

## Extending the Mathematics

The major mathematical concepts your child is being introduced to while playing Target Ball are problem solving skills, size, weight, distance, counting, and number relationships.

To extend the learning of mathematics found in games like Target Ball, attempt to change a few of the items being used. **However, it is important to remember to only change one item at a time.** This will allow your child time to think and consider what is happening and the effects caused by the change. For example:

- a. Change to a different ball. This could be from a tennis ball to a bigger ball, like a basketball. You just need change the size and/or weight of the ball. Your child should come to understand that a bigger, heavier ball would knock down the bottles much easier. \*This change has your child thinking about the mathematical concept of size and weight.
- b. Change the bottles to soup cans, or fill the bottles with water. Now it will be much harder to knock down the items with a smaller and/or lighter ball. Your child might have to roll the ball harder than before. Or maybe the bigger, heavier ball will be the only ball that works at knocking down the heavy soup cans. \*This change in targets has your child thinking about the mathematical concept of weight and force.
- c. Change the distance of where your child lines up to roll the ball. Let your child roll the ball from close up to the bottles and then attempt to roll the balls from a further distance. \*This change has your child working on the mathematical concept of distance.
- d. Change the arrangement of target items: vertical line, horizontal line, random placement, multiple lines, different spacing between target objects, etc.

\*Please Note: Remember to only change one of the items at a time. If you change both the balls and the targets at the same time, your child will get confused and won't fully understand the reasons why the bottles, for example, were easier to knock down.