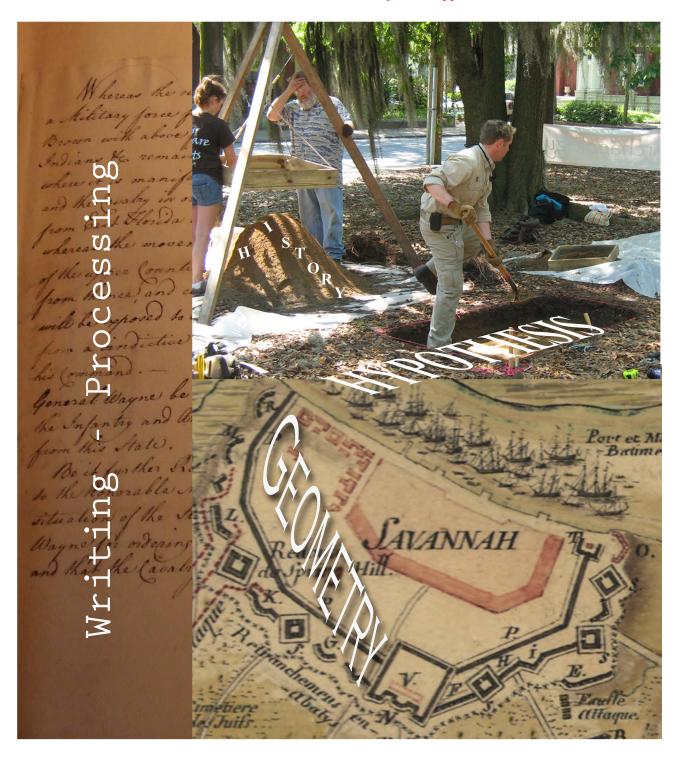
# Revolutionary Mathematics, Language Arts, Social Studies, and Science:

Using Archeology and the American Revolution to Teach Otherwise Boring Stuff



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By Rita Folse Elliott

Curator of Exhibits and Archaeology Curatorial Department Coastal Heritage Society 303 Martin Luther King Jr., Blvd. Savannah, Georgia 31401

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# Revolutionary Mathematics, Language Arts, Social Studies, and Science:

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Noteworthy events of the American Revolution only happened in places like Boston and Philadelphia, or at Yorktown and Valley Forge. How then, does one explain the pivotal battle engaging 12,000 French, Irish, Scottish, Hessian, English, Polish, Carribbean, African, Native American, African American, and American soldiers in what is now downtown Savannah, Georgia? This 1779 battle marked the very first time French and American troops were engaged in combat together against their common enemy, Great Britain. The British victory in Savannah had enormous consequences, leading to the fall of Charleston. The American Revolution was very much alive in Georgia and an inescapable part of everyday life.

If this story wasn't exciting enough, the history and archeology behind the Battle of Savannah offers a wonderful way to engage students in learning language arts, science, social studies, and mathematics skills. This curriculum packet was designed with that goal, and lessons are linked to Georgia Performance Standards. The curriculum uses recent archeological research conducted by archeologists with the Coastal Heritage Society and funded by the National Park Service as the content foundation. This curriculum was designed by an archeologist specializing in public outreach (Rita Folse Elliott). It benefitted greatly from an overhaul and sage suggestions by an experienced elementary school teacher (Ellen Provenzano), who is well-versed in archeological outreach. Her advice incorporated more teacher-friendly and student-useful aspects into the activities. Any failings on the part of the curriculum are entirely the responsibility of the author (Elliott).

Fourth graders learn about Georgia's role in American history, therefore, this curriculum focuses on that grade level. It is appropriate; however, for older students and some 5th grade GPS have been included. The lessons have multiple parts with differing levels of complexity. Older students, gifted students, homeschool students, and other students of various grade levels will also find portions interesting and educational. It is likely that most teachers will not have the classroom time to complete the entire curriculum. Teachers are encouraged to use portions of it that best fit their needs. We hope you and your students enjoy learning with these materials.

#### ELIZABETH'S DIARY

## **Elizabeth's Diary**

Elizabeth's diary is a fictional account based on actual facts related to Savannah and the 1779 siege of the city by American and French forces. Savannah was under British control since December of 1778 when British forces took the city. When the siege of the city by Franco-American forces was unsuccessful, the commanders decided to take the city back from British forces through a major attack on October 9, 1779. This battle was a major defeat for the American side and resulted in 800 deaths and/or casualties. Less than 50 British troops were wounded or killed. The British victory at the 1779 Battle of Savannah allowed Great Britain to continue its move across the south, taking Charleston several months later.

This lesson will allow students to visualize life during the Siege and Battle of Savannah. Students will read a letter by an offical character and then answer questions.

#### PROCEDURE

Students will use this example of historical fiction to help understand events and attitudes. Have the students read the *Elizabeth's Diary Worksheet* and complete the associated worksheet questions.

1. Discuss historical fiction and the usefulness of sources like a diary or journal.

2. Discuss with students the background information about the Battle of Savannah, in order to help students understand the historical context of Elizabeth's diary.

3. Read aloud the diary entry as a group.

4. Discuss how the diary entry showed how a young girl felt living in Savannah during the siege.

5. List on the board important details about Elizabeth and her family.

6. Have students complete their *Student Reading Comprehension Worksheet.* 

7. Review worksheet answers.

8. Do the "Compare & Contrast" activity as a group. Have the students draw a line down the middle of their paper. Label the left column "1778" and the right column "1779". The students

#### **Objectives:**

Students will learn:

- who fought in the American Revolution & why.
- to differentiate between facts and opinions.
- the characteristics of historical fiction genre.

**Materials:** *Elizabeth's Diary Worksheet, Student Reading Comprehension Worksheet, Time Line Chain Worksheet* 

#### Georgia Performanc Standards:

Information Processing Skills 1, 2, 4, 5, 8, 11

4th Grade

ELA4C1 c; ELA4R1 b, c, f (informational) f, h; ELA4W1a; ELA4W2 (informational) a,b,c,f; ELA4W3a,b,c; ELA4LSV1 c, h, i, j, k, l; SS4H3B

#### 5th Grade

ELA5R1 (informational) c,d,f,g,h; ELA-5W1a; ELA5W2 (informational) a,b,c,f,g; ELA5W3a,b,c,g; ELA5LSV1h,i,j,k,l

will use the information from the diary to compare Elizabeth's life in 1778 before she moved to Savannah and her life in 1779 after she moved there. Students should be instructed to think about Elizabeth's family members, where they lived, and the conditions. Students can list details about her life in the appropriate column.

Here is an example:

#### <u>1778</u>

Lived in the country. Lived on a farm. Lived with Poppa, Momma, and Thomas. Ate vegetables, raised cows. Spent time with best friend, Hannah.

#### <u>1779</u>

Moved to city (Savannah). Stayed in a basement in October. Lived with Momma and Thomas. Ate bread and corn/limited food rations. Quit school.

No friends.

Living in danger and fear of being wounded or killed.

9. Have the students do the Time Line Chain with a partner. Students will make a time line of the American Revolution with a partner. Clues to dates and important events are on the Time Line Chain Worksheet. Students should get several dates from the diary passage. Other dates can then be determined from these dates and the clues on the paper strips. The time line is made by writing a date and important event on a strip of paper. Students put the strips into chronological order. Each strip is made into a link of the time line chain. Students take the earliest dated strip of paper and staple both ends together. The next dated strip is looped through this link and stapled together. The process is repeated until there is a complete time line chain.

10.Extension Activity - Have the students write a fictional letter from Hannah to Elizabeth describing Hannah's current situation. Encourage them to consider details relating to Hannah's family as rebel supporters. Is Hannah and her family safe? Where are they? What are they doing to help the Patriot/rebel cause? October 4, 1779 Dearest Díary,

There are many soldiers in town now; many more than when Poppa, Momma, Thomas, and I moved here in the Spring. Poppa said it would be safer to live in Savannah than on our farm 70 miles away. This is especially true since British troops took control of the city this past December. I miss Poppa, who is with a regiment in New York.

Momma says we must be brave, like the British soldiers here in town who are protecting us against the rebels. She speaks poorly of the rebels. I know we are to support His Majesty King George, but my best friend Hannah and her family are rebels. Momma will not let me speak of them for fear that we will be turned in as rebels ourselves. Hannah is not bad. How can they say all rebels should be jailed?

I miss Hannah more now because I no longer receive lessons at the headmaster's house, which I enjoyed. Now that the rebels are camped outside town and are bombing the city, it is not safe to go to school. Momma says to stay in the basement, except when we go get rations from the British commissary. It is damp and dark in the basement and mostly boring, except when the rebels are bombing.

Yesterday I helped Momma get our rations, since Thomas is too young. It was very scary. We left the basement when it was quiet, but after only five minutes the bombs started again. I saw one hit the house behind us and Momma grabbed my hand and pulled me into Mr. Walton's empty store. We dashed down several alleys, hiding behind partially destroyed buildings as we went. It was hard to run because the trash has piled up. Since the city is under siege by the American rebels and their friends the French, few can leave the city and no one takes trash away or buries it. Momma and I finally made it to the commissary. We picked up our allotment of flour, corn, and lard. We are grateful to be allowed these rations to avoid starving. But how I miss the fresh vegetables from our farm and the milk from our cow! Our brisk walk home took us past two smoldering houses set afire by the bombing. I so wish this war would end soon!

Elízabeth

#### ELIZABETH'S DIARY-Student Reading Comprehension Worksheet

Use back of paper if you need more space to write.

1. When did the British take Savannah?

2. When did Elizabeth write her diary entry?

3. Why did Elizabeth's family move to Savannah?

4. Is Elizabeth's family a Loyalist (Tory) or Rebel (Patriot) family?

5. Why did Elizabeth and her mother rush to get rations?

6. What affect did bombing have on home conditions?

7. What kinds of things did Elizabeth miss?

8. Why can't Elizabeth see her friend?

9. Why was Mr. Walton's store empty and why did trash pile up in the alleys?

10. Who was holding Savannah under siege?

11. What is the main idea of Elizabeth's diary entry?

Facts and Opinions. Write "F' next to statements that are facts and "O" next to opinions.

The British took Savannah in 1778.	Elizabeth did not always live in Savannah.
Rebels should be jailed.	Elizabeth is brave.
Thomas is Elizabeth's brother.	Hannah's family are patriots, or rebels.
Thomas is younger than Elizabeth.	It is dangerous to be outside the basement.

#### ELIZABETH'S DIARY-Student Reading Comprehension Worksheet ANSWERS

1. When did the British take Savannah? December 1778.

2. When did Elizabeth write her diary entry? <u>Early October, 1779.</u>

3. Why did Elizabeth's family move to Savannah? <u>To be safer than on their farm, 70 miles away. In Savannah, they had the protection of British forces.</u>

4. Is Elizabeth's family a Loyalist (Tory) or Rebel (Patriot) family? <u>They are Loyalists.</u>

5. Why did Elizabeth and her mother rush to get rations? <u>They were in danger of being bombed by rebels</u> <u>shelling the city</u>.

6. What affectdid bombing have on home conditions? It made them abnormal. <u>The family was confined to a</u> <u>small, dark space. The family did not have freedom of movement, did not have regular diets</u>, and was fearful.

7. What kinds of things did Elizabeth miss? <u>Her friend Hannah, school, fresh vegetables, milk., being</u> <u>unafraid.</u>

8. Why can't Elizabeth see her friend? <u>Hannah's family are Patriots and would be arrested by the British if</u> they came to Savannah. Elizabeth can't go see Hannah because the city is surrounded by Patriot forces.

9. Why was Mr. Walton's store empty and why did trash pile up in the alleys? <u>The city was surrounded and</u> <u>under siege, so it was difficult to get supplies into town and trash out of town, and it wasn't safe to take the time to bury the trash.</u>

10. Who was holding Savannah under siege? <u>American and French troops camped out of town.</u>

11. What is the main idea of Elizabeth's diary entry? <u>A young girl's life is changed amid the conflict of war.</u>

Facts and Opinions Write "F' next to statements that are facts and "O" next to statements that are opinions.

- <u>F</u> The British took Savannah in 1778.
- $\underline{O}$  Rebels should be jailed.
- O Thomas is Elizabeth's brother. (probably true, though it doesn't say in the text).
- <u>F</u> Thomas is younger than Elizabeth.
- <u>F</u> Elizabeth did not always live in Savannah.
- <u>O</u> Elizabeth is brave.
- $\underline{F}$  Hannah's family are patriots, or rebels.
- $\underline{F}$  It is dangerous to be outside the basement.

