## Sabal Palms

The sabal palm, also known as the sabal palmetto, has been the official tree of the state of South Carolina since the Revolutionary War. Sabal palms thrive in hot, humid weather and can survive drought conditions, needing less water than other species of trees. The bud of a sabal palm, known as heart of palm, can be eaten.

An image of a sabal palm can be seen on the South Carolina state seal.


## Your Project Explain the Processes

Have students research how tall the sabal palm can grow in meters. Imagine that you stacked 12 sabal palms on top of each other. What would be the combined height of the 12 sabal palms? Estimate the answer to the problem, and then solve the problem in 2 different ways. Present your work to the class. Show the steps you used to estimate the answer, and then demonstrate the 2 ways you solved the answer.


## Northern Mockingbird

Northern mockingbirds are the only type of mockingbird typically found in North America, specifically in Florida and Texas. The scientific name for this mockingbird is Mimus polyglottos, which means "many-tongued mimic" in Latin. It refers to the bird's ability to imitate many different sounds.


Northern mockingbirds eat both insects and fruit. These birds are usually found on the edges of forests, in grasslands, and some open areas.

## Your Project Write a Report About the Northern Mockingbird

Research the northern mockingbird. Find several number facts about the northern mockingbird that you find interesting. Then write a report using the facts to ask and answer questions involving multiplication.


## World Cup and Women's World Cup

The World Cup is a men's soccer tournament that is played every 4 years. Thirty-two teams representing countries from around the world compete against each other to win the cup. The first World Cup was played in 1930. There have been 21 World Cup tournaments since then, and as of 2017, Brazil has won more championships than any other country.

The Women's World Cup is a soccer tournament that also is played every 4 years. There are only 24 teams from around the world that compete in
 the tournament. The first Women's World Cup was played in 1991. There have been 7 Women's World Cup tournaments since then, and as of 2018 , the United States has won 3 championships, more than any other country.

## Your Project Create an Array Poster

Find the number of starting players on every soccer team and the number of teams that play in the Women's World Cup. Then use an array and partial products to find the total number of players on all of the teams.

Create a poster that shows the array you drew, the partial products you found, and the total number of starting players on the teams in the Women's World Cup. Present your work to the class.


## Shot Put

The shot put is a track-and-field event in which a shot, a heavy object shaped like a ball, is "put," or thrown with a pushing motion, from a circle on the field. The history of events like the shot put may go back as far as the Middle Ages, when soldiers competed to see how far they could throw cannonballs. The shot put has been part of the Olympics since 1896 for men and since 1948 for women. The mass of a shot for a male in competition is 7.26 kilograms (or 16 pounds). The mass of a shot for a woman competing is 4 kilograms (or 8 pounds).


## Your Project Compare Shot Masses

Balls used in different sports vary in weight. For example, the mass of a table tennis ball is about 3 grams, and the mass of a volleyball is about 280 grams. That is nearly 100 times heavier than the table tennis ball!

Research the mass of the balls used in some of your favorite sports. Record the masses in whole grams. On a poster display the masses you researched and display them in a table. Write 3-5 multiplication statements to compare the masses.


