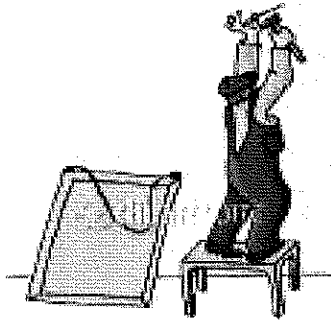


WEBELOS HANDYMAN



Handyman

Handyman is one of the easiest and flexible activities in the Webelos program. However, though Handyman is an easy topic, the den leader should handle it with care and thoroughness. Handyman allows the Scout to learn new skills and gain self-reliance and confidence in helping with activities around the house. There are also several safety and environmental issues inherent to several of the requirements.

Den Activities

1. Visit a local bicycle shop and talk with the mechanic to see if he will show you how to do a safety check upon your bike and perform minor adjustments.
2. Arrange a trip to a service station. If possible have him show the boys how to check the oil, check fluids and belts, check tire pressure, and change light bulbs.
3. Have a plumber come to your meeting and talk about basic plumbing.
4. Visit a lumberyard or a hardware store.
5. Put on a bicycle rodeo for your pack or Den.
6. Have a clinic on the care and repair of bicycles. Set it up like a shop and have each boy bring his bike and do repairs, etc.
7. Have a family car inspection.
8. Build a sawhorse.

Games

Handyman Scavenger Hut

In a boy's home or meeting place, hunt for the following items or create your own list. Boys should be accompanied by a leader or parent. They should not gather the items but instead, have the boys write down the location of each.

Here is a sample:

Pruning Shears	Edge Trimmer
Lawn Mower	Gasoline Can
Oil Can	File
Pliers	Nails
Hammer	Auto Jack
Screwdriver	Air Pump
Tire Tube	Old Rags
Old Newspapers	Aluminum Cans
Tire Pressure Gauge	Crescent Wrench
Tire Changing Tool	Jack Stand
Window Cleaning Solution	

After the locations for these tools are recorded, go over the list and see if any of the items are not stored in the proper locations. For example, are the old rags stored on top or next to the gas can in a closed cabinet? Are the pruning shears laying on the floor where young children may be able to "play" with them? Also check the tools for cleanliness and sharpness. These factors influence their serviceability.



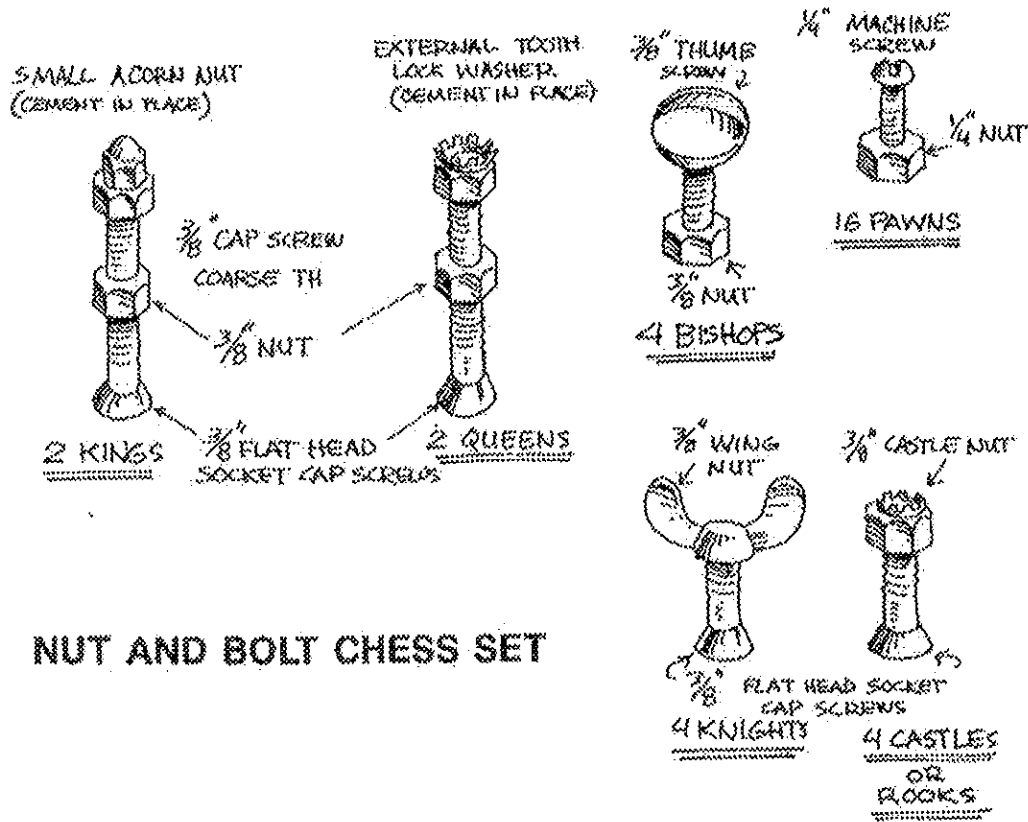
Nut and Bolt Chess Set

Webelos can learn to play chess on this unusual homemade set.