### ELIZABETH'S DIARY - Time Line Chain Worksheet

(YEAR)	Savannah is taken by British troops.
(YEAR)	British troops and Loyalist civilians leave Savannah one year after losing Augusta.
(YEAR)	The British capture Charleston the year after they defend Savannah from the American attack.
<u>1776 (year)</u>	American leaders sign the Declaration of Independence.
<u>1781</u> (YEAR)	The Americans recapture Augusta, Georgia.
<u>1781</u> (YEAR) (YEAR)	The Americans recapture Augusta, Georgia. French and American rebel forces put Savannah under siege and then unsucessfully attack in the Battle of Savannah.
	French and American rebel forces put Savannah under siege

<u>1778</u> (YEAR)	Savannah is taken by British troops.
<u>1782</u> (YEAR)	British troops and Loyalist civilians leave Savannah one year after losing Augusta.
<u>1780</u> (YEAR)	The British capture Charleston the year after they defend Savannah from the American attack.
<u>1776</u> (YEAR)	American leaders sign the Declaration of Independence.
<u>1781</u> (YEAR)	The Americans recapture Augusta, Georgia.
<u>1779 (year)</u>	French and American rebel forces put Savannah under siege and then unsucessfully attack in the Battle of Savannah.
<u>1783 (YEAR)</u>	America wins the war and signs the Treaty of Paris with Great Britain 7 years after signing the Declaration of Independence.
<u>1775</u> (YEAR)	Lexington and Concord marks first official battle of the American Revolution. The war would last 8 years.

# Be An Armchair Archeologist!

This lesson is divided into the steps archeologists scientific investigations. conduct use to Students will learn science, reading, writing, skills and deductive reasoning in the activities associated with the different steps. This lesson allows the class to participate as "armchair archeologists" as students go through all the steps of an archeological investigation without leaving the classroom. Students will learn information about the Battle of Savannah from their armchair archeology experience.

#### PROCEDURE

1. Introduction to lesson. Brainstorm. List what students know about archeology on the board. Write the four questions below on the board. Discuss and answer the questions as a class.

1. What is archeology? Archeology is the study of how people lived in the past based on the things they left behind. Archeologists scientifically excavate and study those things, which include artifacts, ecofacts (plant and animal remains), and clues in the soil (stains, layers of soil, etc.).

2. Why are archeological investigations conducted? Archeology is the only way to learn about more than 10,000 years of Native American life (before there was a written history). Archeology provides an unbiased view of the history of all people: rich or poor; free or enslaved; young or old. It tells the story of those often silent in history, including minorities, the illiterate, women, children, and the poor. Archeology also reveals information about every day life in the past. It uncoversthings not included in books, such as everyday events, and information about how children, women, poor people, enslaved people, and the illiterate lived.

3. What happens when non-archeologists dig on a site? Archeology is a science. Archeologists spend years undergoing academic and field training to recognize, record, and interpret clues on a site. When non-archeologists dig on a site, they destroy these clues forever, along with the

#### **Objectives:**

To use archeology to teach:

- scienctific methods and techniques.
- reading comprehension.
- writing skills, and
- deductive reasoning.

**Materials:** Map Sheet 1, Map Sheet 2, Map Sheet Step 3 (each for visual display), State Map Handout (B&W copies of this for students are fine), State Map Handout, *State Map Worksheet, & Answers*, Fieldwork Photographs (for visual display), Fieldwork Photos Descriptions, *Fieldwork Worksheet, Cake Layers & Clues Worksheet, Excavation Unit 4 Worksheet & Answers, Artifact Analysis Worksheet & Answers, Interpretations Worksheet* (for visual display), *Archeology Report Worksheet, Archeological Dilemmas Worksheet.* 

#### Georgia Performanc Standards:

Social Studies Skills Matrices Map and Globe Skills 1, 2, 4, 6, 7, 8, 10, 11, 12 Information Processing Skills 2, 3, 10, 11, 12, 13,

#### 4th Grade

ELA4R1 (informational text) a,b,c,d,e,f,g,h; ELA4R3a,b,g; ELA4W1a,b,c,d; ELA4W2 (informational writing) a,b,c,d,e,f, h; ELA4C1 c; S5CS8a,b,c,d; SS4H4c

#### 5th Grade

ELA5R1 (informational text) a,b,c,d,e,f, g, h; ELA5R3a,b,g; ELA5W1a,b,c,d; ELA5W2 (informational writing) a,b,c,d,e,f,,g, h,i; S5CS8a,b,c,d

information they contain about the past.

4. How do archeologists investigate a site? Archeologists follow seven steps: Hypothesis & Research Design; Research; Fieldwork; Laboratory Work; Report Writing; Curation; and Public Outreach. Before digging, they make a hypothesis about what they will find and a research design about how they will do their work. Next they research the site's history. Then they scientifically excavate a site and record the clues. They bring artifacts to the lab where they are catalogued and studied. Archeologists then compile all this

#### ARMCHAIR ARCHEOLOGIST

information into a report. The report and artifacts are taken to a museum or university where they are saved forever for future research. Some artifacts are put in exhibits for the public to see. People also learn about the archeologists' work from booklets and websites about it. Sometimes the public is allowed to help doing field, lab, or research work.

• Students will participate in the archeological process by completing Steps 1-7 and the activities for each. These can be done over multiple class periods.

#### Step 1. Hypothesis & Research Design

Since 2005 archeologists with Coastal Heritage Society have been on a mission to discover what happened in Savannah, Georgia, during the American Revolution. In 2005 they uncovered Spring Hill Redoubt, one of the 14 mini-forts surrounding the city during the 1779 Battle of Savannah. Everyone thought the fort had been destroyed in the 1850s when the railroad complex was built.

Archeologists made the following hypothesis: "If the Spring Hill Redoubt has survived, then maybe other evidence of the more than 200 year-old battle has survived throughout the city." They developed a Research Design to test this hypothesis. Archeologists did this by putting copies of historic maps on computers. They used GIS (global information systems) to line up the location of the Spring Hill Redoubt on these old maps and on a modern map of Savannah. They used the location of their first fort discovery (the Spring Hill Redoubt) to line up the maps and then they "stretched" the maps on the computer to make them fall into place!

Their research design involved going to places where the maps showed forts and battlefields lying in modern parks.

#### **STEP 1 PROCEDURES**

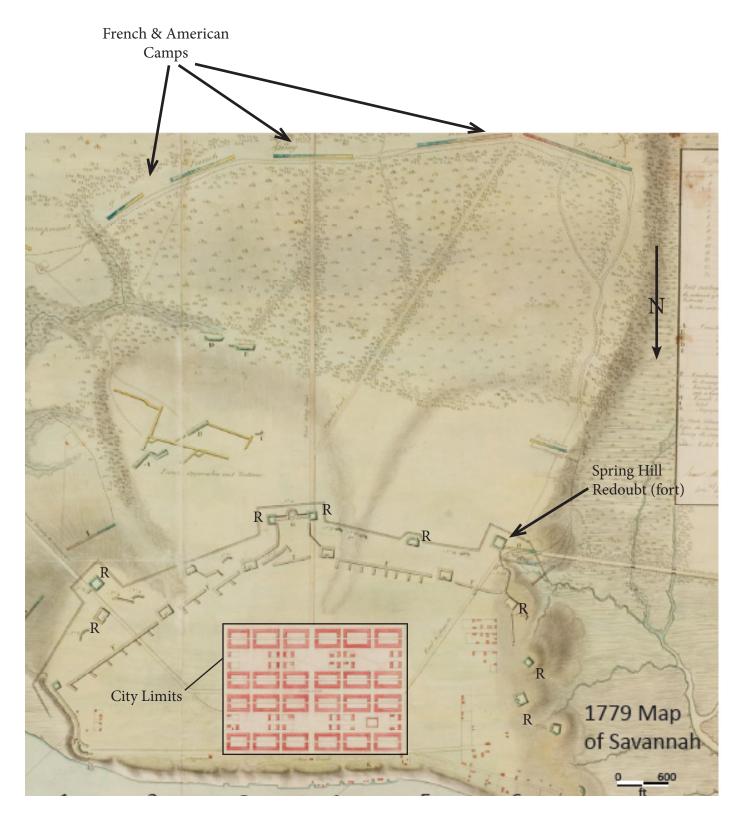
1. Explain how archeologists used maps, using background information above.

2. Show students Map Sheets 1, 2, and 3, using a smartboard, ovehead projector, hard copies, or other means. While showing the maps, have students assist with identifying specific features that are labeled on the maps. Features to identify:

- city limits (Maps 1,2)
- redoubts (Maps 1,2)
- French & American camps (Map 1)
- forts & trenches (Map 3) [show how they fall into green parks]

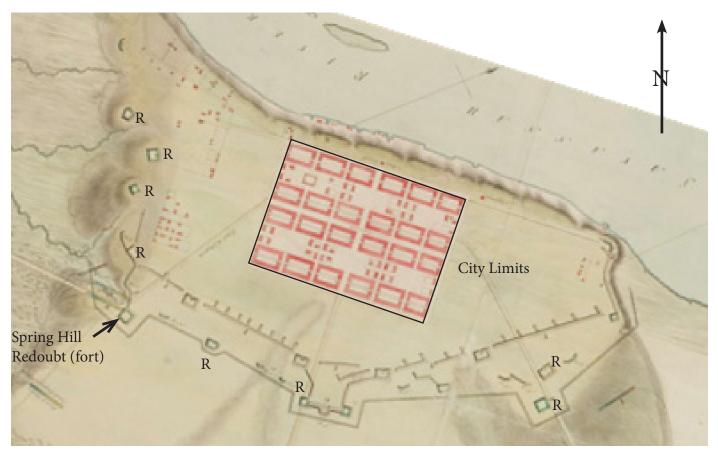
3. Allow students to complete the Historic Map Workheet while looking at each of these maps. (Have students answer questions that pertain to each map as shown.)

#### ARMCHAIR ARCHEOLOGIST Step 1 - Map Sheet 1

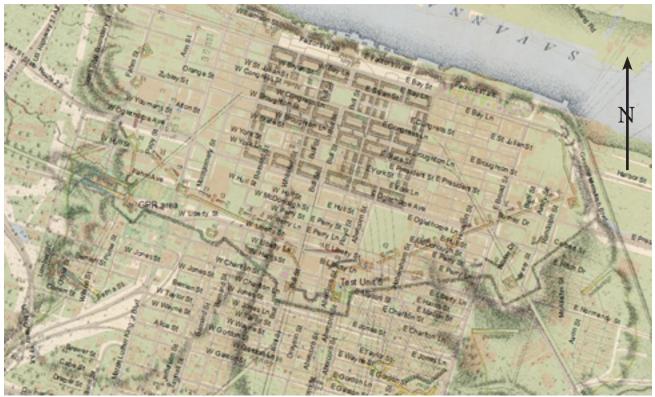


Archeologists labeled this 1779 map of Savannah. It shows the mini-forts, or redoubts labeled "R". It also shows the city, next to the Savannah River. (North is toward the river at the bottom of the page on this map.) Note where the French and American soldiers are camped, surrounding the outskirts of town.

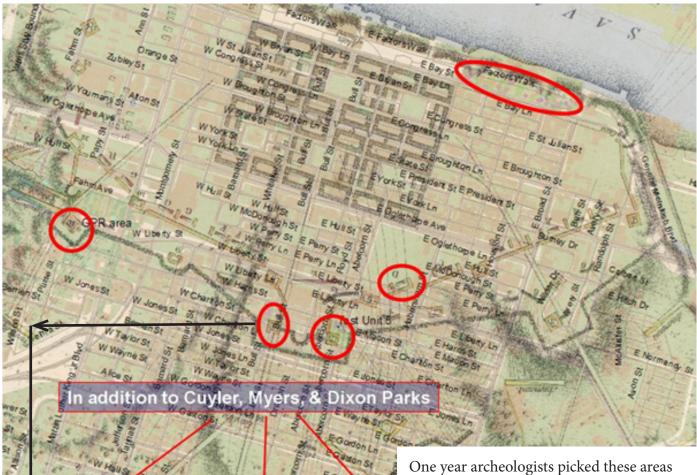
#### ARMCHAIR ARCHEOLOGIST Step 1- Map Sheet 2



Above: Archeologists labeled this 1779 map of Savannah with "R" for the mini-forts, or redoubts. It also shows the city, next to the Savannah River. Below: Archeologists put the 1779 map ontop a modern Savannah map and used a computer to make them line up correctly. Can you see things from the old map and roads and pink buildings from the new map?



## ARMCHAIR ARCHEOLOGIST Step 1 - Map Sheet 3



Hintiroto



One year archeologists picked these areas circled in red to investigate.

Trench conecting Revolutionary War redoubts.

Modern park (green space). This is Madison Square.

Redoubt or "mini-fort" defending Savannah during the Revolutionary War battle.

#### ARMCHAIR ARCHEOLOGIST Step 1 - Historic Map Worksheet

Use the three maps your teacher shows the class to answer these questions.

1. What do you think happened to the sandy trenches and forts after the battle?

2. What do you think happened to those same areas 100 years and 200 years after the battle?

3. Do you think any of the trenches and forts were still visible when archeologists began their work?

4. Archeologists were allowed to explore some of the parks shown on the maps. Why do you think archeologists picked Madison Square to explore?

