Get MOVING Wilder…
… and play MARBLE TARGETS

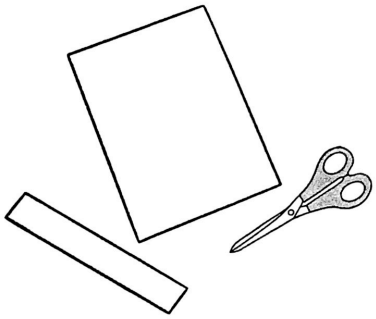
Can you control where a marble goes by hitting it with another marble?

This is best for two players.

Isaac Newton's 3rd Law of Motion: For every action (force) in nature there is an equal and opposite reaction. When the two marbles interact with each other, they exert opposite forces (energy) upon each other.

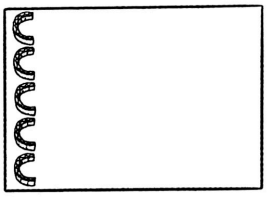
How to play

1. Put your piece of paper or thin cardboard on the flat surface.



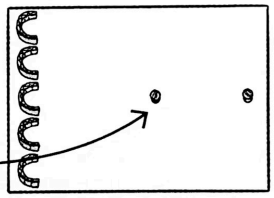
2. Measure and cut out five strips of cardboard, each about 5 cm (2 in) wide and 15 cm (6 in) long.

3. Bend the strips into curved shapes, and tape them to one end of your piece of paper in a row to make little targets.

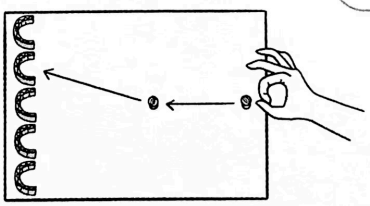


4. Now, draw two small circles on the paper, one in the middle and one at the empty end.

Put one marble in each circle.



5. To play a turn, ask the other player to pick one of the five targets. You have to flick the marble at the end so it hits the middle one and makes it hit the right target.

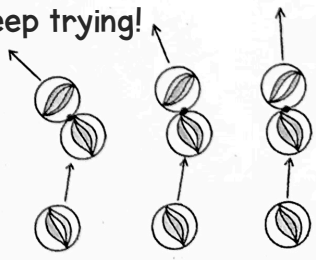


Take turns and see who can get the highest score!

What do you need?

- A flat, smooth surface, such as a dinner table
- Large piece of flat, smooth paper or thin cardboard
- Thick cardboard, such as an old packing box
- Ruler
- Scissors
- Tape
- Pen or pencil
- At least two marbles

It takes practice to get it right. Keep trying!



Game science

To make the middle marble go in the right direction, you have to hit it at the right angle. If you make the first marble glance off one side of it, it will push it in the opposite direction, like this.

Activity from: Claybourne, Anna. (2022). 79 amazing science games to blow your mind. Arcturus Publishing: London. 32.

Use QR code to learn more about Wilder's STEM Fair. Find link to register a Student Project. Email completed form to stem@wilderptsa.net OR turn in form to front office by 3/22.