High School science classes and clubs are invited to complete this project and present at STEM Night with the Iowa Wild, where they will be viewed by the public and assessed by medical students and guest judges. Each team will receive free tickets to the game with additional tickets available at $15 for friends and family.

THE PROJECT

Checking in ice hockey is one of a number of defensive techniques aimed at disrupting an opponent with possession of the puck or separating them from the puck entirely.

Which hurts more: Being body-checked in the middle of the ice or receiving a body check up against the boards? Ask any player — or physicist — and you’ll likely receive a unanimous answer: the boards. Rules against “boarding” are in place to protect players, and they’re based in physics and physiology.

YOUR ROLE

The Iowa Wild are interested in learning about STEM-based strategies for keeping players safe. You are a physicist commissioned by the Iowa Wild to educate players, coaches, support staff and fans on the importance of safety regulations, using data models of your own design. Your research will provide insights into the reasons behind the rules of the game.

YOUR GOAL

Explore the physics behind legal versus illegal checking, and the health impact of the most harmful hits. Design experiments that measure how much energy from a collision is converted from kinetic energy into a player’s body — potentially causing injury. Testing multiple collision types, demonstrate your knowledge of physics to make inferences about how mass and velocity play into hockey safety.

Working with a team, develop a project that analyzes the kinetic energy in various types of hockey hits. Pair this analysis with research regarding hockey injuries, prevention and treatment. Prepare a poster and brief verbal presentation that outlines your findings, why this knowledge is important and how it can be applied to improve hockey safety at any level. Translate your findings in a way that’s easy for anyone to understand.

THE PRIZE

The winning team will receive $1,000 toward STEM programming at their school and the opportunity to tour the Des Moines University Human Performance Lab!

REGISTER YOUR TEAM!

Contact Elizabeth Kramer of the Iowa Wild at 515-564-8726 or elizabeth.kramer@iowawild.com to register.