As the project archeologist, you only have money to explore three parks this year. Pick three places on the map that you would excavate or explore. (Use Map 3.) Why did you choose these? Write a 1-3 sentence hypothesis about what you expect to find and why.

#### Step 2. Research Procedures

In order to conduct investigations, archeologists must know something about the project they are going to be working on. Step 2 will allow students to research the Battle of Savannah as archeologists would.

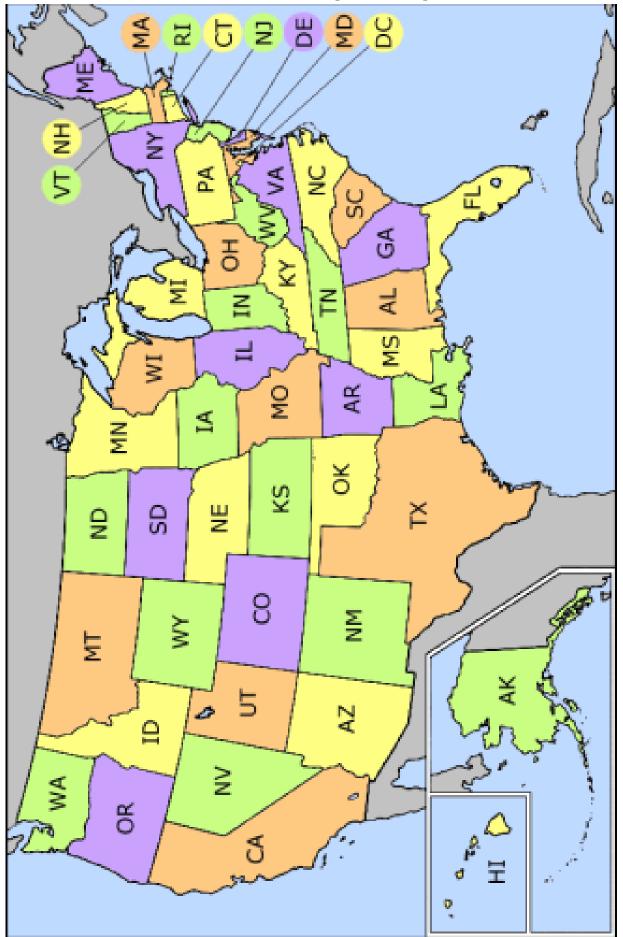
1. Have students research the 1779 Battle of Savannah in encyclopedias, on the internet, and in any other available resources. The students should use this information to write a paragraph about the battle, putting it into a brief, broader context. The paragraph should include dates, the opposing forces, and the goals of each.

2. Have students share what they have learned with the class.

Savannah archeologists traveled to five states to do research for this project. (Georgia, Michigan, New York, Pennsylvania, and South Carolina) They gathered copies of old maps and documents about Savannah and the battle.

3.Have the students complete the *State Map Worksheet*, using B&W copies of the State Map Handout.

ARMCHAIR ARCHEOLOGIST Step 2 - State Map Handout



#### ARMCHAIR ARCHEOLOGIST Step 2 - State Map Worksheet

Savannah archeologists traveled to do research for this project. They gathered copies of old maps and documents about Savannah and the battle. Help them conduct their research by answering the questions below!

1. Draw a star at the location of the city of Savannah. (Hint: Savannah is almost on the coast of Georgia, just south of the South Carolina border.)

2. Archeologists went to the William Clements Library where they found spy letters from the American Revolution. The library is located in a state surrounded on the east and west by very large lakes. Put a #1 on this state on the map. What state is it?

3. Research at the New York Public Library uncovered a map made by French engineers who were fighting along side the Americans during the Battle of Savannah. Put a #2 on the state of New York on the map. Name two of the five states that border New York.

4. The David Library of the American Revolution is located at a town named Washington Crossing. It was named for the spot where George Washington crossed the Delaware River! Archeologists found letters here from George Washington wanting to know who won the Battle of Savannah. Put a #3 on the state where the David Library is located. (Hint: the state is west of New Jersey and south of New York.)

5. Archeologists went to the capital city of Columbia to look at a list of African Americans who fought on the British (Loyalist) side during the Battle of Savannah. Put a #4 on the map on the state archeologists visited to see this list.

6. The City Municipal Library and Archives in this state had Savannah maps from the 1700s through the 1900s. This state is the largest state east of the Mississippi River (east of the state of Louisiana). Put a #5 on this state on your map.

#### ARMCHAIR ARCHEOLOGIST Step 2 - State Map Worksheet ANSWERS

Savannah archeologists traveled to five states to do research for this project (Georgia, Michigan, New York, Pennsylvania, and South Carolina). They gathered copies of old maps and documents about Savannah and the battle. Help them conduct their research by answering the questions below!

1. Draw a star at the location of the city of Savannah. (Hint: Savannah is almost on the coast of Georgia, just south of the South Carolina border.)

2. Archeologists went to the William Clements Library where they found spy letters from the American Revolution. The library is located in a state surrounded on the east and west by very large lakes. Put a #1 on this state on the map. What state is it? (<u>Michigan</u>)

3. Research at the New York Public Library uncovered a map made by French engineers who were fighting along side the Americans during the Battle of Savannah. Put a #2 on the state of New York on the map. Name two of the five states that border New York. (Vermont, Massachusetts, Connecticut, New Jersey, Pennsylvania.)

4. The David Library of the American Revolution is located at a town named Washington Crossing. It was named for the spot where George Washington crossed the Delaware River! Archeologists found letters here from George Washington wanting to know who won the Battle of Savannah. Put a #3 on the state where the David Library is located. (Hint: the state is west of New Jersey and south of New York.) <u>Pennsylvania</u>

5. Archeologists went to the capital city of Columbia to look at a list of African Americans who fought on the British (Loyalist) side during the Battle of Savannah. Put a #4 on the map on the state archeologists visited to see this list. <u>South Carolina.</u>

6. The City Municipal Library and Archives in this state had Savannah maps from the 1700s through the 1900s. This state is the largest state east of the Mississippi River (east of the state of Louisiana). Put a #5 on this state on your map. <u>Georgia</u>

#### **Step 3. Fieldwork Procedures**

When most people think of archeology, they think of digging. As the armchair archeologist for this project, students will make a list of tools they would need to do fieldwork and how each tool is used. They will find some hints in the two pages of Fieldwork Photographs to be displayed (either on a smartboard, overhead projector, hard copy prints, or other method).

3A. Use the Fieldwork Photo descriptions to discuss equipment with students, then have them do the *Fieldwork Worksheet*.

3B. Explain the following: Often archeological sites will have layers of soil and artifacts called "stratigraphy", similar to layers of a cake. Discuss how dirt layers are the same. Soil builds up over time (years, decades, centuries), covering the oldest artifacts at the bottom and the most recent artifacts at the top layers. If recorded properly, the stratigraphy can provide important clues about the site. Review the *Cake Layers & Clues Worksheet* with students, having them complete the answers.

3C. Follow-up with a review and completion of the excavation *Unit 4 Worksheet*.



ARMCHAIR ARCHEOLOGIST Step 3A - Fieldwork Photographs for Display 2/2



#### ARMCHAIR ARCHEOLOGIST Step 3A - Fieldwork Photo Descriptions

The answers below are keyed to the numbers on the two pages of Fieldwork Photographs. Archeology equipment shown in the photographs are explained below. Discuss these with the students, then have them complete the *Fieldwork Worksheet*.

Photo 1: Small hand screens (to sift soil and retrieve artifacts); shovel (square blade), hat (for protection from the sun).

Photo 2: North arrow and scale. (Used when taking photographs of an excavation . The arrow is positioned to face north and the ruler provides a scale in centimeters for the excavation unit.)

Photo 3: Ground penetrating radar machine (to locate suspicious areas underground that might be parts of archeological sites, clipboard (to take notes about the radar survey), hats.

Photo 4: Ladder (to safely get in and out of the excavation unit; trowels (small hand-tools the archeologists are using to scrape the soil on the inside of the hole. This allows them to see important clues in the soil.

Photo 5: Glove (to protect a hand from sharp artifacts like rusty nails and glass); "Munsell Book" (different chips of color that allow archeologists to compare the soil colors from one site to another, or from one part of a site to another part), labeled bag (used to collect artifacts from a specific location, which is then written on the bag), clipboard (used to fill out field forms and to draw field maps).

Photo 6: Transit (blue machine) and prism rod (laser transit machine and prism rod used to make a grid arcross a site, and to mark locations and depths of artifacts and clues in the soil.

Photo 7: Large shaker screen (used to sift large amounts of soil from big excavation units), gloves (to protect hands from sharp artifacts).

Photo 8: (Left to right) Menu board (board with individual plastic letters used to label location and depth of excavation unit in photographs, north arrow (laying across board. See #2 above), yellow roll of flagging tape (to label grid coordinates on the corners of excavation units), sprayer (to spritz water on excavation units in order to see clues in the soil better), backpacks (to hold equipment and personal gear), plastic bottles (for drinking water), bag/hand screen/water bottle (see descriptions above), hanging scale (thing that looks like a clock. Used to weigh artifacts, such as brick, in the field), black camera/bag (camera used to take photos of excavations, soil, clues in the soil, and the site, bucket (used to collect artifacts to weigh, or to transport soil or equipment), string (pink in this case. Used to outline area that will be dug as an excavation unit. The string outline helps archeologists keep the hole straight and the correct size), clipboard (see description above).

### ARMCHAIR ARCHEOLOGIST Step 3A - Fieldwork Worksheet

When most people think of archeology, they think of digging. As the armchair archeologist for this project, match the list of tools that are needed to do fieldwork (on the left) with a definition of how each is used (on the right). You may find some hints in the fieldwork photographs your teacher will show you. There is an example below to get you started.

Fieldwork Tools We Will Need:	Function of the Tool:
Shovel (square blade)	Looks like giant clock, but used for weighing large amounts of brick, mortar, and oyster shell
GPR (Ground Penetrating Radar) Machine	Book of color chips used to determine soil colors
Bucket	Laser machine used to establish a grid on a site
Transit & Prism Rod	Holds tools, supplies, and an archeologist's stuff
Arrow/Scale	Protects hands from sharp artifacts
Pump Sprayer	Used to dig (square holes)
Backpack	Instrument pushed across a site to detect man-made formations underground
Munsell Color Chart	
Screen	Holds artifacts and keeps them separated according to the location where they were found
Clipboard	Used to spray water on soil to see soil stains better
Gloves	Soil is sifted through this to find artifacts
Hanging Scale	Holds forms to be completed during fieldwork
Labeled Bags	Placed in field photographs to indicate north direction and scale/size of excavation area
	Multipurpose item for transferring soil to screen, carrying tools, and holding rocks to be weighed

Did you know that some of the most important clues for archeologists come from the soil? (But we also like food!) So here's some soil and food for thought.



One type of clue is the layers of soil and artifacts on a site. This is called "stratigraphy". The layers of this cake are a lot like stratigraphy on a site.

We know the order that the cake was made.

1. Someone put out a cake stand.

2. The baker put the first layer of cake on it.

3. The baker iced that layer and put another cake layer on top of that one.

4, 5. Next, the baker repeated this action until there were four layers of cake and three layers of icing.

6. The baker iced the sides and top of the cake.

7. Finally, the baker decorated the sides and top with fancy designs.

Which layer was put down first, and is "oldest" in the cake sequence?

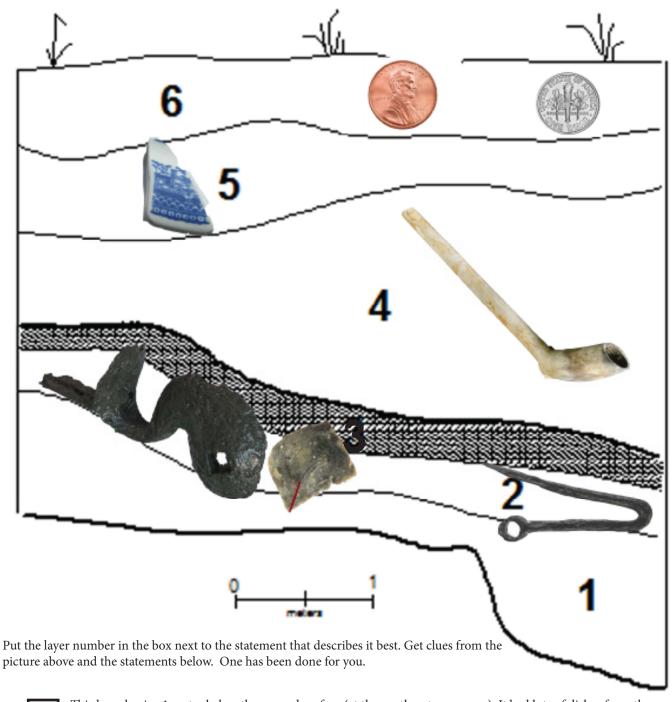
Which cake layer was put down last, and is the most recent?

