

Learning Through History

Focus: Columbus Discovers America

Unit 1 - Day 1

Reading About History



Read about history in the following resource:

★ *A First Book in American History*
Chapter I: p. 1-3

Key Idea: Columbus believed the Earth was round. He wanted to find a faster route to get to China in Asia. Columbus believed he could reach China by sailing west across the Atlantic Ocean. This was a brave, new idea.



Geography

Say, *A globe is a model of the Earth. It is much smaller than the Earth, but it is the same shape as the Earth. The Earth is made up of land and water. The land consists of seven continents. What is a continent?* (A large body of land surrounded by water.)

Say, *Find North America. Trace the outline of it with your finger. Repeat this tracing activity with South America, Africa, Australia, Europe, Asia, and Antarctica.*

Ask, *On which continent is Portugal found? (Europe) Which continent did Columbus want to reach by sailing from Portugal across the Atlantic Ocean? (Asia) Which continents were in Columbus' way of reaching China by sailing west? (North America and South America) Do you think the explorers in Columbus' time knew there were seven continents? Why, or why not? How many oceans are there in the world? Outline the four oceans with your finger. Have students outline the Pacific, Atlantic, Indian, and Arctic Oceans. Ask, Which ocean is the largest? (Pacific Ocean) Do you think the explorers in Columbus' time knew there were four oceans? Why, or why not? What would it be like to sail away on an ocean if you didn't know the size of it or the distance to land?*

Key Idea: Maps in Columbus' time looked very different from the maps we have now. Explorers were still learning about the Earth, so maps were not accurate.

Poetry



Read aloud the poem "*Four by the Clock*" (see Appendix) to the students. After reading the poem, point out the special words defined at the bottom of the poem. Discuss any other words in the poem that the students may not know. Read the poem again with the students.

Copywork: You may choose to have students copy part of the poem for this unit each day.

Key Idea: Read and appreciate a variety of classic poetry.



Bible Study

Say, *In this unit, you will be studying the character trait persistence. Look up the word 'persistent' in a dictionary. What does it mean to be persistent? Find Proverbs 2:3-5 in your Bible. This is the memory selection for this unit. Read the verses out loud. Ask, In Proverbs 2:3, who are you supposed to ask for insight and understanding? How does Proverbs 2:3 say you should ask God for these things? Why would it take persistence to look for silver or search for hidden treasure? If you are persistent in calling out to God, what does Proverbs 2:5 say you will find? Does everyone find the knowledge of God? Why, or why not? Say the verses together 3 times. Add hand motions to help students remember the words.*

Key Idea: Columbus went to Portugal to persistently pursue his dream of finding a new route to Asia.



Corresponding Music

Hymns for a Kid's Heart: Vol. One, Track 1
Song Title: "*Holy, Holy, Holy*"
Read p. 15-16 and sing verse 1 on p 18.

Learning the Basics

Focus: Language Arts, Math, and Science

Unit 1 - Day 1



Language Arts

Have students complete **one** of the cursive handwriting options below.

- ★ *Cheerful Cursive* p.1 or *Italic D* half of p. 2

Complete **one** of the English options below.

- ★ *English 2*: Unit 1 - Lesson 1
- ★ *English 3*: Unit 1 - Lesson 1

Choose **either** the Unit 1 spelling list **or** the first dictation passage (see Appendix for lists and passages). If you choose the spelling list, write each spelling word on a separate index card. Guide students to study each card one at a time, flip it over, write the word from memory on paper, flip the card back over to check the spelling, and erase and correct any mistakes. If you choose dictation, follow the directions in the Appendix for dictation.

Key Idea: Practice language arts skills.



Storytime

Choose at least one biography to read aloud for the next 20 days of plans (see Appendix for suggested titles). To introduce the genre, *Biography*, have students take turns finishing the following sentences: *My favorite thing to do is _____. I felt nervous when _____. I am looking forward to _____. I wonder about _____.* Say, *A biography is a true story of a person's life written by another person. Just like we learned about you as you shared about yourself, we can learn about others by reading about their lives.* Read a portion of the biography you chose.

Key Idea: Introduce the genre: *Biography*.



Math Exploration

From two decks of playing cards, use all of the 10's and one set of cards numbered '2' – '9'. Fold a piece of paper in half. Label the left half 'tens' and the right half 'ones'. Place three 10's cards on the 'tens' side and one '4' card on the 'ones' side. Ask students to count by 10's ('10', '20', '30'). Point to the '4' and say, '*30 and 4 makes 34. 4 more than 30 is 34.*' Direct students to write a number sentence on markerboard or paper to describe their total (3 tens + 4 ones = 34 or 30 + 4 = 34). Repeat the activity with different numbers of 'tens' and 'ones'.

✓ Text Connection: *Primary Mathematics Workbook 2A* p. 7-8

Key Idea: Form 2-digit numbers.

Reading Choices



Choose **one** of the reading options listed below (see Appendix for details).

- ★ *Scheduled Books for Emerging Readers*
- ★ *Drawn into the Heart of Reading Level 2/3*

Key Idea: Use a step-by-step program for reading instruction.



Science Exploration

- ★ Read *One Small Square: Seashore*, Introduction and p. 6-7.

Have your students orally narrate or retell the portion of today's text that was read. Use the *Narration Tips* in the Appendix as needed.

Key Idea: The sea covers almost $\frac{3}{4}$ of the Earth's surface. The seashore is home to many kinds of plants and animals. The tides make the seashore an exciting and difficult place to live.

Learning Through History

Focus: Columbus Discovers America

Unit 1 - Day 2

Reading About History



Read about history in the following resource:

★ *A First Book in American History*
Chapter I: p. 4-6

Key Idea: When the King of Portugal refused Columbus' plan, Columbus went to Spain to share his ideas with King Ferdinand and Queen Isabella. But, they were too busy with a war in Spain. Columbus was running out of time and money. Finally, Queen Isabella agreed to his terms.



Artistic Expression

Give each student a piece of painting paper. Have students place their papers horizontally in front of them. Say, *In the middle of the paper, draw a wavy line to be an ocean wave. Next, draw another wavy line above the first one. The area nearest the bottom of the paper is called the foreground. The next layer of waves is in the middle ground of your landscape. The sky nearest the top of your paper is in the background.* Next, place a small amount of blue paint in 3 different spots on a paper plate or a paint palette. Help students add a small amount of red paint in varying amounts to create 3 shades of purple. Tell students to use the 2 lightest shades of purple to paint the waves in the foreground and the darkest purple to paint the waves in the middle ground. Help students mix blue and white paints for the sky in the background. Guide students to paint the sky with a swirling motion to show moving clouds and changing weather. Last, have students add a little black paint to the dark purple and use the new color to outline the waves in the middle ground.

Key Idea: Columbus was finally going to sail across the ocean in search of a new route to Asia. His ships would be sailing where no ship had gone before.

Poetry



Read aloud with the students the poem "Four by the Clock" (see Appendix). Discuss the poem's meaning. Ask, *Why do you think the poem is titled "Four by the Clock"? Is it four A.M. or four P.M. in the poem? How do you know? What does "the heavy breathing of the sea" mean?*

Key Idea: Read and appreciate a variety of classic poetry.



Bible Study

Say Proverbs 2:3-5 while the students join in on the parts they know. Use the hand motions you added on Day 1. Say, *What does it mean to be persistent? Name something that you have done that was very hard for you. How did persistence help you get the job done? What would have happened if you had given up? How did you feel once you finished the job? Why is it important to be persistent in praying, reading the Bible, and going to church? What would happen if you gave up? How can you be more persistent in doing things that honor God?* Next, have the students do 10-20 jumping jacks. After the jumping jacks, have the students recite Proverbs 2:3-5. Prompt the students as needed. Repeat the activity several times.

Key Idea: Columbus persisted in his dream to find a new way to Asia. He had many disappointments and long years of waiting before Queen Isabella of Spain finally agreed to pay for his journey. Columbus didn't give up.



Corresponding Music

Hymns for a Kid's Heart: Vol. One, Track 1
Song Title: "Holy, Holy, Holy"
Sing verse 1 on p. 18.

Learning the Basics

Focus: Language Arts, Math, and Science

Unit 1 - Day 2



Language Arts

Have students complete **one** of the cursive handwriting options below.

- ★ *Cheerful Cursive* p. 2 **or** *Italic D* half of p. 2

Complete **one** of the English options below.

- ★ *English 2*: Unit 1 - Lesson 2
- ★ *English 3*: Unit 1 - Lesson 2

If you chose the spelling list on Day 1, get out the word cards you made. Say the first spelling word. Use it in a sentence. Repeat the word. Ask students to write the word form memory on a markerboard or a piece of paper. Give students the matching word card to compare with their spelling. Guide students to correct any mistakes. Repeat the activity with all 10 words. If you chose dictation on Day 1, continue with the dictation passages in the Appendix.

Key Idea: Practice language arts skills.



Storytime

Read aloud the next portion of the biography that you selected. Without looking back at the story, model retelling or narrating the part of the biography that you read today to the students. Remember to tell the most important points and to add details from the story to the retelling without overwhelming the students. After the retelling, allow your students to take turns adding in any details they noticed that you missed. Make sure that students wait until after you are done narrating to add their details. Use the *Narration Tips* in the Appendix as needed.

Key Idea: Model retelling a story from a single reading.

Reading Choices



Choose **one** of the reading options listed below (see Appendix for details).

- ★ *Scheduled Books for Emerging Readers*
- ★ *Drawn into the Heart of Reading Level 2/3*

Key Idea: Use a step-by-step program.

Math Exploration



Complete the assigned lesson in the workbook listed below.

- ✓ Text Connection: *Primary Mathematics Workbook 2A* p. 9

Key Idea: Write two-digit numbers.



Science Exploration

Day 2 of each unit includes a science notebooking assignment for the students to complete. Each student will need a place to store the completed notebook entries. Either a 3-ring binder with plastic page protectors or a bound sketchbook with unlined pages works well. Say, *At the top of an unlined paper, copy Psalm 95:5. Beneath the verse, copy the diagrams of "Low Tide" and "High Tide" from p. 6 of One Small Square: Seashore. Make sure that the water on your diagram of Earth is facing the red arrow at low tide, and the land on your diagram of Earth is facing the red arrow at high tide. Label the moon and the Earth. Color the diagrams.*

Key Idea: God made the sea and the dry land. He designed the moon's gravity to cause the tides.

Learning Through History

Focus: Columbus Discovers America

Unit 1 - Day 3

Reading About History



Read about history in the following resource:

★ *A First Book in American History*
Chapter II: p. 7-11

Note: Have your students orally narrate or retell the portion of today's text that you read. Use the *Narration Tips* in the Appendix as needed.

Key Idea: Columbus had a hard time finding men to sail with him. Many of the men thought they would never come back. The men became frightened as the ships sailed on. Land was finally sighted.

Poetry



Read aloud with the students the poem "Four by the Clock" (see Appendix). Read the poem aloud a second time, switching readers every 2 lines (i.e. You read the first 2 lines, and the students read the next 2 lines.) Ask students, *What rhyming pattern do you notice when you listen to the words in the poem?*

Key Idea: Read and appreciate a variety of classic poetry.

Vocabulary



Students will need a place to write and store their vocabulary words for this year. Use either a card file with index cards and alphabetical tabs or a composition notebook with 2 pages labeled for each letter of the alphabet. You may choose 1-3 of the following vocabulary words from *A First Book in American History* for your students to use for this lesson: *impostors* (p. 7), *lamentation* (p. 9), and/or *standard* (p. 10). First, have students find the word in the text and read the sentence containing the word. Discuss possible meanings. Next, help students find the word in a dictionary and select the correct meaning. Have students write the word at the top of an index card or at the top of the corresponding letter page in the notebook. Underneath the word, have students copy the correct definition from the dictionary. Next, guide students to use the word correctly in a sentence. The sentence may be copied from the text or be a sentence of their own creation. Last, have students draw a small picture to show the word's meaning. If students used an index card to record their word, have them file it under the correct alphabetical tab in the card file.

Key Idea: Columbus was inspired by the travels of Marco Polo. He had to be brave as he sailed into the unknown sea.

Bible Study



Say Proverbs 2:3-5 with the students. Use the hand motions you added on Day 1. Next, have students run in place as fast as they can. When you say, *Freeze*, have the students stop and repeat Proverbs 2:3-5. Repeat the activity.

Say, Choose one way that you can be more persistent in honoring God. Make sure to do it today.

✓ Text Connection: *Little Pillows* p. 77-79

Key Idea: Columbus felt that God was leading him on his travels. We need to listen to God and persistently follow His way for our lives.

Corresponding Music



Hymns for a Kid's Heart: Vol. One, Track 1
Song Title: "Holy, Holy, Holy"
Sing verse 1 on p. 18.

Learning the Basics

Focus: Language Arts, Math, and Science

Unit 1 - Day 3



Language Arts

Have students complete **one** of the cursive handwriting options below.

- ★ *Cheerful Cursive* p. 3 or *Italic D* half of p. 3

Complete **one** of the English options below.

- ★ *English 2*: Unit 1 - Lesson 3
- ★ *English 3*: Unit 1 - Lesson 3

Key Idea: Practice language arts skills.



Storytime

Read aloud the next portion of the biography that you selected. Say, *Characters are the people in a story. Who is the most important character in the biography? At what point in the character's life did the author begin telling the story? Describe the characters the way you picture them in your mind. What are your feelings about the main character from what we've read so far? Explain.*

Key Idea: Introduce story element:

Reading Choices



Choose **one** of the reading options listed below (see Appendix for details).

- ★ *Scheduled Books for Emerging Readers*
- ★ *Drawn into the Heart of Reading Level 2/3*

Key Idea: Use a step-by-step program for reading instruction.

Math Exploration



Complete the assigned lesson in the workbook listed below.

- ✓ Text Connection: *Primary Mathematics Workbook 2A* p. 10-11

Key Idea: Use number patterns to write numbers that are more or less than the number given.



Science Exploration

★ Read *One Small Square: Seashore*, p. 8-9. Use the same binder or sketchbook you have chosen for your science notebooking. Make a science experiment section. You will need 34 pages for science notebooking and 34 more pages for science experiments. At the top of a blank page write: *Why do some things sink and others float?* Under the question, write: 'Guess'. Have students write down a guess to answer the question.

Fill a sink or tub halfway full with water. Have students drop a coin into the water. Ask, *What happened to the coin? As the coin fell, what happened to the water?* Next, have students place an air filled ball or balloon into the water. Ask, *What happened to the ball or balloon?* Push down on the ball or balloon so it goes under water. Ask, *Was it hard or easy to push the ball or balloon under water? Why? What did you feel?*

Next, on the paper, write: 'Procedure'. Have students draw a picture of the experiment. They should draw 2 tubs of water. The coin should be at the bottom of one tub. The ball or balloon should be floating in the other tub. At the bottom of the paper, write: 'Conclusion'. Have students explain whether their 'Guess' was correct or incorrect and explain why.

Key Idea: When an item is placed in the water it pushes down on the water, but the water pushes the item back up. Heavier items sink, and lighter items float.

Learning Through History

Focus: Columbus Discovers America

Unit 1 - Day 4

Reading About History



Read about history in the following resource:

★ *Journeys in Time* p. 8-9

Key Idea: Columbus reached land just as his crew was getting ready to mutiny. God protected Columbus on his voyage. He brought him to a new land.

Poetry



Say, *One line of poetry is called a "verse". Let's practice reading the poem "Four by the Clock" (see Appendix) by alternating readers verse by verse. Next, say, A "stanza" is a group of verses into which a poem is divided. Let's read "Four by the Clock," alternating readers by stanza this time. Ask, Why do you think poets write in verses and stanzas? Do you notice any pairs of words that rhyme at the end of the verses? These are called "rhyming couplets".*

Key Idea: Read and appreciate a variety of classic poetry.



History Activity

Each student needs 6 small index cards and a large ball or balloon. Cut the 6 index cards in half. Guide students to name the 7 continents (Antarctica, Africa, Australia, Asia, Europe, North America, and South America) and the 5 oceans (Pacific Ocean, Atlantic Ocean, Indian Ocean, Arctic Ocean, and Antarctic Ocean). List the names of the continents and oceans on a markerboard or a piece of paper.

Have the students copy the name of a different continent or ocean onto each index card. Make sure each name begins with a capital letter and is spelled correctly.

Next, have students tape the index cards onto their ball or balloon to show the correct location of each continent and ocean. Help students check their answers using a globe.

Key Idea: Exploration was very important during Columbus' time. There were many oceans and lands left to explore. The world was much bigger than people believed it to be.



Bible Study

Say Proverbs 2:3-5 with the students. Use the hand motions you added on Day 1. Say, *Name some ways that you showed persistence since the last time we met.*

Next, have the students do 10 sit-ups. (It helps if you hold their feet flat on the floor for them.) After 10 sit-ups, have the students recite Proverbs 2:3-5. Repeat the activity.

Last, guide students to copy Proverbs 2:3-5 from the Bible onto an index card. The students will need a way to store their memory verse cards this year. Either place them in a small 3-ring binder with clear, plastic pockets (like a recipe or photo album) or punch a hole in the corner of the cards and fasten them together with a metal ring.

Key Idea: Even though Columbus didn't find a new route to Asia, he did persist in accomplishing what God wanted him to do.



Corresponding Music

Hymns for a Kid's Heart: Vol. One, Track 1
Song Title: "Holy, Holy, Holy"
Sing verse 1 on p. 18.

Learning the Basics
Focus: Language Arts, Math, and Science

Unit 1 - Day 4



Language Arts

Have students complete **one** of the cursive handwriting options below.

- ★ *Cheerful Cursive* p. 4 **or** *Italic D* half of p. 3

Complete **one** of the English options below.

- ★ *English 2*: Unit 1 - Lesson 4
- ★ *English 3*: Unit 1 - Lesson 4

If you chose the spelling list on Day 1, get out the word cards you made. Say each word and use it in a sentence. Have students write each word and check it with the matching word card from Day 1. Guide students to correct any mistakes. For each missed word, have students jump in place and spell the word out loud, jumping each time they say a letter. If you chose dictation on Day 1, continue with the dictation passages in the Appendix.

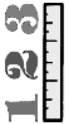
Key Idea: Practice language arts skills.



Storytime

Say, *Responsibility means being accountable to God and to others as you carry out your duties in a faithful way.* Read aloud the key verse 1 Peter 4:10 to illustrate *responsibility.* Say, *Name some duties that you are responsible for carrying out. How responsible would you say you are when it comes to doing your duties? What could you do to be more responsible?* Read aloud the next portion of the biography that you selected. Then, ask, *What duties are the characters responsible for carrying out? How responsible are the characters in doing their duties? What could the characters do to be more responsible?*

Key Idea: Introduce the Godly character trait: *responsibility.*



Math Exploration

Use the cards numbered '2'-'9' from one deck of cards. Fold two pieces of paper in half. Label the left half 'tens' and the right half 'ones'. Have two players sit side-by-side with their papers in front of them. Place the cards face down in front of the players. Each player draws 2 cards and places them on his/her chart to make the greatest number. Read aloud both numbers to see which is greater. Draw a 'greater than' sign on an index card and place it facing the larger number. The player with the larger number gets a point. Play to 5 points.

✓ Text Connection: *Primary Mathematics Workbook 2A* p. 12-14

Key Idea: Compare two-digit numbers.

Reading Choices



Choose **one** of the reading options listed below (see Appendix for details).

- ★ *Scheduled Books for Emerging Readers*
- ★ *Drawn into the Heart of Reading Level 2/3*

Key Idea: Use a step-by-step program for reading instruction.



Science Exploration

- ★ Read *One Small Square: Seashore*, p. 10-11.

Have your students orally narrate or retell the portion of today's text that was read. Use the *Narration Tips* in the Appendix as needed.

Key Idea: There are many different kinds of animals living in the sand on the seashore.

Learning Through History

Focus: Columbus Discovers America

Unit 1 - Day 5

Notebooking



Every fifth day of plans includes a notebooking assignment. These assignments will be completed within the *Bigger Hearts for His Glory Student Notebook*. Each student will need a 3-ring binder with plastic page protectors to store the notebook pages. Say, *Open your Student Notebook to Unit 1 – Box 1. On the map in Box 1, point to the continent of North America. Next, find the continent of Europe and circle Spain. Then, locate the continent of Africa below Europe. After that find the Atlantic Ocean. Next, you will be drawing a line to show Columbus' route from Spain to the West Indies. To help you draw Columbus' route, use the map from Journeys in Time p. 8-9. First, label the Canary Islands and the Caribbean Sea on the map in Unit 1 – Box 1 of your Student Notebook. Then, mark Columbus' route with a red line on your map in Unit 1 – Box 1 of the Student Notebook. In the 'KEY' in the bottom corner of the map in Box 1, draw a red line and write 'Columbus, 1492' next to it.*

Key Idea: Columbus sailed from Spain across the Atlantic Ocean in 1492.

Poetry



Read aloud with the students the poem *"Four by the Clock"* (see Appendix). Without looking at the words, have the students recite as much of the poem as they can from memory. Prompt students as needed.

Key Idea: Read and appreciate a variety of classic poetry.

Bible Study



Read aloud Luke 18:1-8 from your Bible. Ask, *In Luke 18:1, what reason did Jesus give for telling this parable? Why did the widow keep coming to see the judge? In Luke 18:5, what reason did the judge give for giving the woman what she wanted? In Luke 18:7, why did God tell us that we should persist in our prayers to Him? What can you learn about persistence from this parable? How can you be more persistent?*

Key Idea: Just like the widow in this parable, Columbus persisted with his requests until they were finally granted. We need to persist with our prayers and with the tasks that God has called us to do. God knows what is best for us, and He will answer our prayers in His own time.

Timeline



Every fifth day of plans includes one or more timeline entries. These entries will be added to a timeline you will assemble from the *Bigger Hearts for His Glory Student Notebook*. To assemble the timeline, remove the last 6 pages from the *Student Notebook*. These pages are numbered "Page 1" to "Page 6." Place pages 1-3 side by side from left to right. Tape the backs of these 3 pages together. Next, place pages 4-6 side by side from left to right. Tape the backs of these 3 pages together. Then, place pages 4-6 below pages 1-3 and tape the backs together to make one large timeline. A blue border outlines the timeline when it is assembled correctly. Say, *This will be our timeline. We will add important people and events as we study them. Each column stands for 50 years. Find the column that says '1450'. Draw a small ship in that column. Write 'Columbus, 1492' under it.*

Key Idea: Columbus landed in the Indies.

Corresponding Music



Hymns for a Kid's Heart: Vol. One, Track 1
Song Title: "Holy, Holy, Holy"
Sing verse 1 on p. 18.

Learning the Basics

Focus: Language Arts, Math, and Science

Unit 1 - Day 5



Language Arts

Have students complete **one** of the cursive handwriting options below.

- ★ *Cheerful Cursive* p. 5 or *Italic D* half of p. 4

Complete **one** of the English options below.

- ★ *English 2*: Unit 1 - Lesson 5
- ★ *English 3*: Unit 1 - Lesson 5

Key Idea: Practice language arts skills.



Storytime

Read aloud a short portion of the biography that you selected. Have the students orally narrate or retell the portion of today's story that you read aloud. Use the *Narration Tips* in the Appendix as needed.

Key Idea: Give students practice retelling a portion of a biography.

Reading Choices



Choose **one** of the reading options listed below (see Appendix for details).

- ★ *Scheduled Books for Emerging Readers*
- ★ *Drawn into the Heart of Reading Level 2/3*

Key Idea: Use a step-by-step program for reading instruction.

Math Exploration



Divide a piece of paper into 3 columns. Label the left column 'hundreds', the middle column 'tens', and the right column 'ones'. Tell students you will show them a 3-digit number with your fingers. The first number you show them is for the hundreds place, the second is for the tens place, and the third is for the ones place. Have students write the number in the correct column of their chart as you show them your fingers (i.e. 7 hundreds, 6 tens, and 3 ones). Then, have students read the number aloud (i.e. 763). Repeat the activity. Remember to use some zeroes.

✓ Text Connection: *Primary Mathematics Workbook 2A* p. 15-16

Key Idea: Review place value.



Science Exploration

★ Read *One Small Square: Seashore*, p. 12-13.
Ask, *What causes waves?* Have students share their guesses.

Place 2-3 inches of water in a rectangular pan. Set the pan on a flat surface. Place an electric fan on the flat surface near the narrow side of the pan of water. Caution students about the possibility of electric shock whenever something electrical is near water. If you do not have an electric fan, you may either use a blow dryer or accordion-fold a piece of paper to make a hand-held fan. Use the fan to blow air slowly on the water. Ask, *What is happening to the water?* Next, blow the fan faster. Ask, *What changes do you see in the water? What is causing the waves in the water?*

Ask, *Was your guess about what causes waves correct? Explain why, or why not.*

Key Idea: Wind causes waves. Waves don't make the level of water change, only tides do that. Tides make the water on the shore rise and fall.