

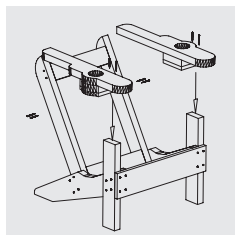
# BUILD A CHILD'S GARDEN CHAIR

## CONSTRUCTION PLAN



Difficulty level: ↑ | **EASY**

Completion time: **Half a day**



# BUILD A CHILD'S GARDEN CHAIR

Construct a smaller version of a "grown-up" chair for the special child in your life. See their eyes light up when they realize the gift of their very own space to sit back and relax. Served with a glass of juice with an umbrella to fit in the built-in cupholders, perhaps this chair will be just the trick to get your little one to sit down and recharge for a bit!

This Adirondack style wood chair is perfect for parties, gathering and relaxing around the fire pit. The design is complete with a pull up foot stool for kicking back and getting comfy. Seal, stain or paint the chair to match all styles, making it a great addition to any patio or landscape design.



## TOOLS AND MATERIALS NEEDED

### TOOLS

- > 3/8" bit
- > 3" hole saw
- > Bevel square (optional)
- > Circular saw
- > Compass (optional)
- > Drill
- > Jigsaw
- > Mitre saw (optional)
- > Sandpaper
- > Screwdriver
- > Square
- > Tape measure

### MATERIALS

- > 1 length 1" x 6" x 72"
- > 1 length 2" x 6" x 120"
- > 1 length 2" x 6" x 96"
- > 2 length 1" x 6" x 120"
- > 2 length 2" x 4" x 96"
- > 46 deck screws No. 8 (2 1/2")
- > 66 deck screws No. 8 (2 1/2")
- > Pressure-treated wood : pine or cedar

## NOTES

For this project, select-grade pressure-treated pine makes a better choice than regular treated pine because it is generally straighter and therefore easier to work.

As the chair is designed to be used by children, take care to sand the surfaces carefully to avoid splinters or other injuries.

Using glue as well as screws will make the chair sturdier and last longer. If the chair is to be used outside, we recommend the use of polyurethane glue (available in tubes). For inside use, regular wood glue will suffice. Use a damp cloth to wipe away any excess glue from visible surfaces.

Note: The dimensions of lumber are given in what are known as "nominal" sizes, i.e. the size before planing or surfacing. Finished measurements are always 1/2" less than the nominal measurement (except 1" lumber, which has an actual thickness of 3/4"). This means that lumber sold as a 2" x 6" is actually 1 1/2" x 5 1/2".

# **BUILD A CHILD'S GARDEN CHAIR**

## **NOTE ON TREATED WOOD**

### **TREATED WOOD SHOULD BE HANDLED WITH PRECAUTIONS.**

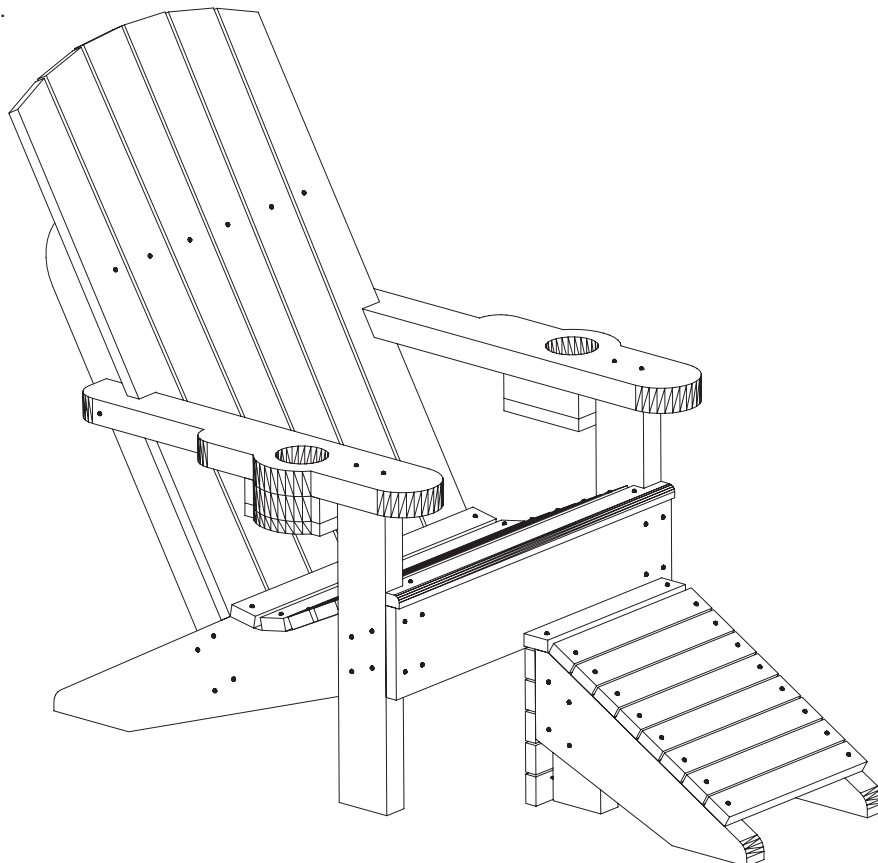
- Wear gloves and long sleeves when handling treated wood to avoid skin contact and to protect against splinters.
- Wear dust mask, eye protection, gloves and long sleeves when sawing, sanding or shaping treated wood to avoid skin contact with or inhalation of sawdust, to protect against splinters and to protect eyes from flying particles. When making cross cuts, use a cut sealer as the factory-treatment rarely goes to the heartwood.