We don't know how old the cake layers are, only which layers are older or younger than each other. This is called "relative dating". On an archeological site, <u>artifacts</u> in the layers of soil help us get "absolute" dates.

## What would happen if your little brother tried to eat only the icing from between the

**layers?** Would the cake look like the picture on the right? What happened to the layers? Would anyone ever know how the baker stacked the cake, or the order in which it was made?







This layer begins 1 meter below the ground surface (at the northeastern corner). It had lots of dishes from the 1830s to 1850s. There is a smoking pipe here. Draw a dish in this layer.

This layer had some purple glass that archeologists knew was made before 1917. It also had dishes from the late 1800s.

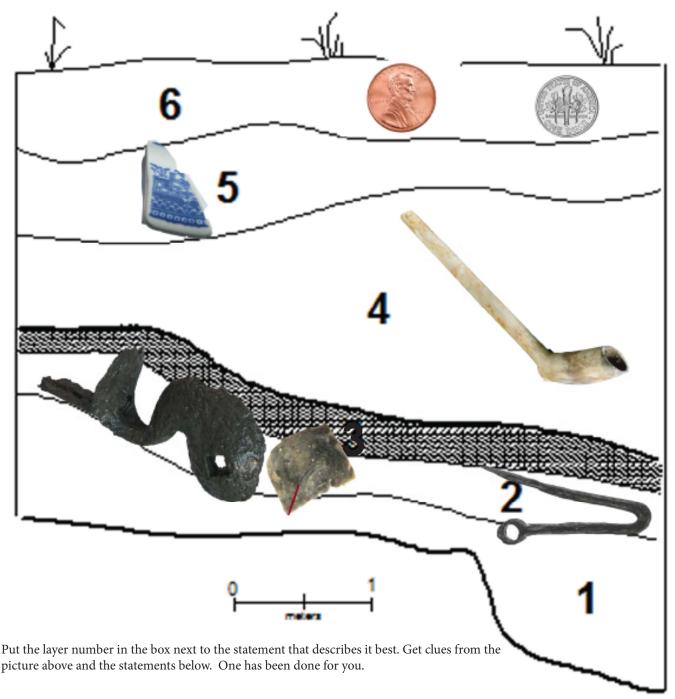
This layer had a 1962 penny and a 1989 dime.

This layer was at the bottom of a side, deep trench. There were round bullets here that looked like marbles. Draw 3 in this layer.

This layer had gun parts from the American Revolution.



This layer covered a long trench.





This layer begins 1 meter below the ground surface (at the northeastern corner). It had lots of dishes from the 1830s to 1850s. There is a smoking pipe here. Draw a dish in this layer.



This layer had some purple glass that archeologists knew was made before 1917. It also had dishes from the late 1800s.



1

This layer had a 1962 penny and a 1989 dime.

This layer was at the bottom of a side, deep trench. There were round bullets here that looked like marbles. Draw 3 in this layer.



This layer had gun parts from the American Revolution.

This layer covered a long trench .

#### **Step 4. Laboratory Work**

For every day spent digging, archeologists should spend three days conducting laboratory work. Often, laboratory work is when the most important discoveries are made. This is the time when the artifacts are washed, sorted, counted, weighed and analyzed. Archeologists enter this information into a computer database. They can then use the data to try to figure out what the artifacts, their locations, and the other clues in the soil tell them about the people who used the site.

1. Review the *Artifact Analysis Worksheet* Parts A and B individually with students, allowing them to complete each section. Review the answers to both sections.

2. Allow students to complete Part C of the *Artifact Analysis Worksheet* with a partner and present their answers to the class.

#### ARMCHAIR ARCHEOLOGIST Step 4 - Artifact Analysis Worksheet

Laboratory work is very important. Often that is when archeologists make the best discoveries! Help archeologists analyze the artifacts uncovered in the Madison Square excavation. Artifacts are often broken or missing parts. Archeologists must do research to find out what the artifacts use to be. If you do not know what something is, try using pictures to what the artifact may have looked like before it broke.



iron gun part (cock) ceramic broken dish flint gun part iron gun part (frizzen spring) clay tobacco pipe

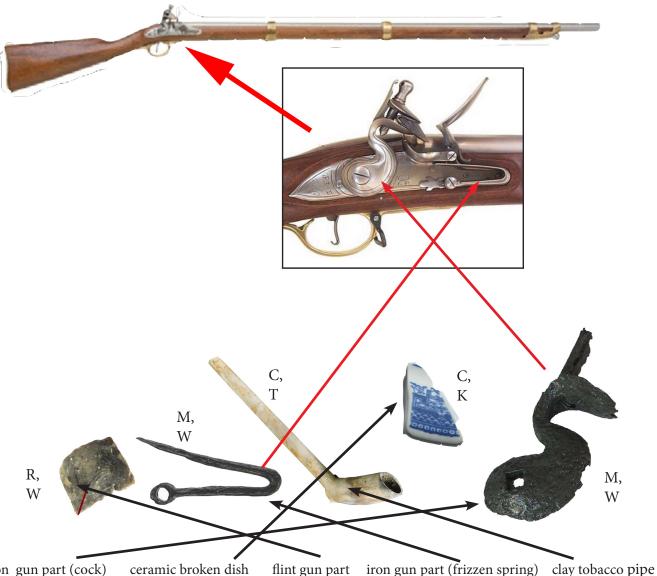
4A. Draw a line from the artifact to its name. Then match the two gun parts below to the photograph above.

4B. There are five artifacts above, but many, many ways to sort them in the laboratory. When you drew a line to their names, you sorted them by what they were called. Now sort them by what they are made of. For example put a "M" next to all the artifacts made of metal. Put a "C" next to artifacts made of clay. Put a "R" by things made of rock. Now sort everthing by function. Put a "W" by things used as weapons. Put a "K" by things used in the kitchen. Put a "T" by a tobacco-related artifact. Can you think of any other ways to sort these five artifacts?

4C. Why were most of these artifacts in a trench? What were they used for? Who used them? When and how were they used?

#### ARMCHAIR ARCHEOLOGIST Step 4 - Artifact Analysis Worksheet ANSWERS

Laboratory work is very important. Often that is when archeologists make the best discoveries! Help archeologists analyze the artifacts uncovered in the Madison Square excavation. Artifacts are often broken or missing parts. Archeologists must do research to find out what the artifacts use to be. If you do not know what something is, try using pictures to what the artifact may have looked like before it broke.



iron gun part (cock)

4A. Draw a line from the artifact to its name. Then match the two gun parts below to the photograph above.

4B. There are five artifacts above, but many, many ways to sort them in the laboratory. When you drew a line to their names, you sorted them by what they were called. Now sort them by what they are made of. For example put a "M" next to all the artifacts made of metal. Put a "C" next to artifacts made of clay. Put a "R" by things made of rock. Now sort everthing by function. Put a "W" by things used as weapons. Put a "K" by things used in the kitchen. Put a "T" by a tobacco-related artifact. Can you think of any other ways to sort these five artifacts? (by color, weight, where they were found, the age, etc.)

4C. Why were most of these artifacts in a trench? What were they used for? Who used them? When and how were they used? (They were used by British soldiers defending Savannah from inside the trenches. The weapons were used before, during, and after the Battle of Savannah.)

#### ARMCHAIR ARCHEOLOGIST Step 5

#### **Step 5. Report Writing Procedures**

Writing the results and interpretations of a dig is the singlemost important thing an archeologist does! As armchair archeologists, students will get to practice their reading, writing, and reasoning skills in this activity.

1.Display the *Interpretations Worksheet* to the class using a smartboard, overhead projector, hard copies, or other means. Use it for a class discussion covering these concepts:

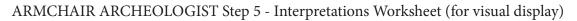
Different layers of soil (stratigraphy)

Time periods and events represented by soil layers

Difference in the two photographs and the reason for the difference

2. Discuss what happened to the soil (stratigraphy) and why that is important.

3. Give the students the *Report Worksheet*. Have students write reports as suggested by the *Archeology Reports Worksheet*.



Revolutionary War Trench Excavated by Archeologists

Modern





(Top) Archeologists carefully and scientifically excavated the area shown above. Their scientific techniques uncovered a military trench dug by British soldiers stationed in Savannah, Georgia, in the Fall of 1779.

Archeologists carefully recorded the layers of soil and artifacts, or *stratigraphy*. From these layers, they learned that the trench was used during the October 9, 1779 battle. Old documents told them that American soldiers filled in the trench in 1782, after the British soldiers left the city.

(Left) The area on the left was not excavated by archeologists. Can you see a difference between it and the photograph above? People not trained in archeology dug the site on the left, looking for relics. What do you think happened to the layers and other clues in the soil? Where are the artifacts? Just like the layer cake, the clues have been destroyed. We will never know what happened here in the past.

### Archeology Reports

Archeologists must write reports about their work so that other archeologists, historians, and other scientists can use the data. The reports include information about the historical research and methods archeologists used in the field and laboratory. They have to write about their results and what they think it means. They also write recommendations for the site and future research.

As an "Armchair Archeologist" write a report to teach someone what you learned from the archeology activities you did in the classroom.

Think about what is the role of archeology, what was discovered about the Battle of Savannah, and why archeology is important for historic information. Be sure your report has a beginning, middle, and end. Use good details. Try to persuade your audience to preserve archeological sites. If you get stuck, here are some things to think about:

- What do archeologists do other than dig?
- What types of things do archeologists study?
- What were archeologists hoping to find by digging in downtown Savannah?
- Why did they dig in downtown Savannah, considering the location of the fort outside of the colonial city?
- What type of research was done for the project and where was it done?
- What were some of the archeological discoveries in Madison Square?
- Why were the layers of soil important at the site?
- What happens when people who aren't archeologists dig for relics on a site where people in the past once lived, worked, or used?
- Why should archeological sites be saved and scientifically studied?
- What would you do if you were an archeologist?

### **Step 6. Curation Procedures**

Archeologists are not allowed to keep the artifacts they find. In fact, they have to pay universities and museums to take them. The money goes towards preserving the artifacts as complete collections forever and keeping them safe from fire, theft, vandalism and destruction. The universities and museums keep the artifact collections, along with the important field notes and reports, safe so that scientists in the future can study them and learn new things from the same artifacts. When artifacts are protected in this way, they are "curated" or saved so everyone can learn from them now and in the future.

Artifacts are best curated when they have been scientifically recovered from an archeological excavation. Unfortunately, this doesn't always happen.

1.Discuss the ideas above with the class. Divide the class into six groups. Assign each group an "Archeology Dilemma". Students will discuss what actions should be taken and report to the class.

### Archeology Dilemmas

- 1. You saw arrowheads for sale on the internet and the seller said he dug them up on an Indian village. You:
  - A. buy them because you still have allowance money from last week.
  - B. email the seller and explain to him that digging up sites destroys all the important clues about how people lived there in the past.
  - C. you don't buy them and ignore the seller.
  - D. email the seller and ask him if he will sell your relics for you.

2. Your town is building a shopping center on top the place where the founder of your town lived 150 years ago. The construction will destroy the site. You:

- A. get a group of friends and go to the county commission meeting where you ask commissioners to have archeology done before the shopping center is built.
- B. talk to newspaper and TV reporters about why the site is important.
- C. do A and B above.
- D. don't do anything and are excited that this is the sixth shopping center in your neighborhood.
- 3. Uncle Bubba invited you to go metal-detecting with him on Saturday on a Civil War battlefield. You:
  - A. tell him you have to do homework.
  - B. go with him because you want to find a Confederate belt buckle.
  - C. ask if you can bring your best friend.
  - D. explain to him that using a metal detector to dig up relics destroys forever the clues in the soil around them, just like a crime scene that gets messed up forever.

4. Your family was visiting a National Park over the weekend and you saw another visitor picking up artifacts from the park's Indian mound. You:

- A. politely explain to her that the artifacts need to stay at the site so other people can enjoy them and so they can be studied as a group of items.
- B. ignore her.
- C. tell the park ranger.
- D. help her find some more artifacts to keep.

5. You and your best friend found an 1892 coin on the school playground. You:

- A. start digging all around it trying to find more old things.
- B. ask your teacher if you can find an archeologist to come out and look at the site with the class.
- C. use the coin in the gumball machine at the convenience store.
- D. help your teacher find a historian who can help the class research how the area was used in the late 1800s.

6. Your Grandpa gave you a shoebox with the following: a medal he got when he was a soldier; a really old photograph of him and Grandma; a broken pocket watch from 1923; a campaign button from a Presidential election 50 years ago; and five hand-written letters your Grandma sent him during World War II. You:

- A. go to the library and check out books about how to preserve the different materials in the box and research each item in the box to learn more them.
- B. interview your Grandpa and Grandma about the items in the box and video tape their answers and/or write the answers down.
- C. do A & B above, compiling your information into a report to keep with the safely stored items.
- D. throw the box away, it's only junk.

