

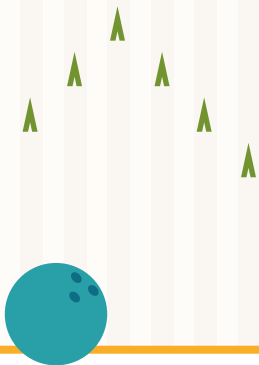
STRIKING *with* STEM!

Bowling field trips for all grade levels.

HANDS-ON LEARNING EXPERIENCE

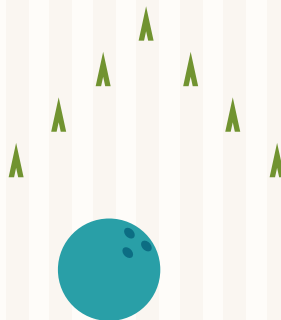
We all know bowling is fun, but did you know bowling can be educational too? Have you ever wondered what's inside a bowling ball, or how the lane oil affects ball motion?

Join us to explore Newton's Laws of Motion, the use of Force and Acceleration, and more!



EXERCISE THE MIND AND BODY

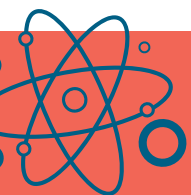
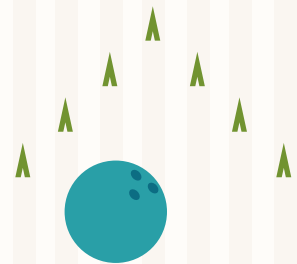
Bowling has many health benefits. It promotes balance and coordination, sustains hand and eye coordination, and builds strong bones. In just three games of bowling, you will walk the equivalent of one mile, and use 134 muscles in each four step approach to the lane! Last but not least, bowling burns up to 100 calories an hour!

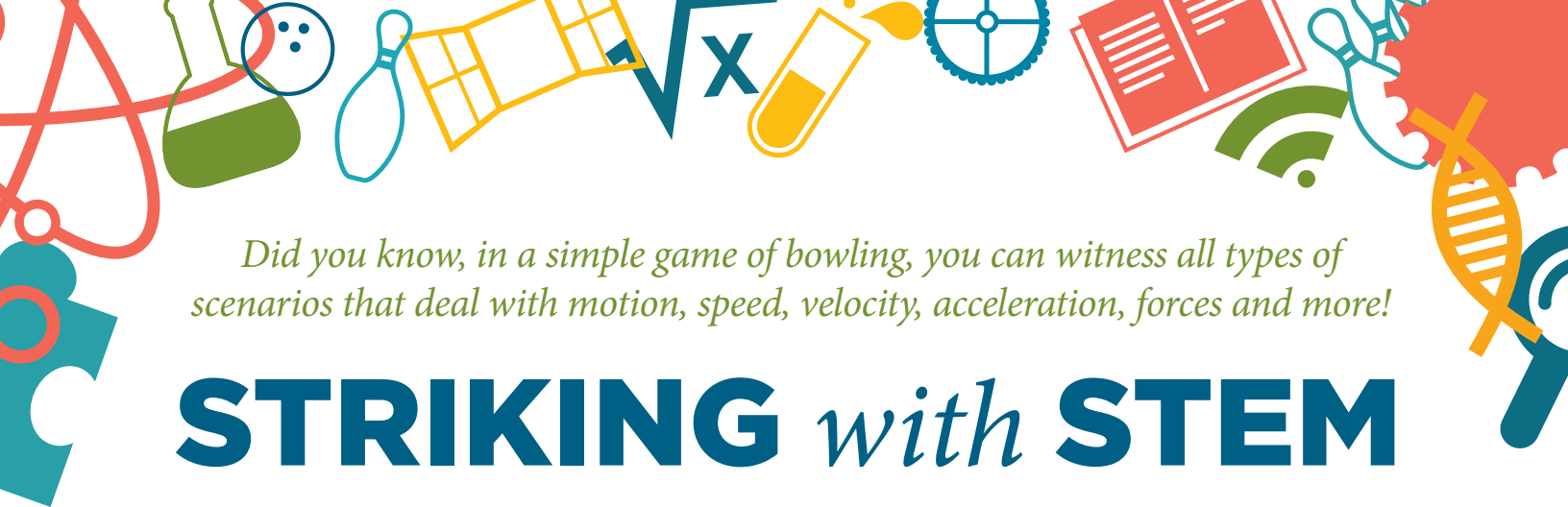


TAKE THE FUN BACK TO THE CLASSROOM

Can't get enough of Striking with STEM? Take home our Bowler's Ed curriculum!

This tool conforms with all NASPE standards for physical education, while providing lessons and activities to spark continued learning experiences in the classroom.





Did you know, in a simple game of bowling, you can witness all types of scenarios that deal with motion, speed, velocity, acceleration, forces and more!

STRIKING *with* STEM

LESSONS & ACTIVITIES

LESSON ONE SCIENCE OF THE BOWLING BALL

Students will learn what a bowling ball is made of and how different materials, design and layout can result in different ball motion.

Students will then design their best ball.

LESSON TWO LANE OIL AND WHY IT MATTERS

Lane oil was once used to protect wooden lanes. Today, it is used to make bowling more competitive.

Students will learn how the oil is used to make bowling more challenging and how different volumes, lengths and patterns affect ball motion.

LESSON THREE NEWTON'S LAWS... OF PIN ACTION!

We have all heard of Newton's Laws of Motion. Here, students will use their understanding of Newton's laws to determine the best way to knock down the most pins.

Students will test their theory on the lanes to see if they are correct.

LESSON FOUR MOMENTUM, MASS, AND VELOCITY

Which ball would knock down more pins? An 8-pound ball thrown at 20mph or a 16-pound ball thrown at 12mph?

Students will discover how different weights, when paired with the right velocity and momentum, create varied pin reaction.

LESSON FIVE POSITIVE EFFECTS ON MIND AND BODY

Students will explore the physical aspects to bowling, creating a better understanding of the different body parts and muscles that are utilized when throwing a bowling ball.

Strength, balance and timing will all be put to the test, as students explore the positive health benefits that come from bowling.

LESSON SIX LEARNING TO KEEP SCORE

On the surface, scoring a game of bowling can seem difficult. However, students will discover it is just a series of simple math equations.

As students bowl, they will learn when to use the appropriate math equation and be able determine their score throughout a game.