### **DURING CONSTRUCTION**

- Apply a wood preservative on the cut ends.
- Use nails, screws, bolts, connectors and other hardware resistant to corrosion: stainless steel, hot dipped galvanized, yellow zinc or other hardware specially coated for outdoor use. Ordinary fasteners will rust, causing unsightly stains and weakening the structure, ultimately causing it to fail.
- Make certain the wood is thoroughly dry before painting or staining, and follow the coating manufacturer's recommendations. Use only good quality oil or acrylic coatings on water repellent pressure treated wood.
- Do not dispose of treated wood remnants or sawdust in compost heaps, wood chips, or mulch.
- Do not use it as animal bedding or litter.

Never burn treated wood.

## **ELEVATIONS**

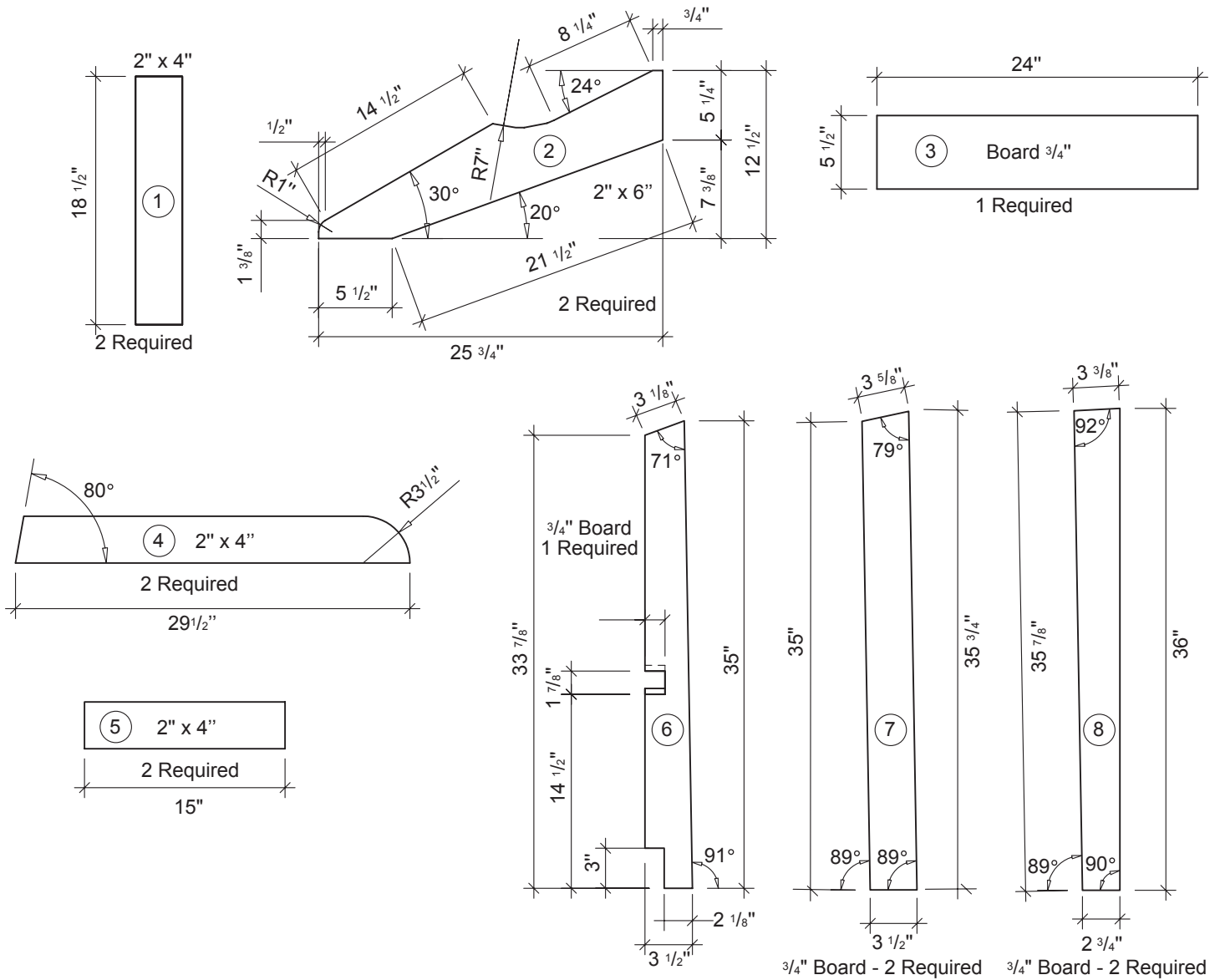


# BUILD A CHILD'S GARDEN CHAIR

## ASSEMBLY

### 1 CUT THE FRAME PIECES AND THE BACK SLATS

1.1 Cut both pairs of 2" x 4" to the required shape (4). Cut the two 2" x 4" armrest supports and the two 2" x 6" for the chair legs. To round off the ends of the legs, trace a curve using a compass or a round object of the required diameter. Cut along the trace with a jigsaw. Sand the edges for a smooth finish. For angled cuts, a mitre saw and mitre square or bevel square will be useful.



