

Teacher's Guide: The Columbian Exchange

Recommended Grade Level: 5-8

(also applicable to grades 9-12 for students requiring significant support in learning)

Suggested Time: About 50-60 minutes spread over one or more class periods, plus additional time to complete a writing assignment

Goals

Following are the big ideas that students should take away after completing this lesson:

- The Columbian Exchange of plants and animals changed the world.
- The Columbian Exchange had positive and negative effects on the world.

Vocabulary

(See definitions on page 6.)

- Columbian
- exchange
- continent
- import
- native

Key Literacy Strategies

Following are the primary literacy strategies students will use to complete this activity:

- Determining important information (screens 4, 6, and 7)
- Making connections (screen 8)
- Categorizing basic facts and ideas (screen 10)
- Constructing summaries (writing assignments 1 and 2)
- Making inferences (writing assignment 2)

Note: In addition to the key literacy strategies listed above, students will also use each of these strategies to complete this lesson:

- Monitoring comprehension
- Synthesizing
- Making predictions
- Developing vocabulary
- Developing a topic in writing
- Identifying and using text features (photographs, captions, diagrams, and/or maps)

Overview

The Columbian Exchange is a student-directed learning experience. However, while students are expected to work through the lesson on their own, teachers should be available to keep the lesson on track, organize groupings, facilitate discussions, answer questions, and ensure that students meet all learning goals.

The following is a summary of the lesson screens:

- Screen 1: Students think about how connected people around the world are today because of various forms of communication and the ease of travel. Then they think about how isolated the Americas were from the rest of the world before Columbus, and the consequences of his exploration connecting the Americas to Europe and Africa.
- Screen 2: Students read a brief description of the exchange of plants and animals that began with Columbus and his men and study the origin of the phrase “Columbian Exchange.”
- Screen 3: Students learn what the goals are for the lesson, which strategies they will be using to complete the lesson, and the important vocabulary words they will use during the lesson.
- Screen 4: Students watch a video about the beginning of the Columbian Exchange. After watching the video, they write lists of plants and animals brought to the Americas, and plants that were taken from the Americas and brought to Europe and then to the rest of the world.
- Screen 5: Students read about the importance of the horse to the Americas once it was introduced from Europe. Then they watch a video that describes the impact of the horse on American life.
- Screen 6: Students read about the negative impact of the Exchange that came in the form of European diseases introduced to Americans, who had no immunity to them. Then they watch a video about the introduction of American potatoes to Europe and on the effect of the potato blight later on, especially in Ireland. They then write about how the potato both helped and hurt the Irish people.
- Screen 7: Students answer three multiple-choice questions to show their comprehension of the Columbian Exchange and its consequences.
- Screen 8: Students read a PDF text describing how plants and animals that were imported as part of the Exchange are now seen as native plants and animals in their new homes. They also consider humans as part of the Exchange. Then they write about which facts in the text surprised them most.
- Screen 9: Students complete an interactive vocabulary activity, and then choose two words from the vocabulary list and write a new sentence for each word. These tasks demonstrate their understanding of the meanings of the words.
- Screen 10: Students use an interactive activity to sort items into four columns: plants brought to the Americas from Europe, plants brought to Europe from the Americas, animals brought to the Americas from Europe, and animals brought to Europe from the Americas.

Final

Assignment: Students select and complete a writing assignment about the lesson topic.

