

La Belle in the Classroom

Lesson 2: Navigating to North America

Overview

Inaccurate maps and the inability to navigate caused La Salle to miss the mouth of the Mississippi River. During this lesson students will retrace La Salle's route to North America, compare navigational tools used in the past and present, and navigate a route using a compass.

TEKS

§113.15 – Social Studies, Grade 4
4.2A, 4.2B
4.19A, 4.19B, 4.19C
4.20A
4.21A, 4.21B, 4.21C, 4.21D
4.22

§112.15 – Science, Grade 4
4.3C
4.4

§113.19 – Social Studies, Grade 7
7.2B
7.19A
7.20A, 7.20B, 7.20C
7.22A, 7.22C

Objective

Students will:

- Compare navigational tools from the past and present.
- Follow directions to trace the route La Salle and his crew traveled from France to Matagorda Bay.
- Write and follow directions using a compass.

Materials

Navigation Tools and Instruments
Mapping La Salle's Voyage directions
Mapping La Salle's Voyage student map
Mapping La Salle's Voyage teacher map
red pencils
compasses

Online Resources

La Belle: The Ship That Changed History
<http://www.thestoryoftexas.com/la-belle>

La Belle: The Ship That Changed History Artifacts
<http://www.thestoryoftexas.com/la-belle/the-exhibit/artifacts>

Procedure

Key Terms

cardinal directions
navigate
compass
North America
France
route
Gulf of Mexico
Spain
map
voyage

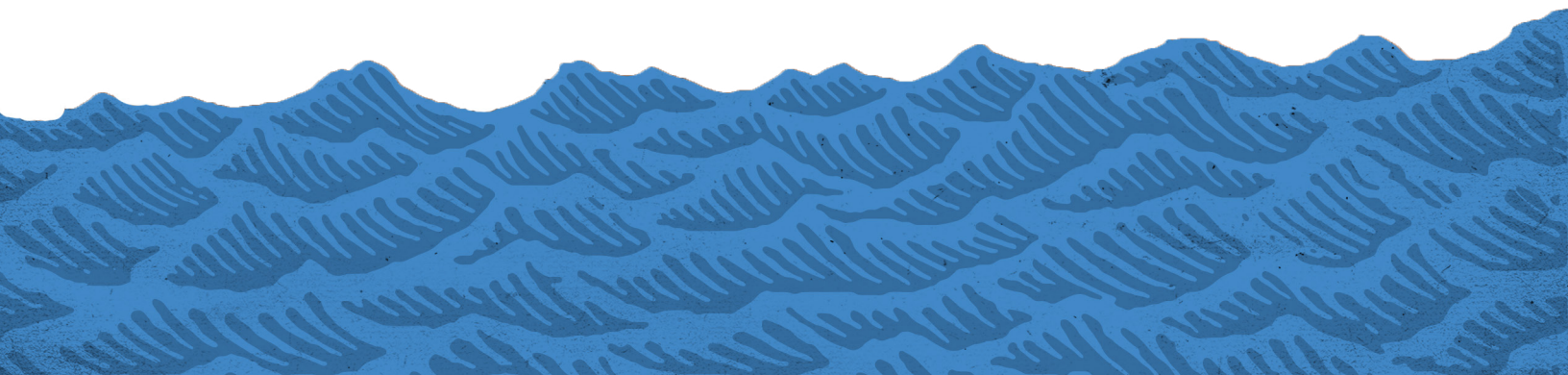
Engage Students: Compare Navigation Tools

1. Ask students if they have ever had to travel somewhere without knowing the directions. Discuss and list the tools that can help someone navigate such as GPS and maps.
2. Ask students to identify the tools they think La Salle would have used to navigate from France to North America. List students' responses.
3. Explain that scientists found navigation tools when *La Belle* was excavated. Show the *Navigation Tools and Instruments* images and descriptions. Ask and discuss:

- **Which tools do you think scientists found on *La Belle*?** Scientists found the nocturnal, brass compass, sand glass, and lead sounding weight. Even though the magnetic compass had been invented, scientists did not find one on *La Belle*.
- **Which tools do we use today?** Students may identify maps, magnetic compass, and GPS. Discuss where and how students have seen GPS used.
- **How would modern instruments have helped La Salle complete his mission to find the mouth of the Mississippi?** Modern instruments, such as GPS, would have helped La Salle to sail to the correct location to find the mouth of the Mississippi River. This could have changed the outcome of the expedition and France's claim on North America.

Explore Concepts: Trace La Salle's Route

1. Place students in groups of two. Give each group a copy of *Mapping La Salle's Voyage* map and directions.
2. Students follow the directions to trace the route La Salle took to find the mouth of the Mississippi River in 1664.
3. Groups share and compare their completed maps. Display *Mapping La Salle's Voyage* teacher map on the projector. Ask and discuss:



- **How accurate was your map?** Answers will vary.
- **How long did it take La Salle to travel from France to Matagorda Bay?** About seven months from July 24, 1684 to February 13, 1685.
- **What do you think it would be like to sail on a ship for seven months?** Students may suggest challenges that the crew and colonists would have faced such as disease, weather, and pirates.
- **What were other routes La Salle could have taken?** La Salle could have sailed to Canada and traveled down the Mississippi River.
- **What factors influenced the path La Salle's took?** La Salle had to be careful of weather, pirates and Spanish ships.

Extend Learning: Use a Compass to Navigate

1. Review the *Navigation Tools and Instruments* images. Ask and discuss what tool would be best to navigate the area around the school? Students may suggest a compass or GPS.
2. Tell students that they will work in groups to plan a path for another group to follow using a compass. Give each group a compass, and go outside to a large area to practice.
 - Use the compass to identify north, east, south, and west.
 - Select a landmark on the playground such as a tree or piece of playground equipment.
 - Ask students to identify the direction they must walk to reach the landmark.
 - Students walk and count the number of steps it takes to reach the landmark.
 - Practice navigating to several more locations.
3. Each group will plan a route for another group to follow.
 - Identify a start and end point.
 - Design a path from the start to the end that includes at least 4 changes of direction.
 - Walk the path and record the direction and number steps it takes to reach each point in the route.
 - Place a token at the destination to indicate that the group has found the correct location.
4. Groups switch written directions, follow the directions written for them, retrieve the token and draw a map to show the path from start to finish. Then, they should check with the group who created the map.
5. Discuss students' experiences. Ask and discuss:
 - **How accurate were the directions?** Students will find that their steps are different sizes. This affects the distance they traveled.
 - **How could you have made the directions more accurate?** Use GPS. Use latitude and longitude to find exact locations.

La Belle
The Ship That Changed History

Navigation Tools and Instruments



A **nocturnal** was used at night to calculate time. It's made of discs that contain a calendar, constellations, and compass degrees.



Magnetic compasses are used to show magnetic north. They display cardinal directions.



A **sandglass** was used to log the ship's speed, keep track of time, and anything that needed accurate timing.



GPS, or global positioning system, uses information from satellite signals to calculate position and time.



Lead sounding weights were used with a rope line to determine the depth of water.



A **brass compass** was used to draw on nautical charts and to calculate the distance between ports.



Maps show landforms, bodies of water, and details about a geographic area of the world.

Mapping La Salle's Voyage

Follow these directions to trace the route La Salle took from France to North America in 1684. Use a red pencil to mark the path.

Step	Directions
1	Start at La Rochelle, France.
2	Travel west above the northern coast of Spain.
3	Travel southwest near the western coast of Spain.
4	Travel southwest near the western coast of Africa.
5	After passing the Tropic of Cancer, travel west towards Haiti.
6	Travel along the northern coast of Haiti.
7	Pass between Haiti and Cuba.
8	Travel northwest along the southern coast of Cuba.
9	Travel through the Gulf of Mexico to the coast of Louisiana.
10	Travel west along the Texas coast to Matagorda Bay.
11	Stop at Matagorda Bay. Make an X to mark the location.



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Mapping La Salle's Voyage



KEY

Mapping La Salle's Voyage

La Salle sailed southwest from France, using the energy from the trade winds. La Salle sailed to the Caribbean Islands and then Northwest across the Gulf of Mexico. La Salle missed the mouth of the Mississippi River by 400 miles.

