

**Pioneer Games, How they were played
and, How to make them at home.**

Walking on Stilts



To walk on stilts, place the pole behind the arms as shown in the picture above. Place the foot steps close to your feet with one slightly ahead of the other, with your back straight. Place hands on staff about hip high. Once you step up, use your hands to lift the pole, not your feet. Keep your knees flexible. Try not to look down at your feet as that will cause you to lean forward and you will fall forward. Have fun.

To make stilts: Use 2"X2" with the edges sanded. The length should be long enough that the pole is at least 6" above the user's shoulder. Steps are made of 2"X4". Recommend using 2 1/2 "grabber screws and Gorilla Glue. Pre-drill the screw holes. Number stilts if desired.

Bean Bag Double Can



The bean bag is placed in one can and tossed straight up in the air. Once the bag is in the air, flip the handle over and catch the bag in the other can. This can be done either side to side or in front of the player.

The handle is about 12" long using a 1"X2" pine fence slat. The cans are 7 oz tuna fish cans. Recommend 3/8" wood screws and gorilla glue. The bean bag is made of heavy cotton cut into 2" squares, filled with clean sand.

Graces



The sticks are made of 3/8" oak or some other hard wood dowel about 3 to 3 1/2 feet in length. Hoops are made of plastic. Wooden hoops will work but are more apt to break. Recommend heavy weight embroidery hoops.

To Play: Hold one stick in each hand. Place hoop over stick and cross sticks (See photo), hold stick ends close to chest, tips pointing up at 45 degree angle. Take a step forward, at the same time push sticks away from your chest, while pulling the sticks apart. Opponent stands 15 to 20 feet away and tries to catch the flying hoop on their sticks before the hoop hits the ground.



Paddle Ball



The ball hanging on the string is lifted above the paddle and the paddle is moved under the ball, which falls on the paddle surface, with player rolling the ball into one of the numbered holes. Competition can be conducted between two or more players to see who can get the highest score.

Paddle are made of 1/4" plywood. The overall length is 12". The upper part is 7" X 7". The holes are 3/4" wide, and are 1 1/4" apart. The string is 13" long, and the ball is 1".

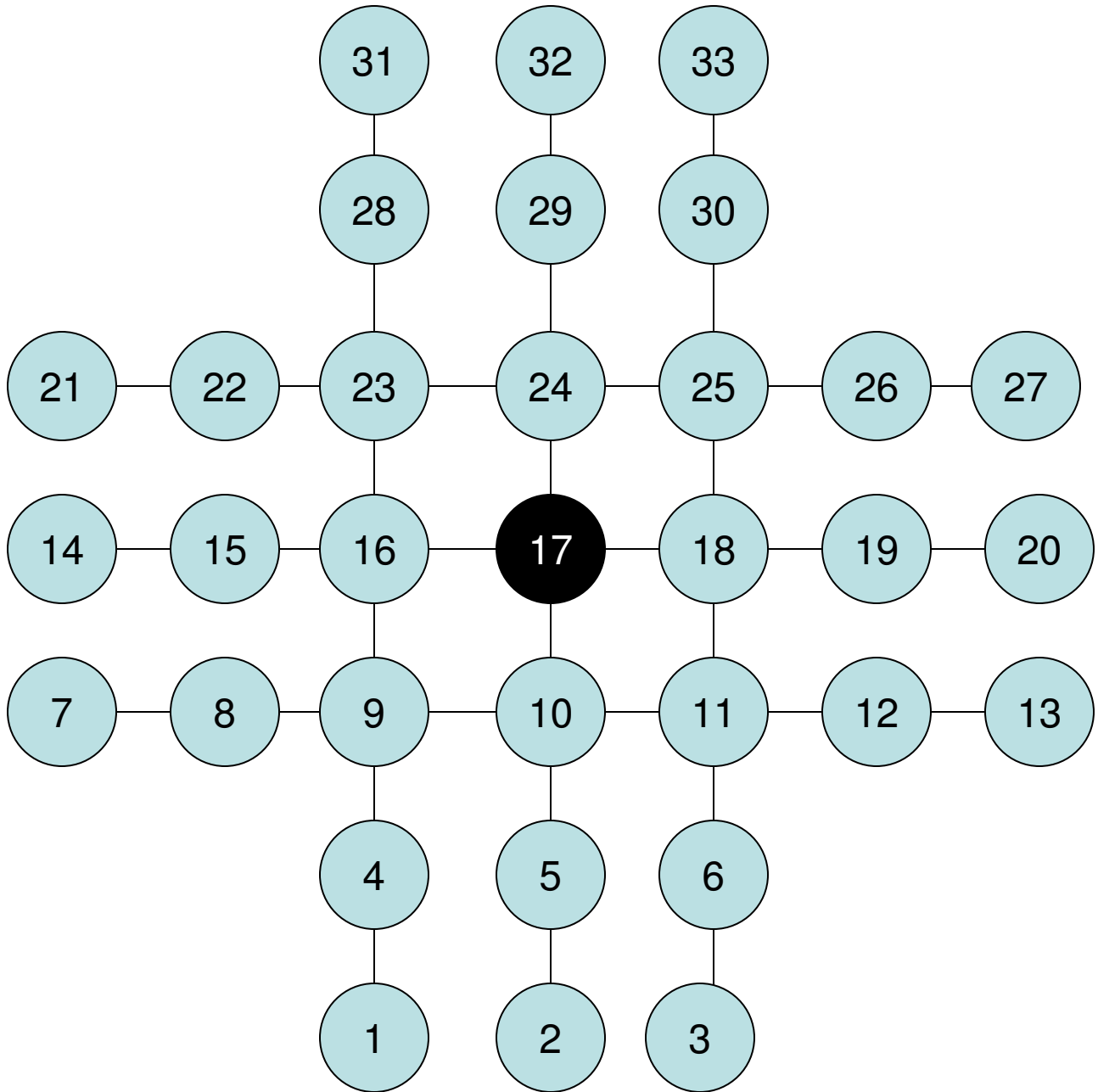
Fox and Geese



The Fox and Geese is a pattern game. The object is to eliminate every marble on the board except one, and that one must end up in the middle hole. Place the 32 marbles in each hole, leaving the center hole empty. You can jump 1 marble at a time, 2 at a time, 3 at a time, etc. as many times as you want, if you have a hole to end up in. You can not jump in a diagonal direction. The marble that is jumped is removed from the board.

To make: Cut 1" X 12" board, (pine or hard wood) into a 9" circle. Drill 33 holes, $\frac{3}{8}$ inch drill bit, $\frac{1}{2}$ inch deep as shown in the photo. Use 32, one inch marbles. In the photo above you will see a router groove cut around the outside of the board to hold the eliminated marbles. This groove is optional as eliminated marbles can be held in any cup, bowl, etc.

Fox and Geese

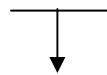


Game starts with Hole 17 empty. The object of the game is to eliminate every marble on the board except one and the last marble must land in the center or hole 17.. You can start with any marble. You can jump more then one marble at a time. You can NOT jump diagonally.

SOLUTION TO FOX AND GEESE

Marbles jumped over are taken off board

JUMP	OVER NUMBER	LAND ON
5	10	17
12	11	10
3	6	11
18	11	6
1	2 & 6	11
30	25	18
27	26	25
24	25	26
13	20 & 26	25
22	23	24
31	28	23
16	23	28
33	32 & 28	23
4	9	16
7	8	9
10	9	8
21	14 & 8	9
24	23	22
22	15	8
8	9	10
10	11	12
12	19	26
26	25	24
17	18	19
29	24	17
16	17	18
19	18	17



All one move



End of Game

Hoop Roll



Use the stick to keep the hoop rolling forward or to turn in a circle. You can even have races.

To make:

The stick it is best made of hardwood and it's measurements are

36" long, $\frac{3}{4}$ " thick, and 1 $\frac{1}{4}$ " wide. The bottom piece is 6 $\frac{1}{2}$ " long, 1" wide, and $\frac{3}{4}$ " thick.

