



## **Bear Den 2 – Meeting #10 Activity**

### **1. Review of safety:**

- Goggles or safety glasses
- Tools are not toys so they must be treated with respect. Do not swing, throw them or use for any other way beyond the intended purpose.
- Walk do not run
- Leave tools on the table if at all possible
- First aid kit: always have one when using tools that can injure you.

### **2. Tool intro:**

- Hammer:
  - i. Parts: Face, claw and handle
  - ii. Use: Used for hammering in and removing nails
  - iii. Typical nails: Common and Finishing
- Screw driver, Phillips head and slotted:
  - i. Parts: Tip, shank and handle
  - ii. Typical screws: Phillips and Slotted. Different types based on materials that you are fastening
- Awl:
  - i. Parts: Point, shank and handle
  - ii. Use: For marking or piercing small holes in leather or wood materials
- Hand saws:
  - i. Parts: Handle, blade w/teeth
  - ii. Tool box saw – short version of a standard saw use for general purpose cutting.

iii. Coping saw – used for detail work and cutting small curves in wood.

- Hand drill:
  - i. Parts: Handle, chuck, reverse lever, variable speed
  - ii. Primary use: Drilling holes and driving screws
- Sand paper:
  - i. Different types depending on the job (i.e. Heavy for very rough surface to fine for surfaces requiring less finishing)

**3. Project: Break into 4 groups. Distribute tools and supplies.**

- Project #1:
  - i. Each group will...
    1. Take a precut piece of wood
    2. Using a ruler and pencil, mark two parallel lines across the piece and at least 1" apart
    3. On one line, use a pencil to mark 3 dots at 1" apart
    4. Use the awl and hammer to make a pilot hole on each dot
    5. Drive 3 screws in your pilot holes
    6. On you second line, mark 4 more dots 1" apart
    7. Using a hammer and nails, nail 2 common and 2 finishing nails
- Project #2:
  - i. Cut a 3-3/8" section of wood- this will give you a square when cutting from a 2x4
  - ii. Select the cleanest side and measure the center point of the piece and mark it for the center hole
  - iii. Then measure and mark the remaining positions for each hole (you should have 9 total holes). Each hole should be 1" apart.
  - iv. Drill each hole. Be careful not to drill all the way through the wood.
  - v. Sand the rough edges of the piece
  - vi. Use a ruler to measure grid lines and mark with a pencil.
  - vii. Use a ruler and marker to finish grid lines

**4. Clean-up space!!!!**