- Two small acorn nuts
- Two 3/8-inch cap screws
- Eight 3/8-inch nuts
- Twelve 3/8-inch flathead socket cap screws.
- Four 3/8-inch thumb screws
- Four 3/8-inch castle nuts or castellated nuts

- Two external tooth lock washers
- Sixteen 1/4-inch machine screws
- Sixteen 1/4-inch nuts
- Epoxy cement
- Contrasting Paint

Assemble and glue nuts and bolts together as illustrated. This makes enough for one chess game. Paint half of the pieces one color and the other half a contrasting color. Or you might make one set of steel and one of brass nuts and bolts.



Tool Silhouettes

Equipment:

- Black Construction Paper
- Poster Board
- Glue
- Tools

Trace silhouettes of small tools on construction paper. Some examples could be hammer, plane, brace, bit, wrench, or screwdriver. Cut out the shapes and glue onto poster board. Number each one. Give Webelos a paper and pencil. They look at the posters and try to identify the tools. The boy with the most correct list wins.

Tire Inflation Game

Divide Den into two teams. Have a bicycle for each team. Each boy pumps up empty tire until he thinks it's full as judged by his feeling the hardness of tire. Leader checks with tire gauge to agreed upon full tire pressure. Team with average pressure closest to correct full pressure wins. Too easy? Add a time factor like maximum of one minute per scout.

Projects & Activities

Bicycle Maintenance

Purpose: To familiarize scouts with basic bicycle maintenance and adjustments. To acquaint the scouts with the pride and satisfaction associated with being able to personally take care of one's property.

1. Tighten chain, adjust saddle and handle-bars
2. Lubricate chain crank
3. Check tire pressure
4. Inflate tire (empty first)
5. How to determine proper tire pressure

Equipment:

- 2-Bicycles
- 2 (box) Wrenches
- Rags
- Oil Can and Rags
- Tire Gauge
- Hand Tire Pump

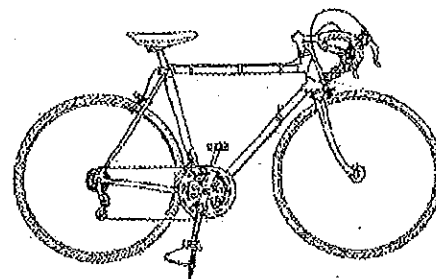
Every Saturday:

- Give it the air!
- Pump tires to the recommended pressure: Balloon 22 to 35 lbs.; lightweight 50 lbs; single tube 40 lbs.

Every Memorial Day and Labor Day

- Is your chain a daisy?
- It won't be unless you dunk it in oil, let it drain overnight, blot and apply graphite. Skip the dunk, if you're lazy, and squirt oil on the chain without taking it off the sprockets. If it crackles and squeaks, oil it more often than twice a year. A good chain should be seen, not heard. Clean and re-grease the crank bearings.

Don't be a poor pedaler! Squirt oil into the inner ends of the pedals. Spin them now and then. If they don't spin quietly, oil them more often or repack with grease.

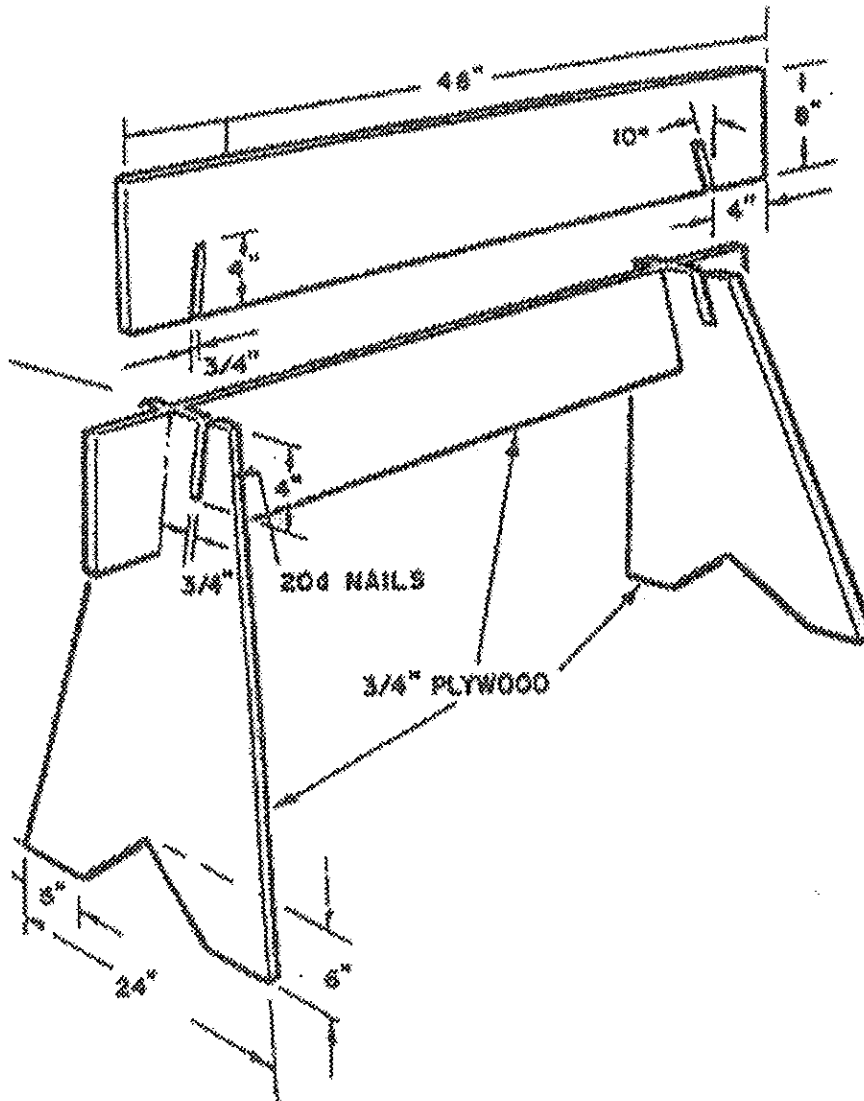


Knockdown Sawhorses

If you have a space problem or don't want sawhorses standing in the shop area when not in use, build collapsible ones out of either solid stock or plywood.

The plans for a solid stock sawhorse show how the crosshair, or rail, is slotted so that it fits tightly into the opening at the top of the legs. If the opening is tapered slightly, it helps insure a tight fit.

You can build collapsible sawhorses from 3/4" plywood. A single sheet of 4'X8' sheet will make two sawhorses. The assembled horse is locked together by 20D nails inserted in drilled holes. Make cuts accurately to insure that parts fit smoothly. Finish with tow coats of paint or clear finish. Apply soap or paste wax to the joints and the pieces will slide together easily.



Personal Bike Rack

- Need: 1/2" plywood 14" x 18"
1"x2" wood 2 feet long
2"x8" 18 inches long
1-1/4" #6 flathead screws
six penny nails
Glue
Varnish
Hammer, Drill, Saw,
screwdriver

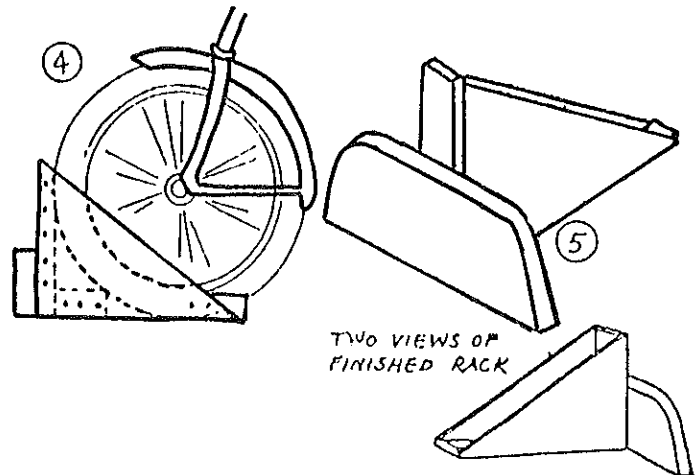
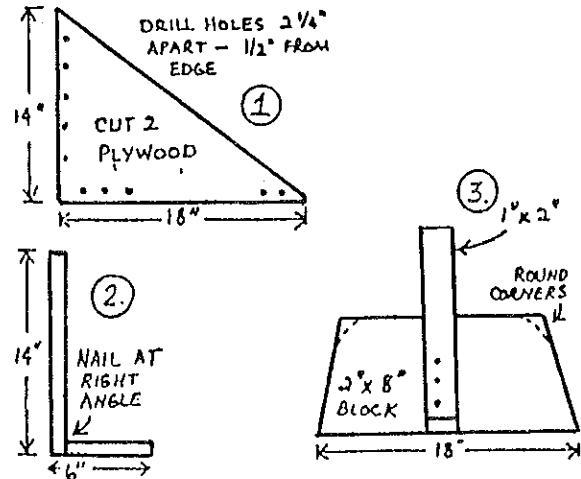
Cut plywood triangles. Drill holes as shown with a 5/32" drill bit. Paint or varnish the inside of the plywood now. It will be difficult to do it after the rack is assembled.

Cut the 1"x2" pieces. Nail the two longest pieces at right angles to each other.

Cut the 2"x8" piece. Attach the nailed 1"x2" with screws. Paint or varnish the 1"x2" now. Note: the right angle is fastened to the 2x8 with screws from the inside.

Fasten the plywood triangles in place with screws through the pre-drilled holes. Do not forget the small piece of 1"x2" that joins the tips of the triangle.

Sand and completely paint or varnish job.



Five Board Stool

The five board stool is eight inches high, and is patterned after a Colonial stool. Pine was a favorite wood for stools of this kind because they are easy to work with and will take a nice finish.

The five pieces of wood shown are standard-size boards from a lumberyard. The top is cut from a 1" x 8" board (which is actually slightly more than 3/4" thick and about 7-5/8" wide). The ends are cut from a 6" board, and the rails from 2" stock.

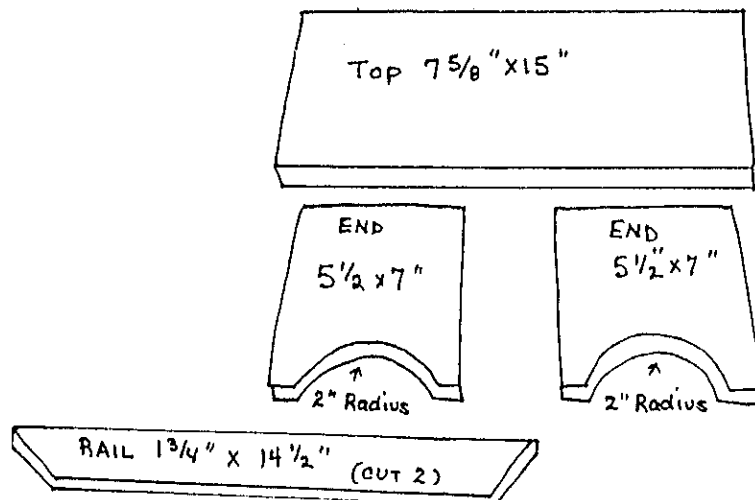
The dimensions shown in the illustration are finished sizes. In cutting allow a little extra material for trimming and finishing to size. When sawing cut just outside the line in the waste part of the board. Use a cross-cut saw for the straight cuts, and a coping saw or jig saw for the curves in the ends. Lay out the curved lines with a compass and the beveled ends on the tails with a combination square and pencil (or you can use a cardboard pattern). Use the square for marking the lines

for cutting the pieces to length as well. And be sure to use a sharp pencil.

After the parts are cut, trim the ends with a wood file. Then sandpaper all surfaces to a satin finish to remove imperfections. Assemble the stool with two 2" finishing nails and white glue at each joint. To prevent splitting the wood, first drill 1/8" holes through the rails. Then drive the nails just thru the rails and into the ends to locate their position. Next drill the same size holes for the nails in the ends, apply some glue and drive in the nails. Use a nail set to drive that heads of the nails slightly below the surface of the wood.

Give the stool a final sanding and apply a coat of satin wax to finish.

This project should be simple enough for all the Webelos to do easily; however it should give them an excellent knowledge of the tools of a fine craftsman.



Lamp Repair

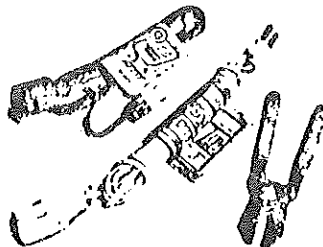
Rewiring a lamp is a basic chore all home repairmen should be able to do. Old, worn, or damaged cords and defective sockets are a fire hazard. Repairing them can be on step towards your Handyman Activity badge. Sockets, cords, and plugs are available at stores selling electrical supplies (these can even include a corner drug or convenience store).

An **extension cord** saves work. They come in 6', 9', 12', or 15' lengths. Measuring from the plug end, cut one to the length you want, and discard the socket. This often cheaper than buying a separate cord and plug. You can cut each cord to the right length for its lamp.

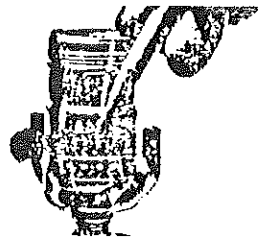
The photos show the steps to follow.



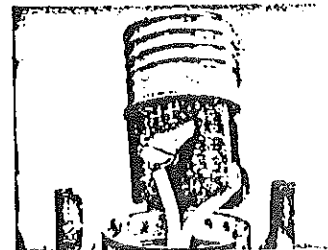
1. Three important tools in the rewiring of a lamp are a screwdriver, a pocketknife, and a wire stripper (shown above).



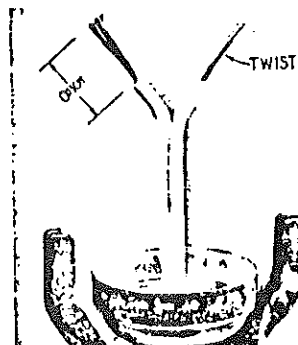
2. Extension cords with molded-on plugs are easiest to use. Use notch no. 18 on your wire stripper to trim them.



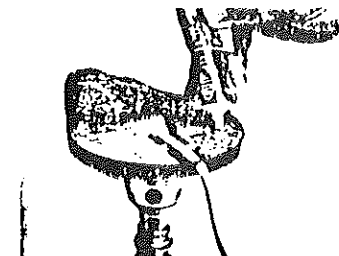
3. Socket shells just snap together. To separate them, look for the PRESS mark. And remember, do not remove the paper or fiber insulating liner inside.



5. Wrap the wire around the screws in a clockwise direction, and tighten the screws. Trim excess wire; then reassemble.



4. Remove the old wire and install the new cord. Cut the insulation to separate the wire leads. Then remove insulation with a knife or wire stripper, and twist the wire.



6. Loosen the felt base cover with a knife to get at the wiring. Use a strong cement to put the felt back in place later.

Bike Courtesy

Now that the bicycle is recognized as a vehicle and not a toy, every rider is a driver and is expected to conduct his actions as a good citizen should.

This is essentially the Golden Rule in action and can make cycling safer and more enjoyable for all thus helping bicyclists retain a favorable public image.

Show courtesy to fellow cyclists by:

- Not riding too close
- Giving hand signals
- Pointing out broken glass, grates, and other road hazards
- Aiding a cyclist having troubles
- Warning of your approach, for example, by saying "passing on your left"
- Not leaving novices behind

Ice Block Neckerchief Slide

Materials: Styrofoam square
Pipe cleaner (craft size)

Push pipe cleaner through the styrofoam until both ends stick out the other side. Twist to fit around the neckerchief.

Nut, Bolt, and Nail Holder for Dad's Shop

Take a piece of 1x4 pine board and paint it any color. Save up baby food bottles and nail the covers to the board then screw the bottle on the cover. Dad can put his shop supplies in each bottle and tape label on each side above his bench. This is a great gift for him on any occasion. Another nice gift is to take another board and drill holes in it to fit different tools and nails on the front to hang hammers and wrenches on.

Show courtesy to motorists by:

- Not hogging the road
- Obeying all stop signs and traffic lights
- Giving hand signals
- Riding in a straight line with other vehicles
- Giving motor vehicles a wide berth and not driving all over the road
- Getting all bikes off the roadway when you stop for a break

Show courtesy to the public by:

- Giving pedestrians a wide berth. Not blocking doorways or gas station entrances with your bicycle
- Not parking your bike against plate glass windows
- Not taking short cuts across lawns or private property
- Greeting people along the way with a smile and a wave and "Good morning" or "Good afternoon"

HANDYMAN**BICYCLE HANDYMAN IDEAS**

- Have the boys bring their bikes to a den meeting at a local park. Do requirements 5, 6 and 7. Then go for a bike ride to help earn the Bicycling Belt Loop.
- Have the boys help plan a mini bike rodeo for a park meeting where all the Cub Scouts are invited to bring their own bikes. Webelos Scouts can set up a "safety station," where they check the condition of safety equipment on the bikes and go over safety tips with the younger boys. Ask a local bike dealer if someone can come and help with the safety check. Contact the police department to see if someone can come to register bikes in case of theft. In some areas, the police department will run a bike rodeo and safety program for you if the entire pack is involved.
- Ride to the neighborhood park and have a picnic.
- Go to a bike shop and have an expert demonstrate different types of bikes and show how to take care of a bike.

BICYCLE HINTS

Secure copies of bicycle maintenance manuals for each boy in your den. The American Automobile Association (AAA) offers many pamphlets and checklists free. Local bike dealers or repair shops may also be able to provide information.

FRAME

Watch for cracking of paint, which usually indicates a break in the metal frame. If a crack is apparent, have it brazed, welded, or repaired immediately. Care for your bicycle as thoroughly as an adult does a car - wash, wipe, wax, and polish often.

CHAIN

Keep it clean by washing it occasionally and removing grit and dirt. Oil and adjust properly to prevent it from coming off the sprockets. Light oil is best for lubricating.

WHEEL BEARINGS

To clean, loosen the cones and wash carefully with cleaning solvent, rolling them in the liquid until clean. Dry thoroughly, re-pack with bearing grease, and re-adjust the cones.

HANDLE GRIPS

Could cause you to take a "nose-dive" if not fastened tightly. If necessary, glue them on to avoid slipping.

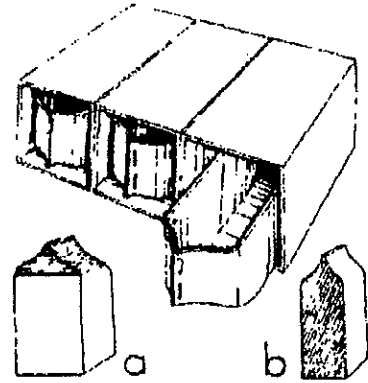
HEADLIGHTS AND REFLECTORS

Keep these clean and, if you must ride at night, lighted. Motorists depend on you to have and use this equipment.

WORKSHOP ORGANIZER

Materials: 3 quart-size milk cartons; 3 half-gallon milk cartons; Stapler; Scissors; Glue; Paint (Any paint that sticks to the surface. If such is not available, mix a small amount of kitchen cleanser with poster paint)

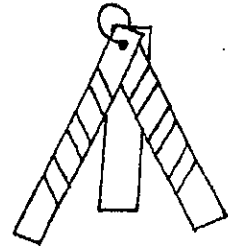
1. Cut away one side of each quart-size carton to the peak. (See illustration)
2. With a stapler close the open end of three quart-size milk cartons.
3. Cut away the top of three half-gallon cartons--now you have tall rectangle boxes.
4. Glue and staple the sides of the three half-gallon cartons together. (To make the outer case more secure, you may want to tape them together as well.)
5. Paint the exterior of all cartons.
6. Slip the quart-size cartons into the half-gallon cartons. The peaked side will serve as a handle.




AUTO REFLECTORS

Changing a tire at night on the side of the road can be dangerous. You need reflectors of some type to warn oncoming traffic of your car. The boys can easily make such a device.

Materials: 1/4" plywood (cut 3 pieces, 2" x 8"); Drill; Reflector tape; Coat hanger



1. Sand plywood pieces and drill a 1/4" hole in the top of each. Each reflector is made of three pieces of plywood.
2. Cut the coat hanger into 6" pieces. 
3. Cut reflector tape into several 2-3" lengths and stick onto two of the three pieces in a diagonal pattern. Space the tapes evenly.
4. Stack the two wood pieces with the tape on top of the plain wood piece. The top holes should line up. Push a piece of coat hanger wire through the hole and wrap the ends of the hanger to form a loose loop. Tape off the ends so that they will not be exposed.
5. The reflector is formed by creating a tripod. The two legs with the reflector tape should face traffic at night. Place the reflector about 10 yards behind vehicle to warn oncoming cars. Make and carry more than one.

HIDE AND SEEK--GAME

Pretend you are a tiny speck and that you are hiding in the car. The others ask questions like, "Are you inside the car?" "Are you on the hood?" "Are you under the seat?" You answer yes or no. The person who guesses your hiding place can be the next one to pretend to hide.

Encourage boys to use correct name for the parts.

VARIATION: Play this game pretending you are hiding somewhere on a bicycle.