



# Exploration Innovation

## European Exploration and Navigational Tools



Laura Halstied

Published by K20 Center

*This work is licensed under a [Creative Commons CC BY-SA 4.0 License](https://creativecommons.org/licenses/by-sa/4.0/)*

<b>Grade Level</b>	10th Grade	<b>Time Frame</b>	90 minutes
<b>Subject</b>	Social Studies	<b>Duration</b>	1-2 class period(s)
<b>Course</b>	World History		

### Essential Question

What technological advancements paved the way for increased European exploration?

### Summary

In this lesson, students will explore the technology used by European explorers during the Age of Exploration. Through analyzing images, watching a video, and selecting an activity from a Choice Board, students will learn about four navigational tools and how this new technology influenced European exploration.

### Snapshot

#### Engage

Students read three statements about the Age of Exploration and use the Fiction in the Facts strategy to decide which statement is false.

#### Explore

Students view images of four navigational tools and make observations and inferences.

#### Explain

Students watch a video about the navigational tools and fill out a graphic organizer.

#### Extend

Students select an activity from a Choice Board to extend their learning.

#### Evaluate

Students complete an Exit Ticket to demonstrate their understanding.

## Standards

*ACT College and Career Readiness Standards - Reading (6-12)*

**CLR301:** Locate simple details at the sentence and paragraph level in somewhat challenging passages

*ACT College and Career Readiness Standards - Writing (6-12)*

**I&A 301:** Understanding the task and writing with purpose. A score in this range indicates that the writer is able to: -Generate a somewhat clear thesis that establishes a perspective on a contemporary issue - Respond to other perspectives on the issue

**D&S 301:** Building and strengthening the argument. A score in this range indicates that the writer is able to: -Make use of mostly relevant reasoning and examples to support the thesis and arrive at a general or simplistic understanding of the issue -Offer a rationale that largely clarifies the argument -Provide elaboration of ideas and analysis that is somewhat repetitive or imprecise

*Oklahoma Academic Standards (Social Studies: World History (9th through 12th grade))*

**WH.2.3:** Analyze migration, settlement patterns, cultural diffusion, and the transformations caused by the competition for resources among European nations during the Age of Exploration.

## Attachments

- [Choice-Board-Exploration-Innovation - Spanish.docx](#)
- [Choice-Board-Exploration-Innovation - Spanish.pdf](#)
- [Choice-Board-Exploration-Innovation.docx](#)
- [Choice-Board-Exploration-Innovation.pdf](#)
- [Lesson-Slides-Exploration-Innovation.pptx](#)
- [Painting-a-Picture-Chart-Example-Exploration-Innovation - Spanish.docx](#)
- [Painting-a-Picture-Chart-Example-Exploration-Innovation - Spanish.pdf](#)
- [Painting-a-Picture-Chart-Example-Exploration-Innovation.docx](#)
- [Painting-a-Picture-Chart-Example-Exploration-Innovation.pdf](#)
- [Painting-a-Picture-Chart-Exploration-Innovation - Spanish.docx](#)
- [Painting-a-Picture-Chart-Exploration-Innovation - Spanish.pdf](#)
- [Painting-a-Picture-Chart-Exploration-Innovation.docx](#)
- [Painting-a-Picture-Chart-Exploration-Innovation.pdf](#)
- [Painting-a-Picture-Image-Packet-Exploration-Innovation - Spanish.docx](#)
- [Painting-a-Picture-Image-Packet-Exploration-Innovation - Spanish.pdf](#)
- [Painting-a-Picture-Image-Packet-Exploration-Innovation.docx](#)
- [Painting-a-Picture-Image-Packet-Exploration-Innovation.pdf](#)
- [TIP-Chart-Exploration-Innovation - Spanish.docx](#)
- [TIP-Chart-Exploration-Innovation - Spanish.pdf](#)
- [TIP-Chart-Exploration-Innovation.docx](#)
- [TIP-Chart-Exploration-Innovation.pdf](#)
- [Website-Resource-List-Exploration-Innovation - Spanish.docx](#)
- [Website-Resource-List-Exploration-Innovation - Spanish.pdf](#)
- [Website-Resource-List-Exploration-Innovation.docx](#)
- [Website-Resource-List-Exploration-Innovation.pdf](#)

## Materials

- Lesson Slides (attached)
- Painting a Picture: Image Packet (attached; one per group or class)
- Painting a Picture: Chart handout (attached; one per student)
- Painting a Picture: Chart Example (attached; for teacher use)
- TIP Chart handout (attached; one per student)
- Choice Board handout (attached; one per student)

- Website Resource List (attached; one per student)
- Pencils
- Paper
- Student devices with internet access (optional; for use in Extend activity)

5 minutes

## Engage

### Teacher's Note: Lesson Preparation

Before beginning this lesson, print out the attached **Painting a Picture: Image Packet**. Hang up the four sets of images around the classroom for use during the Explore portion of the lesson.

Alternatively, you may choose to have students analyze the image sets in small groups during the Explore portion. In this case, print enough copies to provide one image packet per group.

The four sets of images also are included in the attached **Lesson Slides** for students to view during the lesson.

Use the attached **Lesson Slides** to guide the lesson. Display **slide 3** to introduce the essential question and go to **slide 4** to share the lesson's learning objective. Review these slides with students to the extent you feel necessary.

Go to **slide 5**, which contains three statements about the Age of Exploration. Inform students that two statements are true and one statement is false. Ask students to use the [Fiction in the Facts](#) strategy to decide which statement is false.

Give students time to read the three statements and discuss their thoughts with nearby classmates. Then, ask for volunteers to share which statement they think is false.

### Optional Technology Integration

You may use Mentimeter to have students submit their responses. Learn how to create a [Mentimeter](#) here.

After a class discussion, go to **slide 6** to confirm with students which statements are true and which one is false. Let students know that the rest of the lesson is about the technology that paved the way for increased European exploration.

20 minutes

## Explore

For this portion of the lesson, inform students that their task is to analyze four navigational tools that European explorers used during the Age of Exploration.

Display **slide 7** and introduce students to the [Painting a Picture](#) strategy. Explain that students should make observations about four sets of images, then use their observations plus their prior knowledge to make inferences about the content. In this case, students should use their observations to figuratively “paint a picture” of what the navigational tools are and how they might’ve been used by European explorers.

At this point, if you have chosen not to hang up the image sets around the room, you may pass out the attached **Painting a Picture: Image Packet** to each small group. Alternatively, you may transition through **slides 8-11** and have students view the image sets on each slide.

Pass out the attached **Painting a Picture: Chart** handout to each student. If you are using slides 8-11, pause on each image set and allow time for students to record their observations and inferences. Students should work individually to fill out their charts.

After students have finished, ask them to keep their charts on hand for use later in the lesson.

### Possible Student Responses

If you would like to view an example of how students should fill out their charts, see the attached **Painting a Picture: Chart Example**.

15 minutes

## Explain

Display **slide 12** and pass out the attached **TIP Chart** handout to each student. Then, let students know that they should use the [TIP Chart](#) strategy to take notes on the following video. As students watch, they should write information from the video in the second column and draw a picture of each navigational tool in the third column.

Go to **slide 13** to show students the video, titled "[Navigation Tools During the Age of Exploration](#)." Consider pausing the video after each tool is described to give students ample time to complete that row in the chart.

### Embedded video

<https://youtube.com/watch?v=pD04eYrflZ0>

After students have watched the video and filled out their TIP charts, have them revisit their Painting a Picture charts from the Explore portion of the lesson. Ask students to pair up and discuss which of their inferences were correct and which were incorrect.

Go to **slide 14** and bring the class back together. Use the guiding questions on the slide to have a whole-class discussion about the introduction of navigational technology from outside of Europe and how it was used for exploration. Ask students to reflect and share their thoughts on how European explorers' use of these tools affected the world.

30 minutes

## Extend

Pass out the attached **Choice Board** handout to each student. Explain to students that using a [Choice Board](#) allows them to choose how to demonstrate their learning.

Display **slide 15** to review the activity options. If students have access to internet-connected devices, pass out the attached **Website Resource List** to provide each student with a list of websites they can use to research their chosen tool.

Give students plenty of time to complete their chosen activities. If desired, you may allow students to work in pairs.

5 minutes

## Evaluate

To evaluate students' learning, display **slide 16** and have each student complete an [Exit Ticket](#) in response to the following question: *How did the arrival of new technology influence European exploration?*

Ask students to write their responses on notebook paper and turn in their sheets before leaving class.

### Possible Student Responses

1. European explorers used new technology to explore lands that were previously unknown to Europe.
2. Navigational technology enabled European explorers to take longer ocean voyages, which brought them to many places they had not been before.
3. The arrival of new technology helped European explorers travel to other continents, where many European countries established colonies.

To further assess students' understanding, you may choose to collect students' completed TIP charts and Choice Board activities in addition to the Exit Ticket responses.

## Resources

- Bicanski. (2019). Antique, compass, geography, history, map, navigation, instrument, exploration [Image]. <https://pixnio.com/objects/antique-compass-geography-history-map-navigation-instrument-exploration#>
- K20 Center. (n.d.). Bell Ringers and Exit Tickets. Strategies. <https://learn.k20center.ou.edu/strategy/125>
- K20 Center. (n.d.). Choice Boards. Strategies. <https://learn.k20center.ou.edu/strategy/73>
- K20 Center. (n.d.). Fiction in the Facts. Strategies. <https://learn.k20center.ou.edu/strategy/60>
- K20 Center. (2021). Navigation tools during the Age of Exploration [Video]. YouTube. <https://www.youtube.com/watch?v=pD04eYrflZ0>
- K20 Center. (n.d.). Painting a Picture. Strategies. <https://learn.k20center.ou.edu/strategy/1331>
- K20 Center. (n.d.). TIP Chart. Strategies. <https://learn.k20center.ou.edu/strategy/185>