

Basketball - Make-a-Basket Game

This is a game that boys will play for hours. See how many consecutive baskets they can make before they miss. This project can be used to introduce boys to electric screwdrivers (which they love!).

Materials:

1. 1 - 5/8" x 5/8" x 12" parting molding (for goal post)
2. 1 - 1x 6 x 12" pine/fir (for base)
3. 3 1/2" x 4" x 1/4" plywood (for backboard)
4. Clear plastic small drinking cup (for basket)
5. One 1/4" (or 3/16") x 1" x 11" plywood or lath strip (for spring board). If you use a lath strip, you may want to rip it to 3/4" or 5/8" to make it more 'springy'.
6. One 5/8" diameter wooden ball (with hole) (cf. www.craftparts.com, BE1050).
7. 20" strong string,
8. One shim - 1/2" x 1" x 1/4".
9. Two 1" x #8 sheet metal screws.
10. One 2" sheetrock screw.
11. One 3/4" x #6 sheet metal screw.
12. Two 3/4" brads.
13. White glue.
14. Tools needed at meeting: hammers, electric screwdrivers, knife to cut string and to put hole in plastic cup.



Before the Meeting:

1. Cut 5/8" notch, centered in the end of 1 x 6 board (cut so 5/8" parting molding is snug in the notch).
2. Predrill 1/8" hole in 5/8" parting molding about 5/16" from the end of the parting molding. Then countersink hole so sheetrock screw will be flush.
3. Use a 1/2" bit to make 2 dimples in one end of the spring board (used to hold the 'ball' before shooting).
4. Drill 1/8" hole in opposite end of spring board (5/8" from end), drill a second 1/8" hole 4" from that same end (for screw to hold spring board to shim).

Assembly at the meeting:

1. Glue and nail backboard to goal post using 2 - 3/4" brad nails.
2. Tie wood bead to string (double knot it).
3. Attach goal post with backboard to 1 x 6 base (in the notch) using 2" sheetrock screw and electric screwdriver.
4. Put free end of string under spring board next to goal post. The ball on the string should be about 16" from the base of the goal post.
5. Attach spring board to base (as shown) using 1" x #8 sheet metal screw.
6. Lift free end of spring board and put 1" x 1/2" shim under spring board, about 3 1/2" - 4" from goal post. The free end of the spring board should now be about 1/2" above the 1 x 6 base. Try making a basket to see if the spring board is 'springy' enough or too 'springy'. Adjust shim forward or back to increase or decrease the throw of the spring board. Then put in second 1" x #8 sheet metal screw to secure the spring board.
7. Use electric screwdriver to attach basket (plastic cup) to backboard using 3/4" x #6 sheet metal screw.

Remember that with younger boys (1st-3rd graders), you will need to do more of the work before the meeting (ex. attach the backboard to the goal post).