



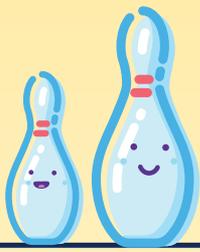
# STEM FAMILY ACTIVITIES

for independent learning



# BOTTLE BOWLING



Activity:	Optional Technology Connections:
<p>1. To do this exploration, you will need a small ball plus 10 water bottles (or soda bottles) filled about 1/3 with water. Set up the bottles like this picture. Stand 5 ft. away from the bottles. Roll the ball on the ground and try to knock over as many bottles as possible. Keep on playing! What do you notice? What happens when you push the ball softly or with more force?</p> 	<p>Read-aloud of the book "Mitchell Goes Bowling" <a href="http://tinyurl.com/Mitchellbowling">tinyurl.com/Mitchellbowling</a></p> 
<p>2. Try bowling on different surfaces such as the grass or cement outside or the carpet inside your house. What did you notice about playing on the different surfaces? Now move farther away from the bottles and play again. What do you notice?</p>	<p>Get ideas of different variables to test with your bowling exploration by watching this Crash Course Kids video, "Bowled Over" <a href="http://tinyurl.com/bowlingvariables">tinyurl.com/bowlingvariables</a></p>
<p>3. Have an adult write the numbers 1 through 10 on the bottles, each bottle getting one number. After taking a turn knocking over the bottles, add up the numbers on the bottles that fall down. Extension: Have a competition! Each person takes a turn to bowl and adds up the numbers on the bottles knocked down. Keep track of each person's score. Take turns until someone reaches 100 points.</p>	<p>Learn more about force and motion by playing Ruff Ruffman's "Fish Force" game. <a href="http://pbskids.org/ruff/sports/game">pbskids.org/ruff/sports/game</a></p> 
<p>4. Using items around your house, create a "ramp" that will move the ball faster towards your bottles. Design and test multiple ideas. Which one worked the best? Why?</p>	<p>Get the truck down the ramp in this online game (requires Adobe Flash Player) <a href="http://tinyurl.com/truckramp">tinyurl.com/truckramp</a></p>

Optional: Go to this link to print a "STEM journal" to record your observations and questions.  
[tinyurl.com/STEMjournal9](http://tinyurl.com/STEMjournal9)



**fresno county**  
superintendent of schools

For more resources or support, contact  
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or visit our website: [stem.fcoe.org](http://stem.fcoe.org)