Paper Football

Explore the science of aerodynamics by playing this unique take on paper football. Encourage children to experiment with many different shapes to see how far they can flick their custom-made "footballs."

MATERIALS NEEDED

- Recyclables and other objects from around the home (straws, paper cups, cardboard tubes, etc.)
- Scissors
- Tape
- Paper

AT-HOME INSTRUCTIONS

1. Build two goal posts using objects found around the house.

2. Find a smooth, flat surface to use as the game field.

3. Fold sheets of paper into different shapes including triangles and squares, or try crumpling the paper into a ball.

4. Attempt to make field goals by flicking these newly created shapes through the goalposts.

5. Discover which paper shapes travel the farthest and highest!

EDUCATORS: USE THIS ACTIVITY IN THE CLASSROOM WITH THESE MODIFICATIONS!

Incorporate the power of teamwork by splitting students into multiple teams, having them work together to design and create "footballs" with different shapes and sizes. Encourage them to predict which of their designs will perform best, and then have them record their data. By organizing this game into multiple rounds, students will have the opportunity to engage in creative problem solving by improving on their designs over time.

WHAT ARE WE LEARNING?

In this activity, children explore the science behind projectile motion and experience firsthand how gravity causes a thrown, kicked or flicked object to fall in what's known as a parabolic arc. Additionally, students learn that geometry is everywhere – even in sports!

INSPIRATION

Become inspired by NIHF Inductee Beulah Louise Henry, a prolific inventor who created products ranging from an umbrella with interchangeable covers to a vacuum-sealed ice cream freezer. Did you know that Henry is also credited with inventing a valve for inflatable articles like footballs?

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