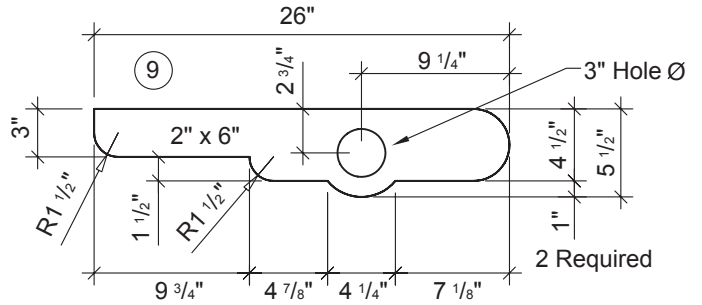
1.2 Next, take the different pieces of 3/4" lumber to form the back slats and cut them to shape according to the plan. Cut a matching pair of slats for the centre and mirror image slats for each side of the chair back. Cut notches on the two outside slats to allow for insertion of the armrests.

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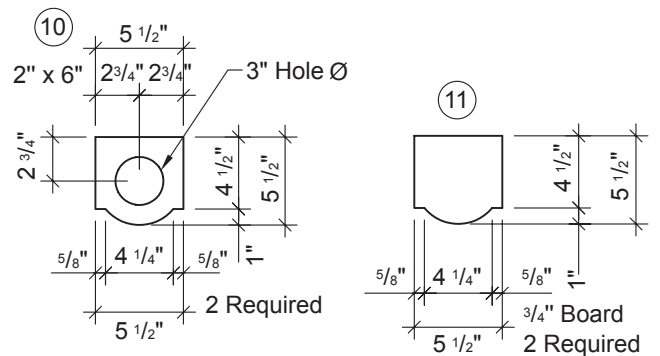
## ASSEMBLY

### 2 CUT THE ARMRESTS

2.1 Cut the two armrests to the required shape and dimension according to the plan.

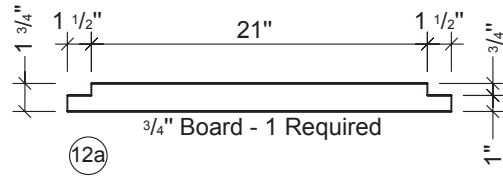
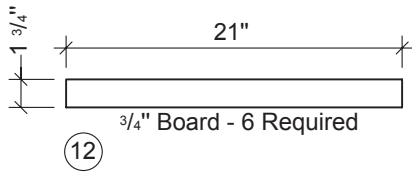


2.2 Make the drink holders from blocks that fit under the armrests. Shape the blocks by making a template and tracing the design onto the wood. Then cut a 3" diameter hole using a hole saw mounted on an electric drill. This will enable you to hold the long piece steady while you are shaping it. To make the curved edges, use a compass or other round object to trace a circular shape on the wood (do one piece at a time) and then cut out using a jigsaw. Finally, sand the pieces to obtain a smooth finish. Take into account that the kerf (saw-cut) takes 1/8" off the actual length of the cut piece.