Before the Lesson

- ❑ Go through each screen of the lesson, including all the interactive activities, so that you can experience ahead of time what students will be doing. As you go through each screen, jot down your own expectations for students' responses.
- ❑ Determine if students will be working individually or in pairs on the lesson. Some students may be able to work independently with little or no support. Students who are less familiar with the subject area or who struggle with literacy skills may benefit from working with another student. An effective way to do this is to pair a stronger student with a less able reader. You can also have students work individually on certain tasks and in pairs on others, depending on their experience and needs. If students will be working in pairs on any portion of the lesson, let them know if they will be expected to type in their notes individually or together.
- ❑ Provide instruction on key vocabulary (vocabulary words are defined in the lesson on screen 3, and on page 6 of this guide).
- ❑ Determine what students already know about Columbus and the impact of the arrival of Europeans in the Americas in 1492 and afterward. (You may want to provide some specific questions to start the discussion: Who was Columbus? Where did he land on his explorations? What did he bring to the Americas? What did he take back to Europe from the Americas?) Record their ideas on a chart, highlighting the words that describe the Americas, Europe, or Columbus and his men. This will give you a sense of the background knowledge and possible misconceptions that students have before beginning this lesson. If time allows, return to the chart after students have completed the lesson to add new learning and correct misconceptions. Note: You may want to record their new learning in a different-colored ink so they can see how much they've learned.
- ❑ Arrange computers with Internet access so students can work individually or in pairs.
- ❑ Before students begin, suggest a timeline for completing the lesson, mention the different types of media they will encounter, and let them know how you expect them to submit their work. You may want to provide an outline of this information on a chart, chalkboard, or whiteboard, or as a handout.

Lesson Assessments

The following are descriptions of the lesson features that will be part of the packet of materials that students will submit. Students will use the packet for reference when writing their final assignment. It also serves as a formative assessment tool to monitor students' work as they are progressing through the lesson.

- **Notes** - Students write their ideas in response to a prompt on screens 4, 6, and 8. If time allows, review their notes before students begin their writing assignment.
- **Multiple-choice questions** - Students complete the three questions on screen 7. Walk around to make sure students answer all three questions before they continue. If students click to go to the next page before they finish, their work will not be saved.

- **Match It!** - Students complete an interactive vocabulary activity on screen 9. They begin by dragging the vocabulary terms into the correct sentences. After they finish and save their work, they will be able to check their answers against an answer key. When they are done, they will be asked to choose two vocabulary words and write a new sentence for each word. Sentences should demonstrate a clear understanding of the meaning of each word. An inappropriate response would be “There was an exchange.” An appropriate response would be “There was an exchange of plants and animals between the Americas and Europe.”

- **Arrange It!** -Students complete the interactive comprehension activity Arrange It! on screen 11. Students will not be able to check their answers online, so you will need to provide them with correct answers when they are finished with the lesson. You can choose to review the answers as a class or return the corrected packet of materials to students before they begin the final assignment. Students determine in which of four categories to place descriptions of plants and animals.

Category: Plants brought to the Americas from Europe

Answers: bananas, coffee, apples, sugar

Category: Plants brought to Europe from the Americas

Answers: cocoa, tomatoes, tobacco, corn

Category: Animals brought to the Americas from Europe

Answers: sheep, chickens, dogs, horses, cows, cats

Category: Animals brought to Europe from the Americas

Answers: Canada geese, grey squirrels, red foxes

- **Final Assignment** - Students complete one final writing assignment. You can choose to let students make their own selection or assign one according to your goals for the lesson. Use the rubric on page 7 to assess the writing assignments.

Lesson Aids and Extensions

Use the following suggestions to help students if they are stuck on a particular screen, to prepare students for completing their writing assignments, or as follow-up discussions to reinforce learning.

- **Watching Videos** - Encourage students to watch the videos more than once. After the initial viewing, provide students with a specific content focus to frame their next viewing(s) of the video. This will help them draw connections between the main topic and the information that the videos have to offer.
- **Participating in Discussions** - Organize class discussions or encourage students to talk about their questions in pairs. You may want to use the following discussion starters:
 - o Why were the Americas not part of an exchange before Columbus among Europe, Africa, and Asia?
 - o What animals or foods do you think of as American that are really from Europe, Asia, or Africa?

- o What is a food or animal you know about that is popular in another country but not found in the United States?

- o How did Columbus's explorations change the world?

- **Reading the PDF Text** - Before they read the PDF text on screen 8, ask students to list their favorite foods and where they think they come from.
- **Sharing Student Work** - It may be motivational, and a further learning opportunity, for students to post their final essays so that their classmates, peers, and/or parents can see them. This may also provide an opportunity for students to comment on and discuss each other's essays.

If you do not already have access to an online writing community, Teaching Matters™ provides TeXT, free classroom publishing tools that allow teachers and students to create and publish their own online eZine. More information and a free sign up are available at Teaching Matters: TeXT (<http://text.teachingmatters.org>).

- **Reflection and Self-Assessment** - After students have turned in their writing assignments, you can choose to have them assess their learning. Bring students together as a whole class or in small groups to discuss the questions below. You may want to return to the chart of their ideas developed before the lesson and record their new learning. You may also have students respond individually to the questions and then convene the class to discuss the chart.
 - o What did you learn?
 - o What was surprising?
 - o What questions do you still have?
 - o What was the easiest for you to understand and do?
 - o What was the most difficult?

Vocabulary Definitions

Columbian

Related to the explorer Columbus and his journeys to the Americas beginning in 1492.

exchange

Giving people things and getting things back from them in return, on purpose or by accident.

continent

One of several large land areas. Earth's total land area is divided into seven continents: Africa, Antarctica, Asia, Australia, Europe, North America, and South America.

import

To bring things into one place from another.

native

Describes living things, such as plants and animals, that grow or live in a certain place or region, and were not brought in from another place.

Final Assignment Rubric The Columbian Exchange

1. The Atlantic Ocean once kept the Americas separated from the rest of the world. After Columbus, the ocean was like a highway connecting the Americas to Europe, Asia, and Africa. What was exchanged? How did the Columbian Exchange change life for people on these continents? Use at least three examples to support your ideas.
2. Describe some of the long-term effects of the Columbian Exchange. Explain which effects you consider positive and which you consider negative, and why. Use at least three examples to support your ideas.

4	3	2	1
<p>Provides a clear and accurate response to the question. Ideas are elaborated, with three or more relevant supporting details from the reading passage, video, and other materials in the lesson.</p>	<p>Provides an adequate response to the question. Topic and ideas are generally well organized, with two relevant supporting details from the reading passage, video, and other materials in the lesson.</p>	<p>Provides a generally accurate response, with one supporting detail from the reading passage, video, and other materials in the lesson.</p>	<p>Provides an inaccurate response to the question or fails to address the question. May include misinterpretations. Understanding of the topic is not apparent.</p>
<p>Uses at least three vocabulary words (or a form of the vocabulary words) from the lesson, and uses them all correctly.</p>	<p>Uses two vocabulary words (or a form of the vocabulary words) from the lesson, and uses them both correctly.</p>	<p>Uses one vocabulary word (or a form of the vocabulary word) from the lesson, and uses it correctly.</p>	<p>Does not use any vocabulary words, or uses vocabulary words incorrectly.</p>

Scoring the Rubric

Here are two suggestions for scoring the final assignment rubric. Select the option that best meets your needs or develop your own grading system.

Option 1: This option provides one score for each submitted assignment.

Assign a score of 4 or below for the written response (first row of the rubric) and a score of 4 or below for the use of vocabulary (second row of the rubric), for a total maximum score of 8. The interpretation of scores is as follows:

Score	Grade	Narrative Interpretation
7-8	A	Excellent
5-6	B	Good
4	C	Adequate (Fair)
3 or below	D	Minimal

Option 2: This option provides two scores for each submitted assignment: one for written content and one for the use of key vocabulary. An advantage of separate scores is that you can weight students' comprehension and composition differently than you do their knowledge of vocabulary. It can also help you identify specific needs for future instruction.

Assign a score of 4 or below for the written response (first row of the rubric) and a score of 4 or below for the use of vocabulary (second row of the rubric) and then score them separately. The interpretation of scores is as follows:

Score	Grade	Narrative Interpretation
4	A	Excellent
3	B	Good
2	C	Adequate (Fair)
1	D	Minimal

The final grade may look like this: A/B (A for content and B for vocabulary use).