### Step 7. Public Outreach

Today, archeologists do a great deal of public outreach. This can include public presentations about projects, tours of sites, allowing the public to help them excavate a site or study artifacts from a site, creating museum exhibits, and/or writing books about projects.

1. Have students make a poster illustrating any of the seven steps from the archeology project, or draw a picture of a museum exhibit they would design about the project, or write an imaginary newspaper article about what they have learned from the archeology project.

### **Recruiting 101**

Throughout history, governments around the world have used posters to recruit for military service. In spite of the high level of illiteracy during the American Revolution, most recruiting "posters" during that period that have survived were usually written proclamations from generals, kings, or other leaders, rather than posters. Instead of symbols and pictures, they used text to describe the incentives. It is likely that these proclamations were shouted aloud to villagers and townspeople. By the late 1800s images were used on posters.

The "Teacher's Poster Sampler" pages contain poster examples from 1847-2006. Students will analyze the posters and then make their own Revolutionary War recruiting posters using persuasive words, images, and symbols. In this lesson the class will first analyze recruiting posters (Step 1). Students will then be able to design their own posters (Step 2) and analyze classmates' posters (Step 3).

### **PROCEDURE** for Analysis

Step 1. Display the recruiting Poster Sampler images to the class (through a LCD projector or overhead transparency) [print will be legible]. Distribute the *Analyze a Poster Worksheets* to students. Have students complete the worksheets while the entire class answers the poster questions together as a class. (The "Teacher's Poster Chart" links answers to posters.)

### Questions About the Posters

What words were used to convince the viewer? "Patriotic, Bounty, Liberty, Now or Never, Valor and Heroism, Last Opportunity, Soldier Craftsmen, Best Paid, Free kit, Free Rations, Pay, Needs, Attention, Avenge I want you, Serve, Pride, Patriotism, 'Du bilt front' (translates "You are the front"), Maori language translates 'Stop! We appeal to you', Service, Aid, Vital, Strong".

*What values were written about or implied?* Loyalty, patriotism, revenge , pride, responsibility, confidence, ability

### **Objectives:**

To learn:

- who fought in the American Revolution/why.
- to study primary documents objectively.
- persuasive writing techniques.
- to differentiate between facts and opinions.

**Materials:** Poster Sampler (for visual display); Teacher's Poster Chart; *Poster Analysis Worksheet*, *Design Your Own Poster Worksheet*, Student Poster Rubric

**Georgia Performanc Standards:** Information Processing Skills 1,2,8,11, 15

#### 4th Grade

ELA4R1 (informational) a, c,g; ELA4W1a; ELA4W2 (persuasive) a,b,c,f,g; ELA4W3a,b,c; ELA4LSV1 h, i, j, k, l; ELA4C 1c

#### 5th Grade

ELA5R1 (informational) c,d,f,g,h; ELA5W1a; ELA5W2 (persuasive) a,b,c,f,g; ELA5W3a,b,c,g; ELA5LSV1h,i,j,k,l

*Did any posters try to scare people? (If so, how?)* Fear of being drafted and losing benefits, fear of continual enslavement, and fear of attacks on vessels

What pictures or symbols were used and what did these represent?

### \$ = money

Uniformed soldier(s) with medals/pins/patches, hat decorations, and accessories = authority, leadership, confidence

Lions = strength & courage

Mother lion=United Kingdom

Lion cubs=U.K. possessions & colonies

The sinking, burning ship = hostile military attack, loss of life (especially women and children)

Uncle Sam = U.S. & patriotism

The blacksmith and helmeted soldier =strength

The Star of David = Jewish religion

Tools = victory gardens

The dog = everyone can participate, no matter how small or seemingly trivial the action Female soldier at attention = confidence

What audience did each poster target?

Men (in Holmes County, able-bodied men, free black, civilians, white Germans, Russians)

Soldiers (non-commissioned officers, yeomen, ex-soldiers, and new recruits 17-35 years old, horsemen, enlistees from the United Kingdom's colonies, [icluding Australia, Canada, India, New Zealand, Irish male recruits,

Maori natives of New Zealand

Women (Jewish , black, and others) Families

Why would the words and pictures chosen be good at recruiting those audiences? Motivations for men included clothes and rations, authority, steady pay, training, strength, belonging to a group.

Revenge was the motivation for the ship sinking. It was built in Glasgow, Scotland, north of Ireland. It is possible that some passengers onboard were Irish.

Motivators for women included appealing to a sense of pride, patriotism, and wanting to contribute in a meaningful way.

Native languages were used to target Maoris.

Jewish language and symbols appealed to Jewish women.

### **RECRUITING 101 - Poster Sampler 1**





10. Russia, Civil War, 1917-1923



11. U.S.A., WWII, 1942



12. U.S.A., WWII, 1942



13. German, WWII, 1940-1941



14. New Zealand , (Maori,) WWII, 1941



15. United Kingdom, (Hebrew), WWII



16. U.S.A., WWII, ca 1941-1945



17. U.S.A., WWII, ca 1941-1945



18. U.S.A, 2006

Poster #	Audience	Convincing Words	Values	Fear Of	Pictures/Symbols
1	Men, Holmes County	Patriotic	Patriotism		Eagle
2	Men, able-bodied men	Wanted, Clothes & rations furnished			Eagle
æ	Men	\$50 Bounty	Pesonal Advantage	Draft, Fewer benefits	\$ (money)
4	Men, free black	Liberty, Now or Never, Valor & Herosim, Last Opportunity, We Appeal to	Freedom, Pride	Enslavement	
ъ	Non-commissioned officers, yeomen, ex-soldiers, new recruits	Soldier Craftsmen, Best Paid, Free Kit/Rations, Shortened training	Personal Advantage		Soldiers in uniforms w/medals
9	Horsemen	Bounty \$100	Personal Advantage		Soldiers in uniforms; horses & tack
7	United Kingdom residents	Needs	Loyalty/Patriotism		Lions
8	Men	Attention	Pride		Soldiers in uniforms w/medals
6	Men, Irish	Avenge	Revenge	Attacks	Sinking ship
10	Russians	(not translated)			Russian "Uncle Sam"
11	Men, civilians	I Want You	Loyalty/Patriotism		Uncle Sam
12	Women, white	Patriotic/Patriotism, Serve, Loyalty/Patriotism, Pride	Loyalty/Patriotism, Pride		Soldiers in uniforms w/medals
13	Men, German	You Are the Front	Pride, Responsibility		Blacksmith/helmeted soldiers
14	Maori natives/families	We Appeal to You	Loyalty/Patriotism		Maori soldier w/gun
15	Women, Jewish	(not translated)	Confidence/Ability		Soldiers in uniforms w/medals, Star of David
16	Women, Children, men	Service	Responsibility, Confidence/Ability		Tools
17	Women	Aid/Vital	Loyalty/Patriotism, Confidence/Ability		Recyclables, dog
18	Women, black	Strong	Confidence/Ability		Soldiers in uniforms w/medals

### RECRUITING 101 - Teacher Poster Chart

Throughout time, governments around the world have used posters to recruit for military service. Recruiting "posters" during the American Revolution were usually written proclamations from generals, kings, or other leaders. Instead of symbols and pictures, these posters used words to tell what rewards people would receive by supporting the military. By the late 1800s images were put on posters.

Look at examples of recruiting posters from 1847-2006. Study, or analyze these posters to answer the questions below. What persuasive words, images, and symbols does each poster use to convince the viewer?

Questions about the Posters

1. What words were used to convince the viewer?

2. What values were written about or implied?

3. Did any posters try to scare people? (If so, how?)

4. What pictures or symbols were used and what did these represent?

Step 2.Divide the class into small groups. Distribute one *Design Your Own Poster Worksheet* to each group. Explain to the students that they will be designing their own poster. List on the board the goals they can choose from. Here are some examples, although students may suggest examples after a few of these are listed:

- To recruit Georgians to become British Tory soldiers.
- To recruit Georgians to become American Patriot soldiers.
- To recruit enslaved African-Americans to escape and join the British troops.
- To get Hessian soldiers fighting for the British to change sides and join American Patriots.
- To get colonists in Georgia to support troops on one side or the other.

After students select a goal above, they will need to use resources to find important details about their audience and details that will also persuade the poster viewer. Have them look in books and on the internet for enough information to design a poster. A dictionary and thesaurus should be used to include better and more persuasive words.

Discuss with students these concepts:

Who is your audience and what do you know about them that would help you pick convincing words, values, and pictures?

What would you say to be convincing? What values, emotions, or needs would you appeal to in your poster?

Are there certain pictures or symbols you could use to persuade someone? What are they and why?

Make a bibliography of the sources you used for information. Try to use several different sources, such as a dictionary, thesaurus, encyclopedia, internet, almanac, and atlases.

### RECRUITING 101 - Design Your Own Poster Worksheet

Make a Poster

You or your group will design a poster for the American Revolution. First, you must decide on the goal of your poster. Who are you trying to persuade? What are you trying to get them to do? Brainstorm ideas with your teacher and classmates, then write your goals here.

My/our poster will target (who?)

My/our poster will try to persuade them to (do what?)

To make a persuasive poster, you must learn more about your target audience. Use books, the internet and other resources to discover important details about your audience. Try to use several different sources, such as a dictionary, thesaurus, encyclopedia, internet, almanac, and atlases. A dictionary and thesaurus should be used to include better and more persuasive words. Make a bibliography of the sources you used for information. Some things to think about:

- What do you know about your audience that would help you pick convincing words, values, and pictures?
- What would you say to be convincing? What values, emotions, or needs would you appeal to in your poster?
- Are there certain pictures or symbols you could use to persuade someone? What are they and why?

Bibliography (List your sources below and on the back of this paper).

### RECRUITING 101 - Analyze Your Classmates' Posters

Step 3. After the students make their posters, display the posters around the room, in the hall, library or other space.

Have each group analyze two posters made by other groups, using the Student Poster Rubric. Have a representative of each group share the answer to the class at the bottom of the rubric, "Would any of the posters persuade you to act? Why or why not?" Work with your group to analyze two posters made by other groups. Use the rubric below. Be prepared to share the answer to the first question with the class.

### **Student Poster Rubric, Recruiting 101**

Names of Group Members:	
First Poster Analyzed:	

	Does not meet expectation	Meets Expectation	Exceeds Expectations
Objective	(1-2 pts.)	(3-4 pts.)	(5-6 pts.)
Addresses Audience			
Correct Information			
Colorful			
Good Word Choice			
Persuasive			

# Your Name: Names of Group Members: 2nd Poster Analyzed:

	Does not meet expectation	Meets Expectation	Exceeds Expectations
Objective	(1-2 pts.)	(3-4 pts.)	(5-6 pts.)
Addresses Audience			
Correct Information			
Colorful			
Good Word Choice			
Persuasive			

Would any of the posters persuade you to act? Why or why not?

What are facts and what are opinions on the posters?

### Spy Map

Today we use global positioning systems (GPS), Google maps, and mass-produced paper road maps when we travel. During the American Revolution, however, these navigational aids did not exist. Even paper maps were often imprecise and unreliable. This made traveling and warfare difficult for the British and American allied forces (American Patriots and French allies). Accurate maps were necessary to understand the terrain, the location and movement of troops, and military strategies in attacking and defending key positions.

In this lesson students will be Patriot spies. They will interpret and label a historic map and write a letter to Patriot forces describing the map and its pertinent information.

### PROCEDURE

1. Display one copy of the *Spy Map Worksheet* on a smartboard, overhead projector, as a large paper copy, or by another appropriate method. Discuss the importance of maps during the Revolutionary War.

2. Explain to students that their assignment will be to act as a spy to supply important information.

3. Pass out the Spy Map and *Spy Map Worksheets*. Allow the students to complete the worksheets. (Continue to display the *Spy Map Worksheet* as directed above, as it is the color version). Dicuss the answers with the class. At this time, display the Spy Map Answer Sheet.

4. Pass out the *Spy Map Letter Worksheet*. Have students answer the questions.

5. Write a letter to George Washington providing additional information to go with the Spy Map, using information from the *Spy Map Letter Worksheet*. You must include this information in your letter. Add any other details that may be

### **Objectives:**

Students will practice higher order thinking skills through:

- interpreting historic maps.
- analyzing text data.
- interpreting geographical data to synthesize a broad understanding of natural elements relating to the Battle of Savannah.

