## Production Options

As a relatively new carpenter you have decided to choose one of two options for a product to build for your summer business. Please remember you must choose to build only ONE of the two projects. After reviewing the bill of materials for each product, as well as the equipment needed you will need to fill out the final form in this document to explain your choice in products.

Please note that you will have to buy all new equipment for this assignment, (ie. you can't save money by using dad's saw ©)

## Option 1: A children's picnic table

Description: Smaller than an adult picnic table, designed for children's heights.


## Bill of materials

| Item | Description | Nominal Material Size | Length | QuantityCost <br> per $8^{\prime}$ <br> length |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| A | Legs | $1 \times 3$ | $24^{\prime \prime}$ | 4 | $\$ 1.47$ |
| B | Top cross member | $1 \times 3$ | $161 / 2^{\prime \prime}$ | 2 | $\$ 1.47$ |
| C | seat support cross <br> member | $1 \times 3$ | $33^{\prime \prime}$ | 2 | $\$ 1.47$ |
| D | brace | $1 \times 3$ | $241 / 2^{\prime \prime}$ | 1 | $\$ 1.47$ |
| E | Table top boards | $1 \times 6$ | $351 / 2^{\prime \prime}$ | 3 | $\$ 8.14$ |
| F | Seat Boards | $1 \times 6$ | $351 / 2^{\prime \prime}$ | 2 | $\$ 8.14$ |

## Equipment list

(all purchases will be estimated using the website http://www.homedepot.ca/catalog/tools/172081)

## Description

7 1/4" 15 amp Circular Saw
10" Sliding double bevel compound miter saw
Jig saw variable speed
Jig saw blades asst. pkg.
electric drill h/d $3 / 8$ " vsr pistol grip keyless chuck Cordless drill $3 / 812$ volt compact ratcheting chuck \#2 robertson 3 1/2" driver bit (2)
drill bit $1 / 8^{\prime \prime}$ (6)
$3 \times 21$ variable speed belt sander
3 "x 21 " 220 grit belts (3)
24" bar clamps (4)
12" combination square
\#2 robertson screw driver
$3 / 4^{\prime \prime} \times 16^{\prime}$ tape measure

## Option 2: An Adirondack Chair

Description: Full sized adult chair often seen at beaches or cottages


Bill of materials

| CHAIR: | Total inches req. | Nominal Lumber | Cost /8' length |
| :---: | :---: | :---: | :---: |
| B (2) Back Legs 3/4" $\times 71 / 4$ " $\times 38{ }^{\prime \prime}$ | 76"(L x quant.) | 1x8 | \$10.12 |
| total length | 76" |  |  |
| A (2) Front Legs 11/2" $\times 31 / 2^{\prime \prime} \times 22^{\prime \prime}$ | $44 "$ | 2x4 | \$2.15 |
| $\begin{aligned} & \text { D (1) Lower Back Support } 11 / 2^{\prime \prime} \times 31 / 2^{\prime \prime} \times \\ & \text { 201/2" } \end{aligned}$ | 20 1/2"' | 2x4 | \$2.15 |
| E (2) Corner Blocks 11/2" $\times 31 / 2^{\prime \prime} \times 31 / 2^{\prime \prime}$ | 7" | 2x4 | \$2.15 |
| total length | 71 1/2" |  |  |
| C (1) Front Skirt 3/4" $\times 51 / 2^{\prime \prime} \times 22^{\prime \prime}$ | 22 " | 1x6 | \$8.14 |
| F (2) Arms 3/4" $\times 51 / 2^{\prime \prime} \times 28{ }^{\prime \prime}$ | 56" | 1x6 | \$8.14 |
| G (1) Middle Back Support 3/4" $\times 5$ " $\times 30$ " | $60 "$ | $1 \times 6$ | \$8.14 |
| total length | 138" |  |  |
| H (1) Upper Back Support 3/4" $\times 31 / 2^{\prime \prime} \times 21^{\prime \prime}$ | 21" | 1×4 | \$1.97 |
| I (1) Center Slat 3/4" $\times 31 / 2^{\prime \prime} \times 33^{\prime \prime}$ | 33" | $1 \times 4$ | \$1.97 |
| J (2) Inner Slats 3/4" $\times 31 / 2^{\prime \prime} \times 321 / 2^{\prime \prime}$ | 65" | $1 \times 4$ | \$1.97 |
| K (2) Outer Slats 3/4" $\times 31 / 2^{\prime \prime} \times 303 / 4 "$ | 61 1/2" | 1x4 | \$1.97 |
| L (2) Brackets 3/4" $\times 3$ " $\times 8$ " | $16 "$ | 1x4 | \$1.97 |


| M (4) Seat Slats 3/4" $\times 31 / 2^{\prime \prime} \times 22$ " | 88" | $1 \times 4$ | \$1.97 |
| :---: | :---: | :---: | :---: |
| N (1) Back Seat Slat 3/4" $\times 31 / 4$ " $\times 22$ " | 22" | $1 \times 4$ | \$1.97 |
| HARDWARE: | cost box/100 |  |  |
| (4) \#8 x 11/4" Fh exterior woodscrews | \$8.99 |  |  |
| (57) \#8 x 11/2" Fh exterior woodscrews | \$10.49 |  |  |
| (10) \#8 x 2" Fh exterior woodscrews | \$14.99 |  |  |

## Equipment list

(all purchases will be estimated using the website http://www.homedepot.ca/catalog/tools/172081)

10" Sliding compound miter saw
Jig saw
jig saw blades fine (6)
electric drill
Cordless drill
\#2 robertson driver bit (2)
drill bit 1/8" (6)
countersink bit \#8 (2)
$3 \times 21$ belt sander
3"x 21" 220 grit belts (3)
4" clamps (4)

# Production Options Submission Page 

Before completing this page, complete an estimate of costs by using the excel file "Production Estimate Calculator" included in this package.

Name:
Project chosen:
Rationale (Why have you chosen to build this product):

Cost estimates
Estimated total variable cost per unit after taxes: $\square$
Estimated total fixed cost for equipment after taxes:

