

Topics: Addition, Motor Skills

Materials List

- ✓ 10 Plastic bottles
- ✓ 1 Wooden ball
- ✓ 3 Foam pieces
- ✓ 2 Chenille stems, cut in thirds

This activity can be used to teach:

- Addition of two- and three-digit numbers (Common Core Math Standards: Operations and Algebraic Thinking, Grade 1, 6; Grade 2, 2; Number and Operations in Base Ten, Grade 1, 4&5; Grade 2, 5, 7, & 8; Grade 3, 2; Grade 4, 4)
- Problem Solving and Reasoning (Common Core Math Standards: Mathematical Practices Grades 1 -8)

Bottle Bowling

A Classroom Version of the Classic Alley Game



This RAFT version of a classic game uses plastic bottles as bowling pins and a small wooden ball. It plays just like the bowling alley game, but instead of a computer keeping score, the individual players must keep track of their points. Scoring gets a bit tricky when a strike or spare is rolled, providing excellent opportunity to practice basic arithmetic.

Assembly

1. Connect the foam pieces together using the chenille stem pieces, creating 1 long piece of foam with 3 sections. Push the chenille stems through the holes in 2 blue foam pieces, and twist the chenille stem ends together.
2. Set up the foam pieces behind the “bottle pins” to form a back-barrier.
3. Use the template to set up the ten bottles in front of the barrier, creating the playing area.

Playing the Game (for 2-4 players)

1. Players take turns trying to knock down all of the bottles. They get 2 tries per turn, and a turn is referred to as a “frame”. The ball should be rolled from 1 meter away from the bottles.
2. Player 1 rolls the ball to the bottles, counts the number of bottles that fell, and notes the score. Leave bottles that have fallen where they lie. If player 1 knocks down all of the bottles on the first roll, this is a “strike” (see scoring); the turn is over.
3. If player 1 did **not** knock down all of the bottles, she rolls the ball again, trying to knock down the remaining bottles. Note the number of bottles knocked down on this roll. If all bottles are knocked down on this second roll, it is a “spare” (see scoring).
4. Each player bowls 10 frames. The player with the most points wins.

Scoring

5	3	5	/	4	2	X	X	2	6
Running total		8	22	28	50	68	76		

- The number of bottles knocked down with the first ball goes in the first small box.
- The number of bottles knocked down with the second ball goes in the second small box.
- These two are added together to get a “running total”.
- If all bottles are knocked down on the second try, indicate a “spare” with a diagonal line. Spares are worth 10 points + the number of bottles knocked down with the next roll. In the example above, the player had 8 points. The spare added 10 points + 4 points from the next frame. The running total is $8 + 10 + 4 = 22$.
- If all bottles are knocked down on the first try, indicate a “strike” with an “X”. Strikes are worth 10 points + the number of bottles knocked down with the **next 2 rolls**. In the example above, the player had 28 points. The strike added 10 points + 10 points from the next frame and 2 points from following roll. The running total is $28 + 10 + 10 + 2 = 50$.

Web Resources (Visit www.raft.net/raft-idea?isid=312 for more resources!)

- Teacher designed math courses – <https://njctl.org/courses/math>