**Materials:** Spy Map, Spy Map Answer Sheet (use as visual), *Spy Map Worksheet* (2 pages), *Spy Map Letter Worksheet* 

### Georgia Performanc Standards:

Information Processing Skills 11, 12, 15 Map and Globe Skills 1, 3, 4, 7, 8, 10,

4th Grade M4N2a; M4N4d; M4P1a, b, c; M4P4c , M4G3 ELA4W1a-b, ELA4W2 informational a,c,d,h, e ELA4C1c,e,h ELA4R1informational a, h,g ELA4LSV1 b, c, f SS4G2 d

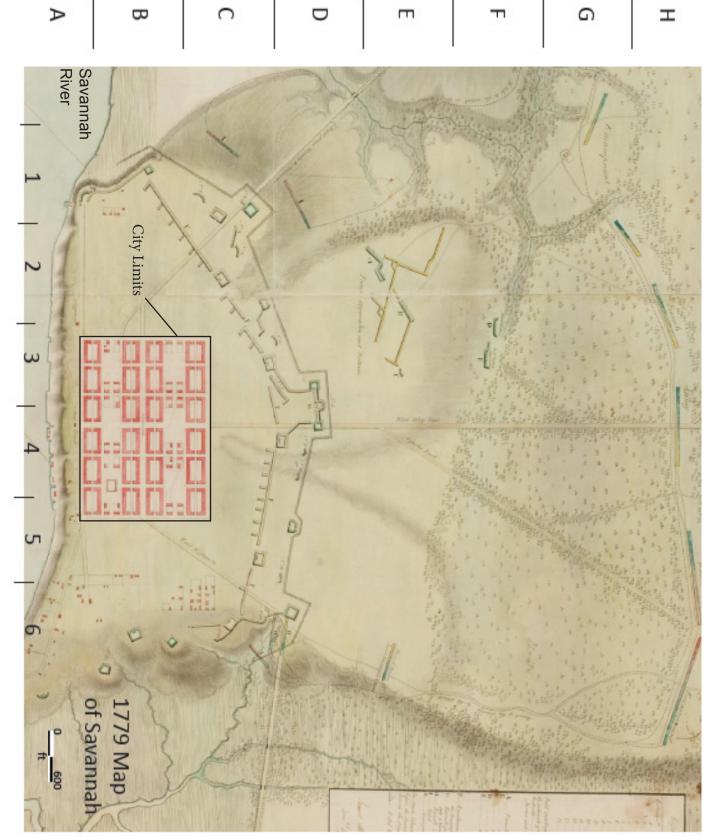
important and/or interesting.

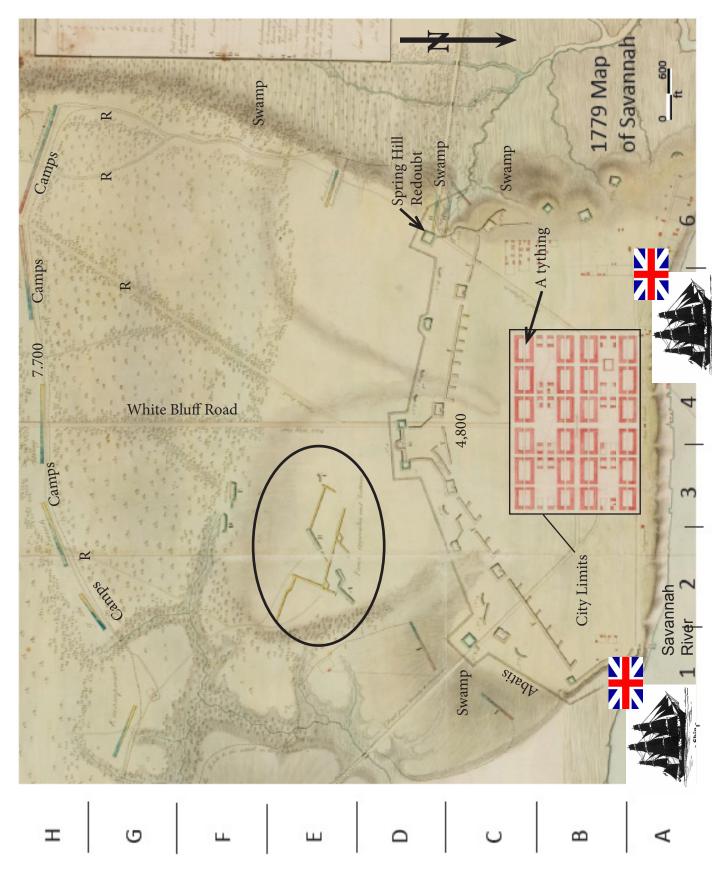
6. Have students read their letters to partners.

7. Summarize:

- The Patriots lost the 1779 Battle of Savannah, in part because their number of troops to attack the fortified city was too low.
- The rounded numbers of soldiers are 7,700 allies to 4,800 British, for a ratio of 1.604 to 1, or 1.6 allies for every 1 British soldier.







# Spy Map Worksheet p.1

As a leader and spy in the Patriot forces you have received a separate map and the letter below. You have collected information that will be useful for the American cause. Use the following clues you have collected to mark important information on your spy map.

Top Secret October 7, 1779 To the recipient of this message: American forces in New York need key facts from you about the British in Savannah. Please mark important locations and details on the enclosed map. This information is essential to the success of the Patriot cause. Should you fall into the hands of enemy British forces, destroy these papers! I remain your most obedient servant, Genl George Washington

Most maps are drawn so that "North" is at the top of the page. The 1779 map is just the opposite. North is toward the bottom of the page.

1. Draw an arrow facing the bottom of the page and write "N" next to it.

2. Draw ships in the Savannah River to show that British forces have vessels there. Label them with British flags or colors.

3. Large rectangles represent a *tything*, or block with 10 house lots on it. Color the tything blocks on your map red or draw a box around them.

4. Find the long street perpendicular to the river and running south from town. Label it "White Bluff Road".

5. There are fourteen, square "mini-forts" called *redoubts* surrounding Savannah. These are outlined by a long line of chopped down trees called an *abatis*, to slow an enemy attack. Label the abatis.

### SPY MAP - Worksheet p2

# Spy Map Worksheet p.2

6. Our spies have reported that the Spring Hill Redoubt is the weakest. They identified it as the redoubt on the southwestern corner of the defenses surrounding the city. A road runs from the Spring Hill Redoubt to the west. Locate the Spring Hill Redoubt by labeling it on the map.

7. Find the scale (ruler) on the map. The camps of the French and American patriots form a semi-circle around the city, about 3,000 feet south of the fortifications. Label this area on the map "camps".

8. Shadowy, shaded areas on the map depict swampy, wet areas. Label these areas as "swamp" on the map. Many of these areas also have creeks, which are shown as squiggly lines.

9. Are there any roads Patriot troops could use to march closer to the city? Put an "R" for road on each.

10. The American and French allies have been able to get very close to the city's defenses! The allies have dug several trenches so they can put canons in them and shoot them at the city. The trenches are located at E-2 and E-3. Circle these trenches on the map.

11. There are 7,722 allied soldiers (French, American, and others on the Patriot's side). There are 4,813 British troops defending Savannah. Write both numbers near the location of the troops, rounding each number to the nearest hundred.

# Spy Map Letter Worksheet

To complete your spy mission, you will also need to include a written letter to go with the map. On a separate piece of paper, begin a letter with, "Dear General Washington". You can use the maps and your answers on it to help write this letter.

1. Write in your letter the number of tythings, or squares in Savannah at this time.

2. Now that you measured the distance, in feet, from the camps to the city, tell George Washington how far that is in miles. (Hint: There are 5,280 feet in a mile.)

3. Since you located Spring Hill Redoubt on the map, put its location coordinates in your letter. Use the numbers and letters on the map to determine this.

4. Give the coordinates of at least two swamps that you labeled on the map. Would swampy areas outside the city's fortifications be better for the British defenders of Savannah or the Patriot attackers? Why? Include this information in the letter.

Experts say that an army attacking a fortified city needs at least three soldiers for every one soldier defending the city. This would be a ratio of 3:1. (You read this by saying "3 to 1")

5. Using your rounded numbers, determine the ratio of the Patriot attackers to British defenders. Do this by dividing the number of allied troops by the number of British troops. (Tip-if your rounded numbers each end in "0", you can drop the last two zeros on both and have only two digit numbers to divide. The ratio is \_\_\_\_\_ to 1. Another way to write that is \_\_\_\_:1

6. Is that equal or greater than the 3 to 1 ratio required for a successful attack? Based on this ratio, who do you think won the Battle of Savannah?

7. Tell General Washington in the letter who you think will win the Battle of Savannah. Will it be the British who currently defend the city? Or will it be the Americans and French who camp outside the city, waiting to attack? Why do you have this opinion?

# Spy Letter

Spies lurked on both sides of the American Revolution. A spy could be a washerwoman scrubing soldiers' clothes, while secretly counting the number of soldiers to report to the enemy. Sometimes spies were soldiers in one army secretly working for the other army. There were spies in Savannah on both sides war. Some historical accounts say spies told the British that the Patriots would attack Spring Hill Redoubt and that is why the Americans lost the battle. This has not been proven.

Students will use the information they have learned to write their own spy letter. They will think about details from the Battle of Savannah. After writing the letter, students will then be able to see if they can solve a spy letter from another student. Creating the spy letter can be a take-home project for students, as long as the teacher models the activity first.

### PROCEDURE

1. Have students pick a character from the *Revolutionary Characters Student Worksheet*. Have the students pretend to be that character, and imagine they are really spies for the other side.

Brainstorm with students about possible spy scenarios. List them on the board. For example, is a prisoner a plant to gather information about troop locations from real prisoners? Or is a French engineer drawing a map showing the location and numbers of Patriot troops to give secretly to the British? Is the young girl living in Savannah really a Patriot carrying secret messages to American troops outside of town, about the location of British cannons? Did the British drummer boy desert to join American troops and tell of plans for a counterattack?

2. After some discussion, have students (as their chosen character) write 3-5 sentences giving important information about the enemy. This might include one or more of the following: number of soldiers, location, health or sickness of troops, number of guns, amount of ammunition,

### **Objectives:**

Students will:

- acquire knowledge and practice writing figuratively and imaginatively.
- discover information about some of the historical figures in the American Revolution

**Materials:** *Spy Letter Worksheet*, Revolutionary Characters (for visual display), 4 Spy Letter Templates (teacher cuts out in advance), Spy Letter Example

### Georgia Performanc Standards:

Information Processing Skills 5, 11 4th Grade GPS ELA4W1a,b,c,d; ELA4W2 (narrative writing) a,b,c,d,h; ELA4W2 (informational writing) a,b,c,d,e,f,h, ELALSV1 c, f, g, h, i, k, l, ELA4C1 c, e

### 5th Grade GPS

ELA5W1a,b,c,d; ELA5W2(narrative writing) a,b,c,d,e,h; ELA5W2(informational writing) a,b,c,d,e,f,h,I

military plans, amount of food available, plans for attack, etc. (This can be anything the character might have heard as a spy, gathered from the *Revolutionary Characters Student Worksheet*, and/ or made up.)

3. Students will then use their sentences in a Spy Letter that can be disguised and sent through enemy lines. It is essential that you model for the students how to do this using the example.

Use the "Spy Letter Templates" to trace and cut out template copies to pass out to students out of cardboard or stiff paper. (Several students can share a template.)

Have students lay the template on a piece of paper. They will put a dot on the paper where the top of the template is and write their 3-5 sentences inside the template. 4. They remove the template and write words above, on either side, and below the sentences. These sentences must be part of a newsy-letter that all go together.

For example, if your first sentence in the template is, "There are 300 at the river." (meaning 300 enemy soldiers camped at the river) then you want to build a story around that. See the "Spy Letter Example" for one way to write about it. Repeat the process until the 3-5 sentence spy message and the letter around it are complete.

5. Group students, sorted by the template shape they used. Redistribute the templates so that each group gets a different template than the one used. Give groups a letter that matches their template. Groups then read the letter, looking for meaning. Is the secret message obvious without the template? (If so the writer was not a very good spy!) Groups then apply the template and read the secret message.



# **Spy Letters** Chose a Person to Be (You Can Be ANYONE on these pages)

# American and Allied Troops



American Major General Benjamin Lincoln wrote of the difficulties in getting American forces across rivers and swamps in Savannah. " ...great fatigue from the want of boats, and badness of the roads through a deep swamp..."



Pierre Ozanne was a French engineer. He came with the French fleet and saw the 1779 Battle of Savannah. Pierre drew maps and sketches of the battle.



Commander of American forces, General George Washington wrote to American General Benjamin Lincoln, 17 days after the Battle of Savannah, "We are most anxiously waiting for accounts from the South...:



French Captain de Terson commented, "It rained and thundered terribly...The soldiers had just reason for complaining. They are dressed in shoddy linen and have no change of clothes."



Private William Poplin was a horseman in the Chatham County mounted militia. He was captured at the Battle of Brier Creek and put on board a prison ship in Savannah for six months and almost starved to death.



**Spy Letters** Chose a Person to Be (You Can Be ANYONE on these pages)



British troops evacuated Savannah in 1782. They took Loyalists with them, including whites, freed blacks and runaway slaves. Many were taken to Canada to live.



"300 of the Cherokee have just joined our forces at Savannah and 1,000 more are hourly expected."



Black Loyalists were free Negroes forming British companies. Black Pioneers were runaway slaves who also joined British forces and built redoubts and dug ditches.



