



Football Plays

Activity:

Compare a football with other kinds of sports balls; baseball, tennis ball, etc. Observe what happens when you throw them. Try throwing them straight up in the air and then a forward pass. Next try bouncing them on a hard surface (Not in your living room!) Also try catching them. Observe the differences.

Questions to ask:

What is different about the shape of a football?

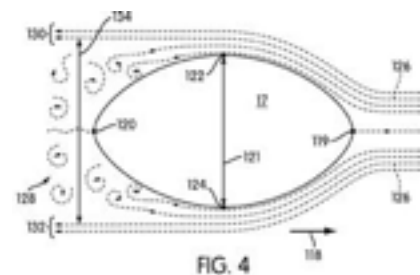
(It is not round, like the other balls. It is a "prolate spheroid". If you were to draw a basketball, you would draw a circle, but if you draw a football, you draw an ellipse, more of an egg shape.)

Why is it shaped that way?

(The first football was made from a pig's bladder, which is naturally shaped that way. Other balls, like soccer balls were also from animal parts, but later made into rubber and plastic.)

How does an ellipse travel through the air compared with a sphere?

(Try aiming a football and a tennis ball at a certain target. Is it easier to get the football to the target? The shape of the football makes it go through the air with less resistance.)



How does a football bounce differently than a tennis ball? Can you predict where the football will bounce?

(A sphere (round ball) will bounce back approximately the way you bounced it. A football is much more random on how it will bounce, which makes football games, especially fumbles so interesting!)

