

## Explore More—Gunpowder

**Directions:** Listen to your teacher talk about how the development of gunpowder helped sea exploration. Circle any words you don't understand. Underline or highlight important ideas in the text. Write notes in the margins to help you understand key points. Then answer the questions in your own words.

### What is gunpowder?

Gunpowder is a mixture of substances that can explode. Usually, gunpowder is made of potassium nitrate, coal, and sulfur.

### Who invented gunpowder?

The Chinese invented gunpowder during the Tang Dynasty (618-907). We don't know exactly who invented this explosive mixture. It is said that gunpowder was invented by accident. According to the traditional story, the inventor was trying to make a mixture that would allow people to live forever. Instead, the mixture blew up in the inventor's face. During the Tang Dynasty, gunpowder was used to make beautiful fireworks. Later, it was used in weapons.

### How did gunpowder help sea exploration?

Gunpowder was not used to power ships or to aid in navigation, but it helped Europeans explore faraway lands. How? Europeans used gunpowder in guns and cannons. These weapons allowed them to conquer ports in areas where they could establish outposts or bases. This meant that they could sail from their home country to one of their bases. Then they could rest and refit their ships and get supplies before sailing to a farther destination. Having these bases in key ports allowed them to explore the world. ❖

## YOUR TURN!

1. In this chapter, you learned about many technological developments that made sea exploration by latitude and longitude possible. The items you learned about are listed in the chart below. Explain how each item helped early sea exploration. Use the textbook and historical anthology to help you.

Item	How It Helped Sea Exploration
<b>COMPASS</b>	
<b>SEXTANT</b>	
<b>ASTROLABE</b>	
<b>SEAWORTHY SHIPS</b>	
<b>CHRONOMETERS</b>	
<b>GUNPOWDER</b>	