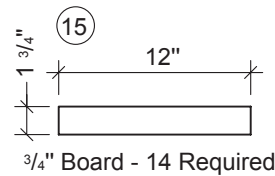
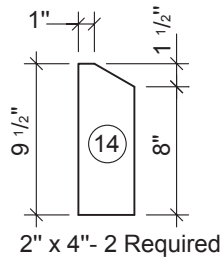
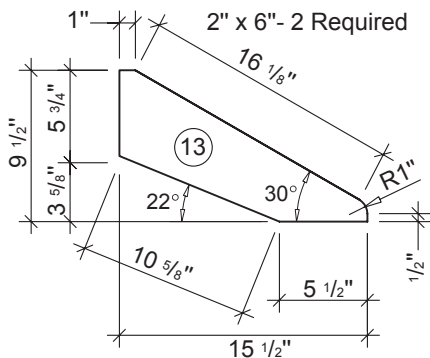
### 3 CUT THE SEAT

Cut the six slats for the chair seat and one other with right-angle notches to insert into the armrest supports.



### 4 CUT THE FOOTREST

Cut the pair of legs for the footrest using the same method as for the chair legs.



Cut the 17 pieces that will form the top and sides of the footrest.

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## ASSEMBLY

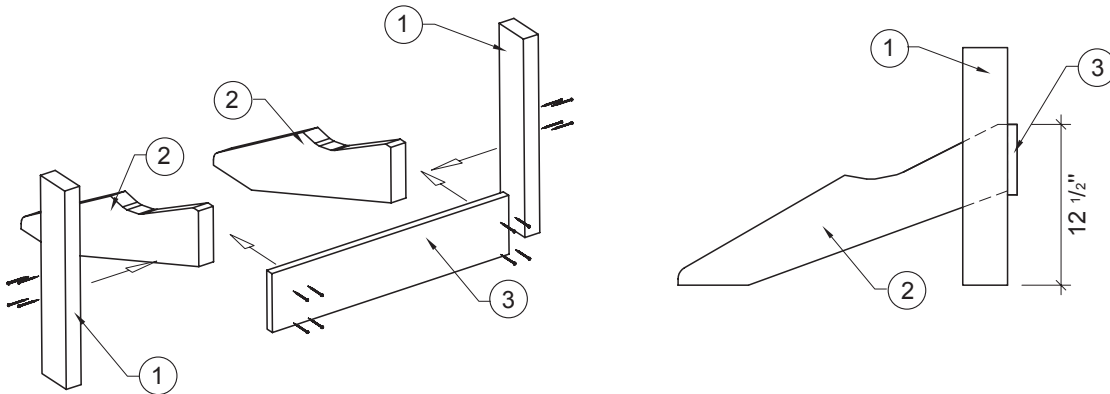
### 5 ASSEMBLE THE LEGS, SEAT AND BACK

Use a drill with a  $\frac{3}{8}$ " bit, and drill pilot holes approximately 2" deep at the positions where the different parts of the frame will meet and be screwed together. Do likewise for the footrest. To help you know when you reach the required depth, a good tip is to stick a piece of tape 2" from the tip of the drill bit. A minimum of two to four holes will be needed at each connection point. As you work, ensure that you are drilling into the wood and not into the spaces.

