

Metal Lanterns

This is metal working project that uses pop rivets. Some boys will have some pretty creative designs on their lantern.

Materials needed:

1. 9 1/2" x 6" aluminum sheet.
2. 1" section cut from the bottom of an aluminum pop can.
3. 10" 15 gauge galvanized wire.
4. Candle, cut into 3 1/2" sections.
5. Two 1/8" diam. x 1/8" working distance, aluminum pop rivets.
6. Pop riveter, tin snips, 8p nail, hammer, a 6' x 9" x 1/2" AC plywood to use as a backing when they are punching their pattern into the aluminum sheet.

Before the Meeting

1. Cut the bottom 1" from a pop can. Discard the top portion.
2. Cut the 9 1/2" x 6" aluminum sheet.
3. Drill 1/8" holes as per 1X Pattern (next page).

Assembly at the Meeting

1. Give each boy an aluminum sheet, a 8p nail, hammer and a plywood board.
2. Boys draw their pattern on the aluminum with a marker or they can free-hand it. Be sure to show them which side will be the top of their lantern (else their pattern will be upside down!)
3. Boys use the nail and hammer to make their pattern. It is important that their nail holes go thru the metal to let the light out and illuminate their pattern.
4. Coil their aluminum sheet to make a cylinder such that a rivet will fit into the top holes where it overlaps (see photo). Insert a 1/8" x 1/8" aluminum pop rivet into the holes.
5. Use a pop riveter tool to 'pop' the rivet. You will need to help the younger, smaller boys, as it takes considerable effort to 'pop' the rivet.
6. Insert the pop can bottom, upside down, into the bottom of the metal cylinder. This will make a support for the candle later on. Secure the cylinder with a rubber band or masking tape.
7. Align the 1/8" holes in the bottom of the cylinder (they should nearly aligned). Drill a 1/8" bit thru the existing holes, thence into the wall of the pop can.
8. Insert a 1/8" x 1/8" aluminum pop rivet into the holes (thru the wall of the cylinder and thru the wall of the pop can).
9. Use pop riveter tool to 'pop' the rivet.
10. Light their candle and then drip some wax into the pop can top (see photo right).
11. Immediately, extinguish their candle and set it down into the hot wax to secure it.
12. Make a handle with the 10" galvanized wire.



