

# Does the temperature of a soccer ball, tennis ball and a football affect how far you can kick it?

**AIM:** Our aim is to find out if the temperature of a ball affects how you can kick it.

**HYPOTHESIS:** We believe that the temperature will affect how far you can kick a ball because if it is frozen it will be heavier and slippery but if it is normal it will go further because it is light and dry.

## **EQUIPMENT:**

Tennis ball

Soccer ball

Football

Fridge

Grass field

Measuring tape

Minimum 3 people



## **METHOD:**

1. Place a room temperature soccer ball on the ground use your foot to kick the ball as far as you can.
2. Use a measuring tape, measure the distanced the ball has been kicked.
3. Take the soccer ball and place it in the freezer for one hour.
4. Remove the soccer ball from freezer and place back on the ground.
5. Use your foot to kick the ball as far as you can.
6. Use the measuring tape to measure the distance the frozen ball has been kicked.
7. Run the ball under warm water for two minutes.
8. Place the ball on the ground and use your foot to kick as far as you can.
9. With the measuring tape, measure how far the ball has travelled.
10. Repeat all the steps with all the different balls.

**CONCLUSION:** Our hypothesis was proven incorrect. Two out of three balls were kicked longer distances when they were cold. We believe this was because of the materials the two bigger balls were made from the tennis ball was kicked the furthest when it was normal. We believe this is because again of the material.