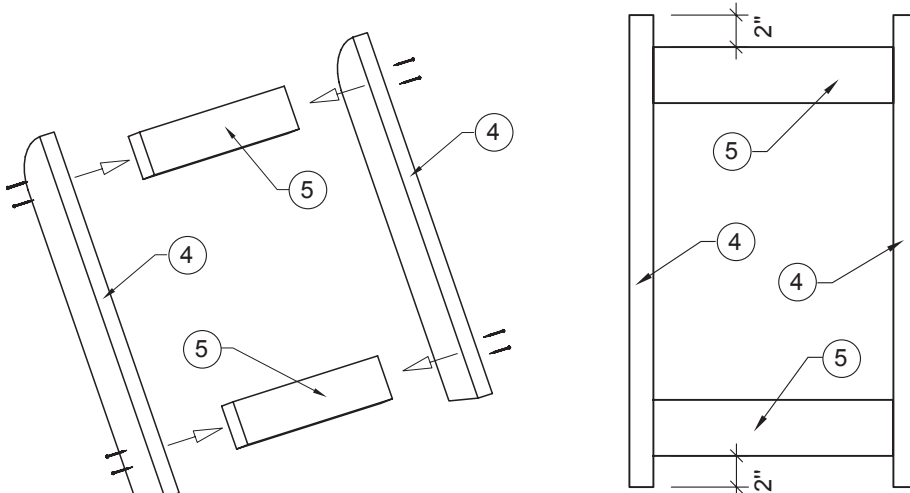
Assemble the various parts of the chair using wood screws, or you may prefer to use carriage bolts at the places where the four legs meet. Attach the bolt so that the nut is hidden on the inside of the chair or footrest, remembering to insert the washer before tightening the nut. If you do not use bolts, cross screws inserted from the outside of the chair will be sufficient to hold the frame tightly.

To insert the screws properly, you may find you need an extension bit on your drill; if you don't have one, you can finish off with a screwdriver. Use a square to ensure that the legs sit at a 90° angle to the level ground.

- 5.1** To build the seat, lay out the pieces as shown on the plan on a level work surface suitable for woodworking. Drill the  $\frac{3}{8}$ " holes, ensuring that you drill to the required depth for the anchoring system used. Wrap a piece of coloured tape around the bit to avoid drilling too deep. Once you have drilled the holes, now is the time to apply glue if you choose to use it.



- 5.2** Assemble the backrest structure

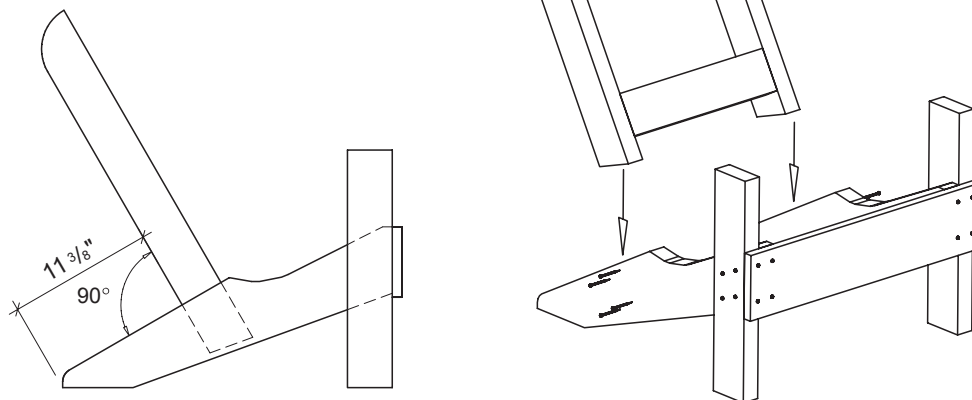


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## ASSEMBLY

### 6 FIX THE BACKREST FRAME TO THE LEGS

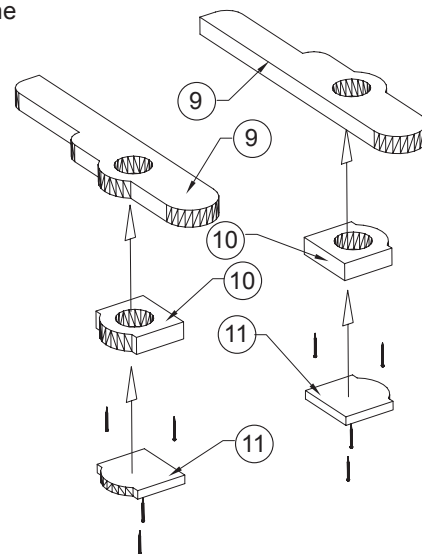
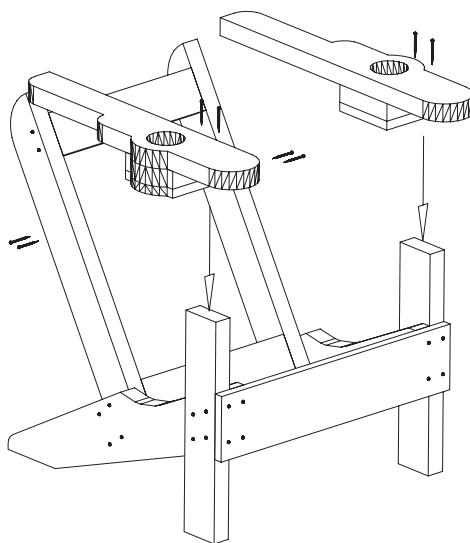
Assemble the backrest frame and legs using a square to ensure that the seat back is at the correct 90° angle. The back frame will only be held firmly once the armrests are securely in place. Use two 2 ½" treated-wood screws each time to prevent the pieces of wood moving and rubbing against each other.



### 7 ASSEMBLE THE ARMRESTS

**7.1** First, fix the drink holders to the underside of each armrest. This will help brace the armrests securely against the armrest supports.

**7.2** Position the armrests against the back frame now that it is assembled, and screw them into place before holding them steady and screwing them to the armrest supports. Adjust the armrests at the same time as you adjust the exact level of the two sides of the backrest.



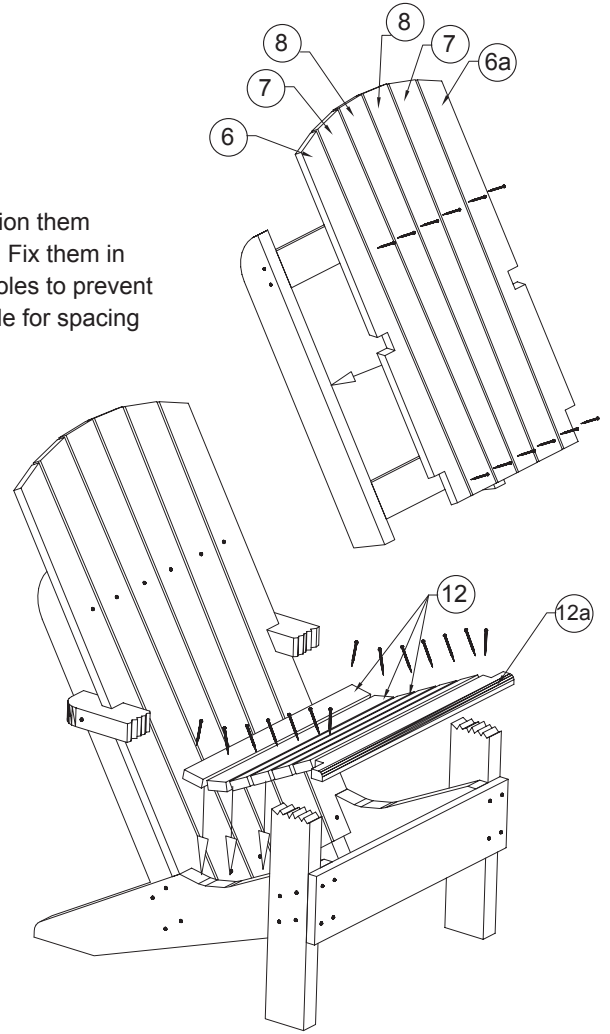
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## ASSEMBLY

### 8 ASSEMBLE THE CHAIR BACK AND SEAT

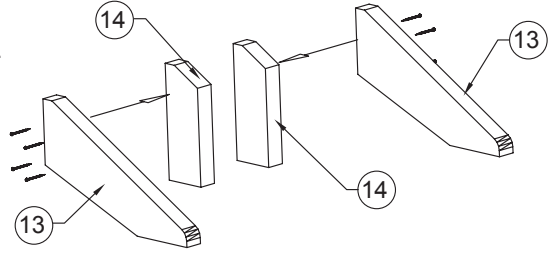
8.1 Place the slats for the chair back using shims as spacers to position them at the correct angle. Take care to space them equally and evenly. Fix them in place with wood glue and then screw together using pre-drilled holes to prevent the wood from splitting. A shim of approximately  $\frac{3}{8}$ " will be suitable for spacing the slats correctly.

8.2 Now, take the remainder of the pieces for the seat and position them, again using the shims, to make sure they are equally and evenly spaced. Fix them into place with wood glue and screws. Tighten the screws on the piece that was cut to fit the armrest support, then mount the other parts of the seat evenly using the spacers. Screw tightly into place.



### 9 BUILD THE FOOTREST

9.1 Assemble the frame of the footrest ensuring that the top slats fit perfectly on all three angles of the frame. Screw slats and frame together (apply glue first if you are using it). You should also make sure that the footrest doesn't wobble, by checking on a flat surface that it is level.



9.2 Position all the other pieces of the footrest using shims to make sure the spaces are even. When you are happy with the look, glue them into place and insert the screws.

