

# Notes & Tips for your Stained Glass Projects

## Precautions

- ☞ Every step of stained glass has potential for injury or harm.
- ☞ Please pay attention and use necessary precautions at all times.
- ☞ Safety glasses, glass handling gloves, rubber or latex gloves, and mask are some measures you can use to ensure safety.

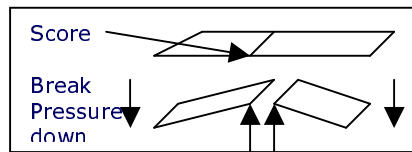
## Patterns

- ☞ Label your pattern pieces
  - ☞ Number, color, grain direction
- ☞ Make 2 copies (more if required) Note: saves some time and do this after you label
- ☞ Cut one pattern
  - ☞ Cut off the outline
  - ☞ Use foil scissors on inside lines
  - ☞ Center your cut
- ☞ Paste pattern pieces on the glass
  - ☞ Watch your grain
  - ☞ Paste on the side with the least texture
  - ☞ Position such that on tough inside curves you will have plenty of glass at the backside of your deepest cuts.
  - ☞ Don't create impossible cuts – have a plan
- ☞ You can build a jig using the other pattern – use plywood or particleboard and small molding/trim strips; a jig is useful for keeping glass in place and fitting properly, and is highly recommended for pieces that require a precise dimension.

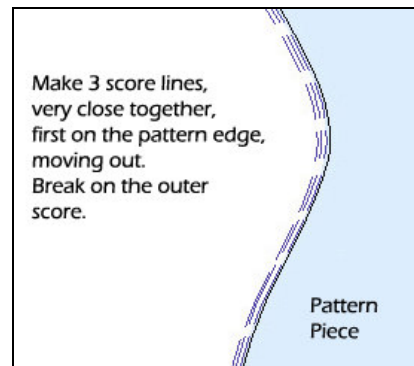
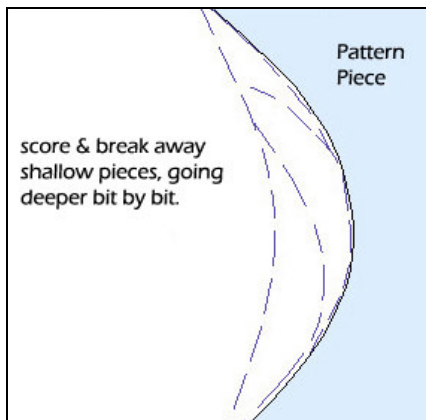
## Scoring and Breaking Your Glass

- ☞ Stand while scoring – you'll have more flexibility and less strain on your arm and shoulder
- ☞ Use & move your whole body – not just your hand/arm
- ☞ Edge to edge - start your score at an edge & continue to the other edge of the glass
- ☞ Don't stop
- ☞ Don't backup
- ☞ Don't intersect score lines
- ☞ Never go over the same score line – it will ruin your cutter
- ☞ Apply approx. 8-10 pounds of pressure
- ☞ Scores can 'heal', so break the glass fairly soon after scoring

- To break apply pressure (down & out) at points on either side of, and equal distant from the score



- Use the appropriate breaking tools:
  - Running/breaking pliers – use if there is room on both sides of score for pressure points
  - Grozers – use for small edges, tight curves and angles – apply downward pressure with your hand on one side of the score and the tool on the other. Available with various size tips. Don't squeeze too hard! Use the same down and out movement.
  - There are many other tools available – experiment and use what is most comfortable for you.
- Inside curves are more difficult – use a safety cut technique as shown below
  - Apply very light pressure with breaking pliers, alternating from one edge of score to the other – just 'til you hear & see it start to break along the score – then alternate to the other side of score, and do the same.
  - If necessary, lightly tap on backside of glass along the score line – this is not highly recommended, but as a last resort it works.
  - Safety cut techniques:



## Grinding

- ☞ Make sure the grinder bit is always kept wet
- ☞ Rinse the sponge occasionally; the glass will build up and make it hard and ineffective
- ☞ Watch water levels in grinder reservoir
- ☞ Grind right up to your paper or pattern line
- ☞ Remove the paper and label your glass with a marker
- ☞ You may wish to lightly rinse off your glass pieces after grinding to avoid scratches from the grit

## Foiling

- ☞ Thoroughly clean glass edges – check for & lightly grind sharp edges
- ☞ Center the foil tape on glass edge
- ☞ Foil all around glass and overlap approx. 1/8 inch
- ☞ Fold edges over and burnish all edges and both sides
- ☞ Do not pull foil tightly around curves – the tape will split around the curve and the cracks will be visible after soldering.
- ☞ Patch or trim any errors (use a razor blade to trim)
- ☞ It is not necessary to foil edges that will be contained in a frame

## Soldering

- ☞ Ensure there is adequate ventilation
- ☞ Tack solder pieces together
- ☞ Use a bead solder on inside lines – nice, smooth and rounded lines
- ☞ If you are going to put in a metal (i.e. zinc) frame, do not solder to the edge – leave room for the glass to fit in the channel without obstruction.
- ☞ Solder both sides
- ☞ Solder hooks/hanger if desired.
- ☞ Only solder the trim (i.e. zinc came) at corners and at solder lines.
- ☞ Wash your hands! Better yet, wear latex gloves

## Finish

- ☞ Clean flux & solder – special cleaners available; soap & water works for most flux
- ☞ Patina if desired; wear gloves and use care – follow the package directions
- ☞ Clean and ‘wax’

## Enjoy!!