The hoop is: Circumference is 61 $\frac{1}{2}$ " or 18" to 19" diameter, and 3 inches wide. It can be made of metal, plastic or wood. A bike wheel without the spokes and hub works. They can also be found by searching on the internet.



Climbing Bear



The Climbing Bear is operated by grasping the ends of each line and pulling tight. Pull the lines with the action of milking a cow and the bear will climb to the top of the lines.

See the next page for the Climbing Bear pattern.





Pattern for Nauvoo climbing Bear

Jumping Monkey



The Jumping Monkey is operated by squeezing the bottom of the two arms as shown in the photo above.



Jacob's Ladder



The pictures show how to operate Jacob's Ladder and how they are strung together. Instructions on how to make Jacob's Ladder are given at www.woodcraftarts.com/jacob.htm

Gee-Haw Whammy Diddle



The Whammy Diddle is operated by placing the serrated staff in the left or right hand and rubbing back and forth on the serrated edge of the staff with the rod in the other hand. Extend your thumb like the lady on the left. The propeller will spin in the direction of the hand holding the rod.



The $\frac{3}{8}$ " staff should be about 11" long. The staff is broken into three parts. The front to the ridges is 2". The ridges are 3". And from ridges to end of staff is 6" and the rod about 6 to 8 inches long. The propeller is about $\frac{1}{4}$ " wide, $1\frac{3}{4}$ " long and $\frac{3}{8}$ " across. It is tacked into the staff with a small finishing nail. The hole in the propeller should be slightly larger than the nail so it will spin easily.

Spinning Tops



These wooden tops are made of round pieces of wood, with a dowel thru the middle. The dowel should be about $\frac{1}{4}$ inch and about 3" long and rounded on one end. The round pieces of wood are toy wooden wheels that can be found at most craft shops.



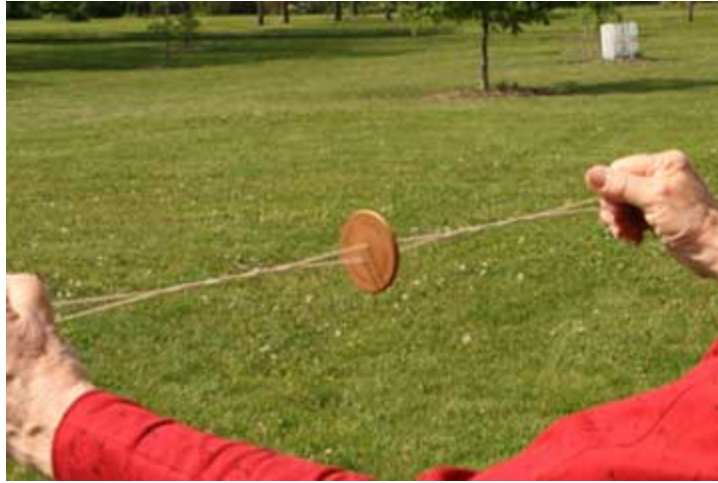
Stick Pull



Two opponents sit facing each other with their feet touching (See photo). One opponent's hands are placed on the inside, the other on the outside. The hand position is decided by flip of a coin. On "GO" the opponents pull on the stick trying to unseat each other, until one is pulled to his feet or feet break contact and one is hurled off the mat.

The stick can be made of any hard wood, even a broom handle. It can be 4' Long, about 2 ½ to 3" in diameter. The mat is used to keep the opponents clean.

Buzz Saw or Whirly Gig



This game is played by placing your finger on the ends of the loop of string with the button or whirly gig in the middle. Swing the whirly gig either away from you or toward you until the string winds up. As you pull both ends apart the whirly gig will spin as the string unwinds. As it passes center it will wind in the other direction. When it gets to the end of winding to the other side pull the string apart again and keep pulling it alternating the whirly gig back forth like a buzz saw.



Note in the picture above that the string is strung through the whirly gig's two center holes. The string is long enough to form a loop about 1 to 1 ½ ' long. Butcher's roast string is best. Large buttons the size of a silver dollar work better than wooden whirly gigs.