

Do materials affect how high different balls bounce?

Aim

Our aim is to use all the balls we listed in the materials section and drop them from 2m 60cm and see how high they and how the materials affect the bounce.

Materials

- Soccer ball
- Rugby ball
- Handball
- Ping pong ball
- Tennis ball
- Basketball
- Measuring tape

Method

To conduct our experiment we dropped each of the balls listed above from the same height of 2m 60cm. After each drop, we measured using a tape measure how high the ball bounced. This was done by having 1 team member dropping the ball and another member at the bottom observing where the ball bounced.

Hypothesis

If a number of balls are dropped from 2.6 meters, then we predict the handball will bounce the highest because it's material is light and it is made of rubber.

Results

- Basketball 215cm
- Rugby ball 170cm
- Soccer ball 160cm
- handball 160cm
- Ping pong ball 90cm
- Tennis ball 140cm

Conclusion

The basketball bounced the highest because it is made of rubber which is bouncy and the ping pong ball bounced the lowest because it is made of plastic which is not bouncy at all. the ping pong ball bounced 125 cm less than the basketball.

Limitations

Some limitations included the balls were pumped to different amounts to each other and it was judged by the human eye.

What's next?

To investigate what surface makes a basketball bounce the highest.