Hessian troops from the area that is now Germany fought for the British. Captain Heinrichs reported that, "ships of 400-500 tons" could sail up the Savannah River to the city form the ocean.



Loyalist Alexander Wylly's house in Savannah was "almost torn to pieces by the enemy's bombs."



### **Spy Letters**



Anthony Stokes' home was looted by French forces and he "lost the wine, provisions, furniture, some books and other articles..."



During the Battle of Savannah, 1 drummer boy was wounded, 2 were missing and 2 deserted.



Crowds of hysterical women and children, and enslaved and free men pressed into areas in Savannah they hoped were safe from rebel shelling and bombing.

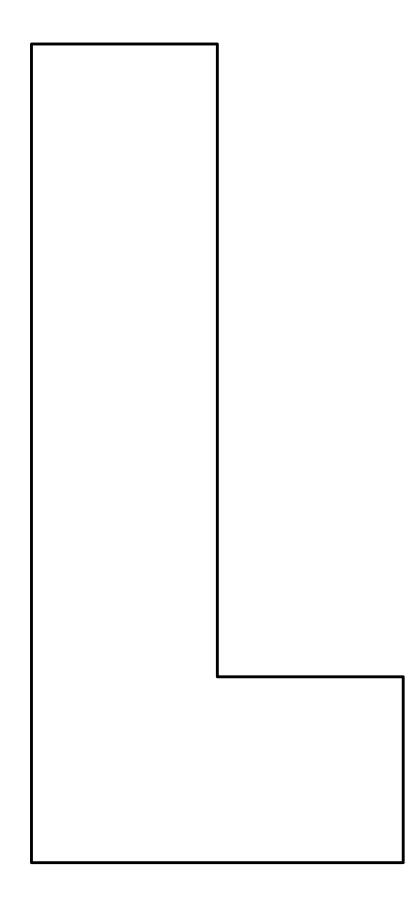


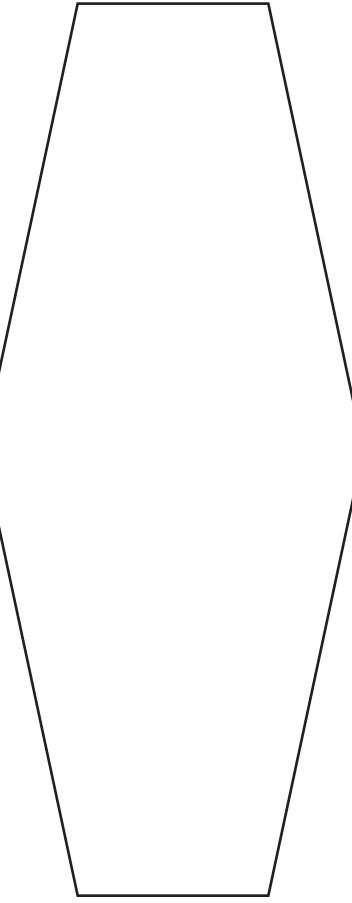
As the wife of British General Augustin Prevost, Ann Prevost was living in Savannah during the battle. Her husband asked the American and French troops to let her and the other women and children in Savannah evacuate. They refused.

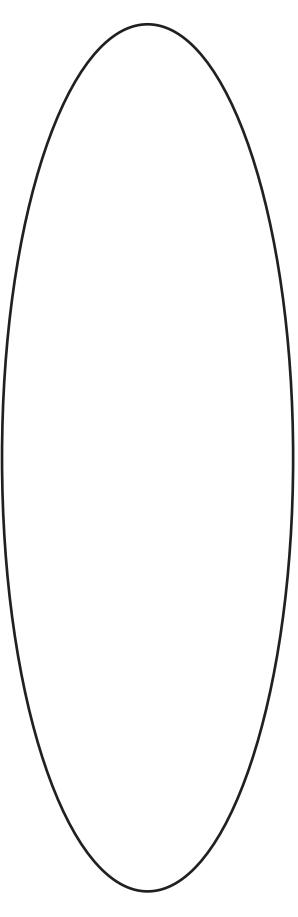


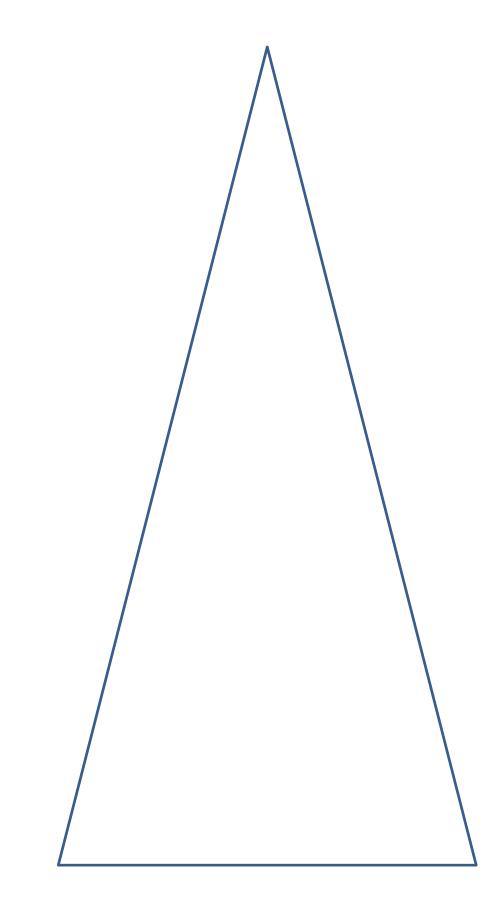
Phillis George was a free black woman who moved to Savannah with her husband David and their three children. When David caught small pox, Phillis supported the family by washing clothes for British soldiers.

# SPY LETTER -Dog-Leg Template









1st-write information inside the template.

There are 300 at the river. But can not cross due to floods. They are building bridges and expect to be inished in three days. By that time they will have reinforcements. There are 4 wagons of supplies. This includes foodstuffs and medicines for those in Carolina.

2nd- Write words around, after removing template.

Dearest Sister,

You were right. There are in Uncle Paxton's barn at least 200 or even 300 at the most, plowshares. Papa Threw some in the river. But most are still there. Remember, you can not cross Papa. The plowshares are rusty due to floods. They can be made useful to the slaves who are building bridges at Harrison's Plantation. And they expect to be Receiving some new clothes if finished in three days. By getting new clothes at that time they will have an entire set Plus one of reinforcements. There are 4 merchants in town waiting on wagons of supplies. This includes Mr. Dobbs for foodstuffs and medicines for those in Mrs. Bee's House in Carolina.

Your Loving Sister, Mary

SPY LETTER - Triangle Template Example 1c

3rd- Put template on to see how it works. Dearest Sister. You were right. There are in Uncle Paxton's barn at least 200 or even 300 at the most, plowshares. Papa Threw some in the river. But most are still there. Remember, you can not cross Rapa. The plowshares are rusty due to floods. They can be made useful to the slaves who are building bridges at Harrison's Plantation. And they expect to be Receiving some new clothes if finished in three days. By getting new clothes at that time they will have an entire set Plus one of reinforcements. There are 4 merchants in town waiting on wagons of supplies. This includes Mr. Dobbs for foodstuffs and medicines for those in Mrs. Bee's House in Carolina. Your Loving Sister, Moury

### SPY LETTER - Worksheet

# Spy Letter Worksheet

In this assignment you will be a spy! Spies lurked on both sides of the American Revolution. A spy could be a washerwoman scrubing soldiers' clothes, while secretly counting the number of soldiers to report to the enemy. Sometimes spies were soldiers in one army secretly working for the other army. There were spies in Savannah on both sides war. Some historical accounts say spies told the British that the Patriots would attack Spring Hill Redoubt and that is why the Americans lost the battle. This has not been proven.

1. Pick a character from the Revolutionary Characters sheets. Your teacher will show you. Imagine you are that person, and are secretly a spy for the other side.

Think:

• What kind of information might be important to a spy during the American Revolution? List ideas:

2. As your spy character, use the back of this page to write 3-5 sentences of important information about the enemy. You can use the information on the Spy Character sheet or make it up. Your sentences might include one or more of the following:

- number of soldiers among enemy troops
- their locations
- health or sickness of troops
- number and types of guns
- amount of ammunition
- military plans for attack
- amount of food available
- plans for attack

3. Now that you have very important spy information, you have to make sure it gets through enemy lines without being discovered. You can do this by making it a spy letter.

• Lay a "Spy Letter Template" over a piece of paper. Put a dot on the paper inside the top of the cut-out shape. Write your 3-5 sentences (from #2 above) inside the cut-out shape. Remove the template. Then write words above and on either side, to make complete sentences. Remember, the enemy should not be able to read the secret message. These sentences must be part of a newsy-letter that will not make the enemy suspicious. For example, if your first sentence in the template is, "There are 300 at the river." (meaning 300 enemy soldiers camped at the river) then you want to build a story around that. Continue writing sentences to finish the letter.

4. Does your letter make sense? Is the secret spy message obvious, or do you need the template to decipher it? Some Revolutionary War spy messages more than 200 years old have survived and are in libraries and archives in America!

# **Build a Fort**

Students will use a portion of a Revolutionary War map of Savannah to study geometry. They will then make their own map using various principals of geometry and military engineering.

### PROCEDURE

1. Brainstorm with students: *If you were going to build a fort, how would you design it?* 

2. Display the "Fort Diagram 1, Examples" to students (using a smart board, overhead projector, or color Xerox copy).

3. Discuss with students: *Why aren't the forts square? Why do they have all those odd angles and parts that jut out?* These angles allow soldiers in the fort to shoot in all directions, so attackers can't safely climb the fort walls and get inside. Discuss how even in the 1700s engineers used extensive knowledge of geometry to build effective forts.

4. Display the "Fort Diagram 2, Savannah" to the class Go over the map image with the students. Point out the dark outline representing the fort. The fort sat on a high bluff overlooking the Savannah River. The bluff is the dark band at the bottom of the map. The river lies below the bluff (toward the bottom of the image). Inside the fort are the Powder Magazine and the Guard house (labeled).

5. Distribute the *Build a Fort Worksheets* (3 pages). Have the class look at "Fort Diagram 2, Savannah" to answer the questions about the angles. (See graphic answers on separate page.) Teacher will use Fort Diagram displayed to model labeling. Students will also label angles on their worksheets.

6. Use the following information when reviewing student worksheets.

### **Objectives:**

Students will:

- recognize and identify types of angles
- observed and identifity parallel and perpendicular lines.
- discover the relationship of these geometric properties to architecture, history, and real-life situations.

**Materials:** Fort Diagram 1, Examples (visual display), Fort Diagram 2 Savannah (visual display), *Build a Fort Worksheets* (3 pages), Build a Fort Worksheet Answers

### Georgia Performanc Standards:

Information Processing Skills 5, 11-12 4th Grade - M4G1b, c; M4P3; M4P4; M4P5; ELA4LSV1 b,c,d, i, j 5th Grade - M5M1b, c, d

- How many right angles do you see in the fort diagram below? 7 (see *Build a Fort Worksheet* answers)
- How many acute angles are there? 3 (see *Build a Fort Worksheet* answers)
- How many obtuse angles can you find? 12 (see *Build a Fort Worksheet* answers)

After asking students about the angles, label the angles on the fort diagram.

Forts can also have parallel lines and perpendicular lines Use Diagram 2 to point out these lines. Then have students follow the instructions on pages 2-3 of their *Build a Fort Worksheets*.

BUILD A FORT- Fort Diagram 1, Examples

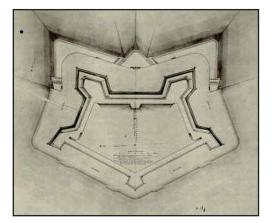


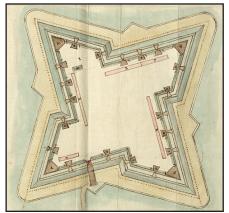
Fort Ticonderoga, New York (Revolutionary War)

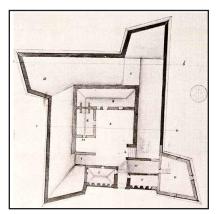


Fort McHenry, Baltimore, Maryland (Post Revolution 1799-1802)

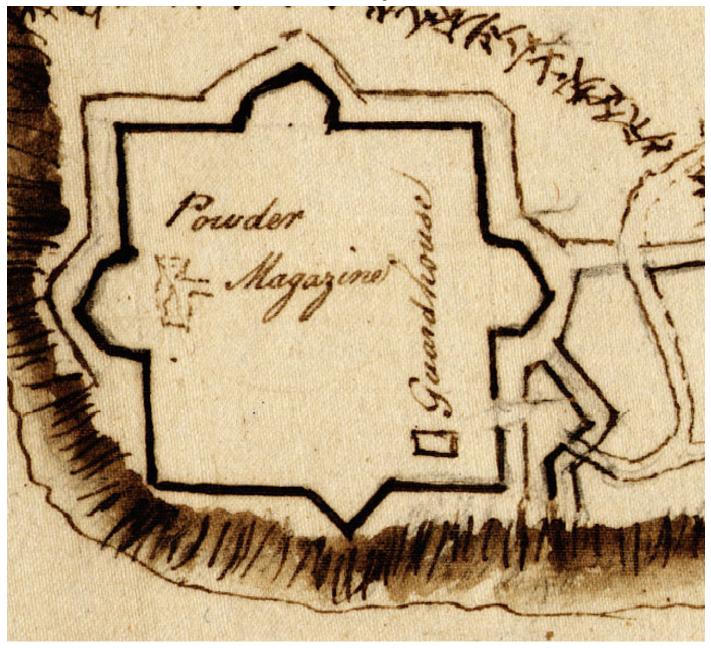
Examples of other fort shapes...

