

Pre- Lab Questions

SWEET

Comparing Composite and Wooden Bats

1. What game is known as “America’s past time”? _____
2. Using a computer, define the term “polymer”. _____

3. What baseball team won the World Series 2007?

4. List two ways that we use polymers in our day to day lives.
A. _____
B. _____
5. What is the “sweet spot” of a baseball bat?

6. List two items that are made of polymers that are used in baseball aside from a bat and a ball.
A. _____
B. _____
7. What are composites, and how are they used in bats?

8. Who is currently the highest paid baseball player in the league (Still playing)?

9. Who is the oldest living baseball player?

10. Using the internet, what was the first (original) material used to strengthen wooden baseball bats?

Lab Activity

Comparing Composite and Wooden Bats

INTRODUCTION

Composites can be both natural and man-made structures. One example of a natural composite is wood which is made up of cellulose and lignin. Man-made composites consist of two or more substances being combined and making the new substance stronger than the original substances. An example would be concrete.

Today we will look at two different types of bats. One bat is made of wood and the other bat is made of what we call composites which contain polymers. In today's experiment, we will perform a simple experiment in order to test characteristics of the composite and wooden bats.

MATERIALS

Wooden Softball Bat
Softball
Any Composite Bat
Baseball Field

PROCEDURE

Set up a table depicting the two types of bats that will be used. Determine which baseball bat had more batter's sting (vibrations). Record from the batting which bat produced more sound once the bat and the ball collided. Then record which bat enabled the ball to travel the farthest when hit.

Team Member	Batter's Sting	Distance Traveled (meters)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

