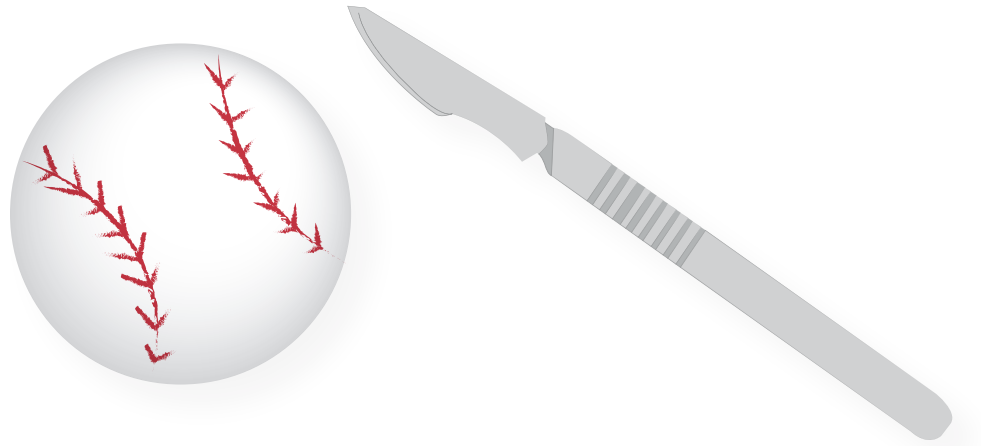


Baseball Dissection

Celebrate opening day by conducting an investigation of an official major league ball.

Collect

- Official major league baseball
- Sharp cutting tool
- Work gloves
- Paper and pencil
- Adult safety partner



Dissect it!

1. Put on the work gloves. With the guidance of an adult safety partner, use the sharp cutting tool to cut the red stitching surrounding the ball.
2. Peel back the white leather covering to reveal the next layer of the ball.
3. Use the paper and pencil to sketch and take notes about each layer as it is uncovered. What material is it made of? How thick is the layer? How does the ball bounce once the layer is removed?
4. Carefully remove each layer until the absolute core of the baseball has been reached.

Layers and layers and layers and mud!

The construction of the modern major league baseball is strictly regulated. Before the regulation of the baseball, each pitcher made their own ball. This led to more wild pitches and a great variation on how fast and far the ball could travel. In 1934, the National League and the American League compromised on a standardized baseball. Today, official baseballs have a circumference of between 9 and 9 1/4 inches and a total weight of 5 to 5 1/4 ounces.

Each ball has a rubberized cork center covered in two wrappings of yarn, followed by a special rubber cement coating, followed by another two wrappings of yarn, and completed with a white leather wrap held together by red raised stitching. The cork and rubber core is very bouncy, but the yarn wrapping around it reduces the elasticity of the ball, which cushions the bounce. The bouncier the ball, the farther it will travel when hit! All major league teams also coat every new ball in Lena Blackburne Baseball Rubbing Mud to cover the factory gloss. This mud provides the friction necessary for the pitcher to grip and throw the ball.