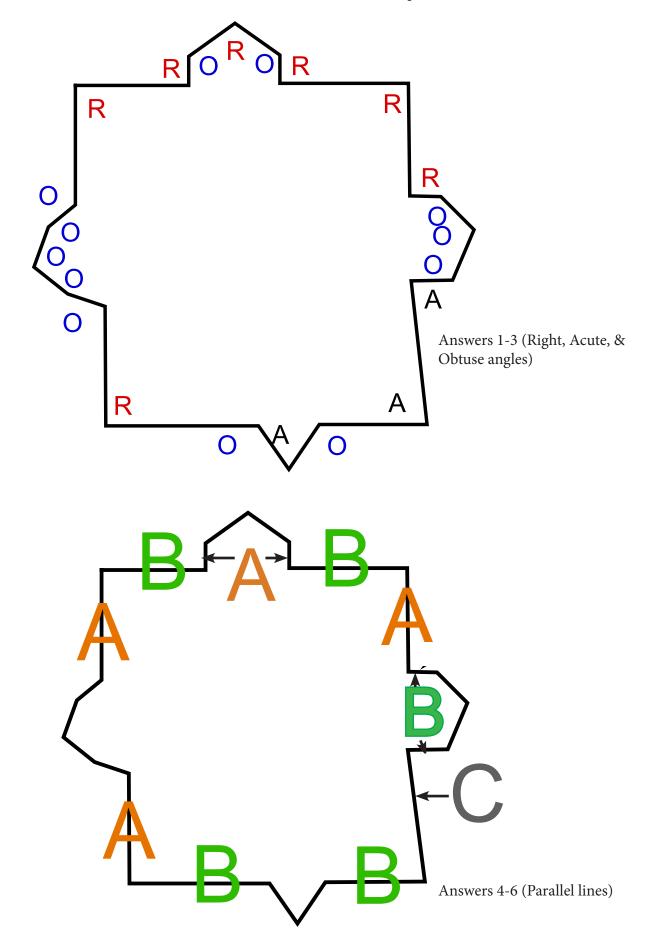


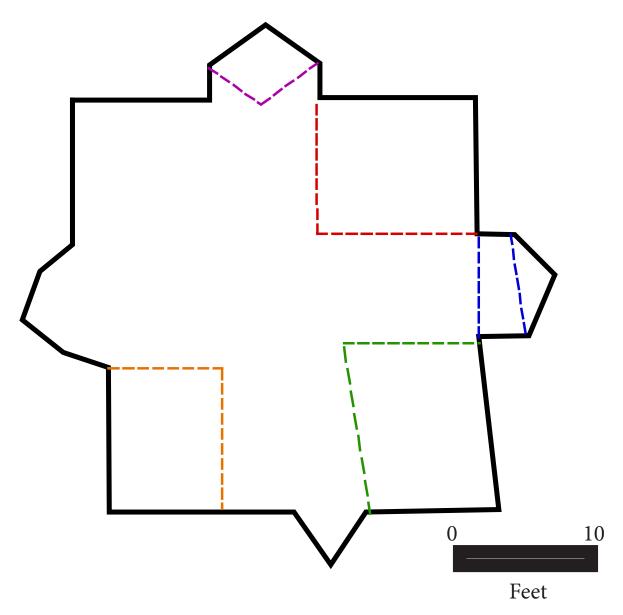




BUILD A FORT - Fort Diagram 2, Savannah







10. Draw dotted lines on the fort outline above to create at least three types of quadrilaterals (parallelograms, squares, rectangles, trapezoids, and rhombi). (A few examples are shown above.)

- Parallelogram (purple)
- Square (red)
- Rectangle (orange)
- Trapezoid (blue)
- Rhombi (green)

11.Measure the main, square part of the fort. What size is its area? Length X Width (30 ft. X 38 ft=1140') BONUS: calculate the area of one of the shapes you dotted in for #10 above. What is the area?

12. Design your own fort on the back of this page. Think of examples you have seen and make up your own shape. Remember to include angles to make a fort that is easier to defend!

### BUILD A FORT - Worksheet p1



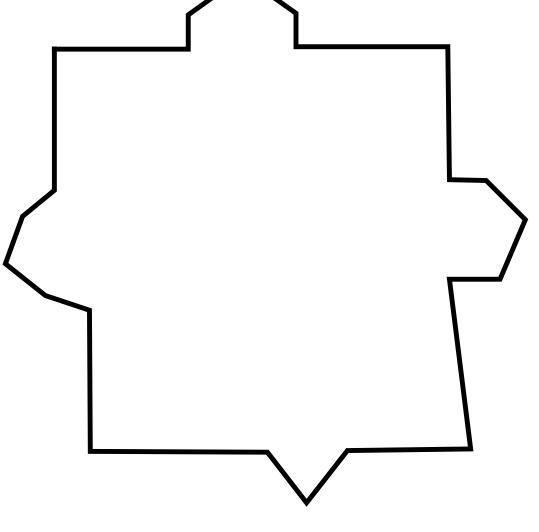
# Build a Fort Student Worksheet p1

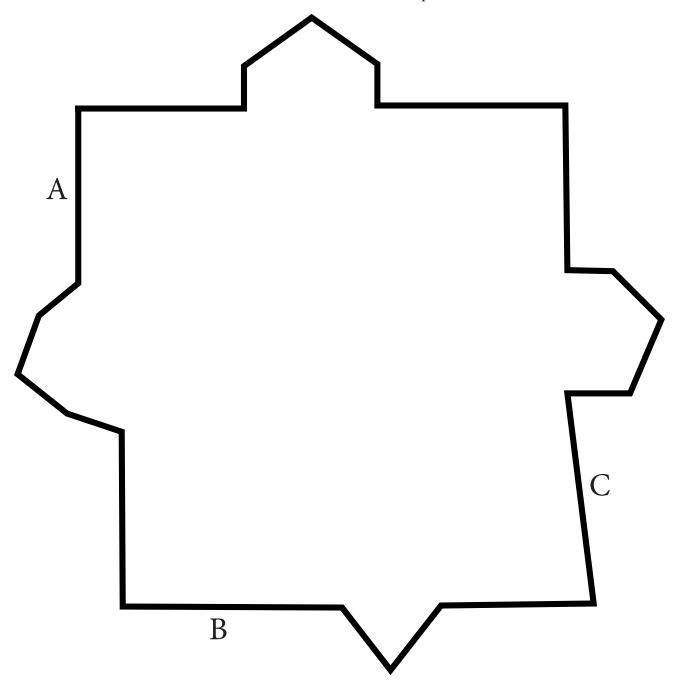
This is part of a Revolutionary War map of Savannah,. This fort sat on a high bluff overlooking the Savannah River. The bluff is the dark band at the bottom of the map. The river lies below the bluff. Do you see the dark outline of the fort? Inside the fort are the Powder Magazine and the Guard house.

Military forts are all about angles! 1. How many right angles do you see in the fort outline below? \_\_\_\_\_ (Label them "R")

2. How many acute angles are there? \_\_\_\_\_ (Label them "A")

3. How many obtuse angles can you find? \_\_\_\_\_ (Label them "O")





Forts can also have parallel lines.

4. Write the letter "A" on all lines on the map above that are parallel to the labeled A line.

5. Write the letter "B" on all lines that are parallel to the labeled B line.

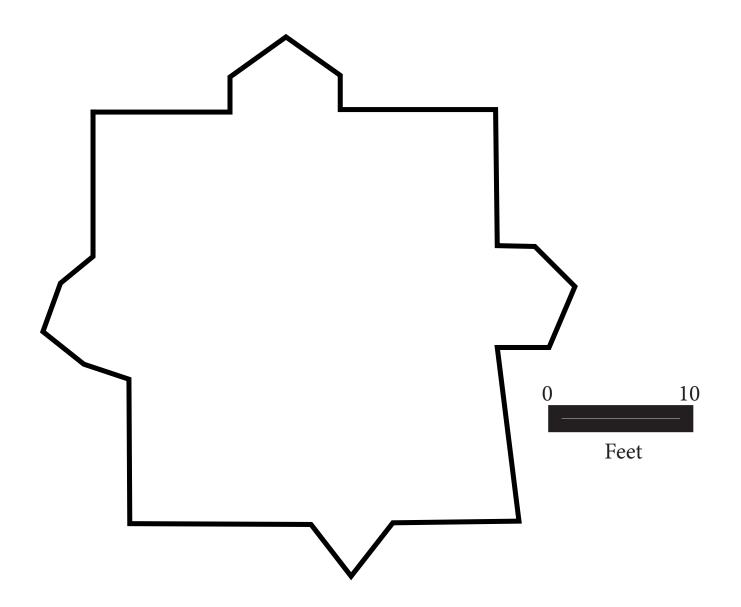
6. Write the letter "C" on all lines that are parallel to the labeled C line.

Forts usually have perpendicular lines, too.

7. "A" lines are perpendicular to \_\_\_\_\_lines.

8. "B" lines are perpendicular to \_\_\_\_\_ lines.

9. "C" lines are perpendicular to \_\_\_\_\_ lines.



10. Draw dotted lines on the fort outline above to create at least three types of quadrilaterals (parallelograms, squares, rectangles, trapezoids, and rhombi).

11.Measure the main, square part of the fort. What size is its area?\_\_\_\_\_

(BONUS: calculate the area of one of the shapes you dotted in for #10 above).

What is the area?\_\_\_\_\_

12. Design your own fort on the back of this page. Think of examples you have seen and make up your own shape. Remember to include angles to make a fort that is easier to defend! Don't forget to include the geography around the fort, such as hills, swamps, the edge of woods, rivers, and roads.

# Learn More About It

### **American Revolution**

*Historic Communities: Fort Life*. By Bobbie Kalman and David Schimpky. 1994. Crabtree, New York, NY. Text and colorful photographs of re-enactors depict forts throughout history.

*Paper Soldiers of the American Revolution*. By Marko Zlatich. 1990. Bellerophon Books, Santa Barbara, CA. Descriptive text accompanies these detailed drawings of paper soldiers that children can cut out and color.

*Phoebe's Secret Diary*. By Joyce Blackburn. 1999. Fort Frederica Association, St. Simons Island, Georgia. Engaging diary about colonial fort life and soldiers, written by a fictitious young girl living at Fort Frederica, Georgia during the mid-1700s.

*Revolutionary Medicine 1700-1800.* By C. Keith Wilbur, M.D. 1980. Globe Pequot Press, Chester, CT. Meticulous sketches and hand-written text examines the level of medicine during this period in history.

*The Revolutionary Soldier 1775-1783.* By C. Keith Wilbur, M.D. 1993. Globe Pequot Press, Old Saybrook, CT. Using the same techniques as his previous book, Wilbur depicts the life of a soldier during the American Revolution in this work.

*The South in the American Revolutionary War: A Fun and Learn Book for Children*. By Dr. Anita Price Davis. 1993. Richard Ruehrwein, Cincinnati, OH. Various worksheets contain activities about the colonial south.

*Story of the American Revolution Coloring Book.* By Peter Copeland. 1988. Dover, Mineola, NY. Detailed graphics and annotated text allow children to color and learn.

### Archeology

*Archaeology's Dig.* Archaeological Institute of American. Bi-monthly magazine for children that includes a parent's guide.

*Archaeology For Young Explorers*. By Patricia Samford and David L. Ribblett. The Colonial Williamsburg Foundation, Williamsburg, VA. Examines colonial Williamsburg through archeology with children.

*Digging Into Archaeology-Hands-On, Minds-On Unit Study.* By Julie Coan. 1999. Critical Thinking Books & Software, Pacific Grove, CA. Several different subjects and skills are used to explore archeology through a variety of activities.

*Frontiers in the Soil: The Archaeology of Georgia*. By Roy Dickens, Jr. & James L. McKinley. Reprinted 2003. Carl Vinson Institute of Government, Athens, GA. [Book and Teachers' Manual now available through The Society for Georgia Archaeology.] A colorful cartoon book that accurately explains archeology.

The Society for Georgia Archaeology www.thesga.org

The Society for American Archaeology www.saa.org

The Society for Historical Archaeology www.sha.org