mail box)

screws

size board to fit box

3/8" x 4 1/2" bolts

45°

4" x 4"

2" x 4" (nail in place)

concrete

4 1/2"
Shoe Shine Box
Tool Chest

NOTE: It can be wall mounted or set on a bench.

MATERIALS NEEDED:
2 pieces of 1/2" plywood 24" X 36"
4 pieces of 1/2" X 3" X 36" fir or pine
5 pieces of 1/2" X 3" X 24" fir or pine
1 piece of 1/2" X 2" X 24"
2 cabinet hinges
2 hooks and eyes
1 metal handle
6d finish nails
4d finish nails
Tool Box

SIDE VIEW

screwdrivers & pliers

5/8" plywood

plane

3 1/2"

saw slots spaced 1" apart

TOP VIEW

pivots

varies with length of plane

i"x4"

i"x6"

i"x10"
Boot Jack

Rubber or other non-skid material.

Nail or screw block to bottom.
### Dimensions of Nesting Boxes for Various Species of Regular Box-Inhabiting Birds and the Height at Which They Should be Placed Above the Ground

<table>
<thead>
<tr>
<th>Species</th>
<th>Floor of cavity</th>
<th>Depth of Cavity</th>
<th>Entrance above floor</th>
<th>Diameter of entrance</th>
<th>Height above ground</th>
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<tbody>
<tr>
<td></td>
<td>Inches</td>
<td>Inches</td>
<td>Inches</td>
<td>Inches</td>
<td>Feet</td>
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<td>8</td>
<td>6</td>
<td>11/2</td>
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<tr>
<td>Robin</td>
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<td>8</td>
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<td>*</td>
<td>6-15</td>
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<tr>
<td>Chickadee</td>
<td>4x4</td>
<td>8-10</td>
<td>6-8</td>
<td>11/8</td>
<td>6-15</td>
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<tr>
<td>Titmice</td>
<td>4x4</td>
<td>8-10</td>
<td>6-8</td>
<td>11/4</td>
<td>12-20</td>
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<tr>
<td>Nuthatch</td>
<td>4x4</td>
<td>8-10</td>
<td>6-8</td>
<td>11/4</td>
<td>12-20</td>
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<tr>
<td>House Wren</td>
<td>4x4</td>
<td>6-8</td>
<td>1-6</td>
<td>1</td>
<td>6-10</td>
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<td>Bewick’s Wren</td>
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<tr>
<td>Tree Swallow</td>
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<td>21/2</td>
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<td>14-16</td>
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<td>6</td>
<td>12-18</td>
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<td>6</td>
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*One or more sides open.

**All sides open.

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Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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