This unit has been created as an exemplary model for teachers in (re)design of course curricula. An exemplary model unit has undergone a rigorous peer review and jurying process to ensure alignment to selected Delaware Content Standards.

Unit Title:	**Green Cities**
Designed by:	**Maggie Legates, Delaware Geographic Alliance**
	Maureen Greenly, Red Clay Consolidated School District
	Barbara Prillaman, Red Clay Consolidated School District
	This unit is developed through a Teacher Quality Enhancement Project at the University of Delaware.
Content Area:	**Social Studies**
Grade Level:	**7**

Summary of Unit

The enduring goals of geography - to apply analysis of the importance of "where" events occur and the way in which human-environmental relations shape the nature of the earth's surface - are embodied in the first two geography standards. In Standard Three, they are both brought to bear on one of geography's central, enduring subjects, the nature of places. Places may be defined as locations with character. A place occupies a given location on the earth's surface – what may be called its *site*. That site contains a unique combination of physical environmental conditions: climate, landforms, soils and vegetation. It also contains people with distinct cultural attributes who modify the environment to create a distinctive place. Places, however, reflect one additional attribute, their location relative to all other places, or their *situation*. Places close together can expect to have more interaction – trade, information flow, human migration – than places farther apart and thus be more subject to change over time. Isolated places change little. Evaluating a location's site and situation allows identification of those distinctive characteristics that make it a unique place. New York City, originally located on Manhattan Island, has a poor site, bounded by the Hudson and East Rivers that require numerous tunnels and bridges for connection. But its situation is superior, located at the confluence of the Atlantic Ocean and the Hudson River and (later) Erie Canal that gave the city an ability to reach growing 19th century settlements west of the Appalachians in the Ohio river valley. Far surpassing the situation of its rival urban centers, Philadelphia, Boston and Baltimore, it acquired status as the country's largest city which it has never relinquished.

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Delaware Content Standards

- **Geography Standard Three 6-8a:** Students will identify and explain the major cultural patterns of human activity in the world's sub-regions.

Big Ideas

- Places are unique
- Site and Situation
- Cultures Differ in Organization of Space

Enduring Understandings

- Places are unique associations of natural environments and human cultural modifications.
- Concepts of site and situation can explain the uniqueness of places. As site or situation change, so also does the character of a place.

Essential Questions

- What physical and human features make a place culturally unique?
- How do people of different cultures differ in their land use?

Knowledge and Skills

Students will know…

- Physical (climate, landforms, soils, vegetation) and human (economic activities, cultural traditions, demographic patterns) elements of a site, and how such elements can be described and/or mapped, assessed and evaluated, as a basis for decision-making.
- The importance of connections to other places and how the geographic concept of situation affects the lives and livelihood of people who live in a given location
- Cultural preferences influence the ways humans use and organize space within their settlements.

Students will be able to…

- Use observation, analysis of graphics and photos, and other geographic skills to identify physical and human aspects of a site.
- Apply information about human preferences to planning for a settlement.

Transfer Task

This summative assessment is a transfer task that requires students to use knowledge and understandings to perform a task in a new setting or context.

The assessment and scoring guide should be reviewed with students prior to any instruction. Students should do the assessment after the lessons conclude.

Essential Question measured by the transfer task:

- What physical and human features make a place culturally unique?

Prior Knowledge	In this unit you have examined the idea of place. You have learned to identify important human and physical features of a site. You have learned how the geographic situation affects the lives of people in the place. You know that culture affects the way people build and change their neighborhoods, towns and cities.
Problem/Role	You are a city planner (see Appendix 1). Your company would like to get the job of planning a modern city called "Emerald City." Your job will be to help prepare a plan for the new city that will meet the needs of the residents. If your plan is selected, your company will continue to work on this project until the city is finished. Four sites for the residents to choose from have been selected (Appendix 3).
Perspective	The 50,000 people who will be living and working in Emerald City are committed to living a "green" way of life. They value technology as a way of making their life more convenient and reducing their impact on the environment. Emerald City residents like to spend a lot of time outdoors. They enjoy beautiful scenery and green space where they can exercise and gather for social and sports events. Here are their requests: 1. The city should look and feel modern and tech-friendly. 2. The city should have clean, unpolluted air. 3. Most energy should come from wind power, hydroelectric power, or solar power. 4. There should be plenty of room for outdoor activities and sports.
Product	You will prepare a presentation for the bid opening. Each team will get only 3 minutes to explain their plan. Work together to make the most of the time allowed persuading the Emerald City Planner Search Committee that you have the best plan.

	Use Appendix 2 to evaluations of the geographic site, situation, and cultural needs and perspectives of the residents.
Criteria for an Exemplary Response	To be judged excellent, you oral presentation will: 1. Include a clear concise description or "vision" of Emerald City, the place of the future. 2. Explain how you have selected the best spot for the city from the four choices offered. 3. Explain how your design accomplishes the goals of the new residents.

Click here for a Student Rubric.
Click here for a Teacher Rubric.

Student Self-Assessment and Reflection

When students are required to think about their own learning, to articulate what they understand and what they still need to learn, achievement improves.

-Black and William, 1998; Sternberg, 1996; Young, 2000

How a teacher uses the information from assessments determines whether that assessment is formative or summative. Formative assessments should be used to direct learning and instruction and are not intended to be graded.

The Checks for Understanding at the end of each instructional strategy should be used as formative assessment and may be used as writing prompts or as small-group or whole-class discussion. Students should respond to feedback and be given opportunities to improve their work. The rubrics will help teachers frame that feedback.

An interactive notebook or writing log could be used to organize student work and exhibit student growth and reflection.

Lesson One: The Face of a Place

Essential Question

- What physical and human features make a place culturally unique?

Background

Each place on our Earth is unique. Uniqueness is comprised of the human and physical features and how they interact with each others. Physical processes that shape the environment determine how and why cultures may choose to modify/adapt their environment.

Instructional Strategies

Strategy 1: Gathering Information
Concept Development

To give students a mindset for this unit of study, the teacher will read clues orally about different places around the world. The students will guess what place is being described. (For example, "This place has a warm climate. It has a large castle, a main street where there is a parade every day, and many rides and shows." Ask the students to relate to personal experience or advertisements from TV.

Next show the students a set of four or five pictures from around the world. Use numbered post-it notes to mark the locations of the scenes on a world map. Ask the students to match the pictures to the locations. Then discuss with them the most reliable visual clues. (For example, I knew this city was in the tropics because I saw palm trees. Only one of the locations is near the equator.)

Ask the students the following questions:
- What is the best place to take a vacation?
- What place would you most like to visit?
- What is the most famous place in the world?
- What makes it famous?

The teacher should record all responses on the board. Ask the students how these answers can be categorized. This can be accomplished in a whole group setting or small group setting. Student responses should include landmarks, climate, location, human activity, and place.

Use a Think-Pair-Square strategy to introduce new vocabulary, including geographic terms.[1] Afterwards, this pair should group with another pair and check their responses to the vocabulary. The teacher should bring the class together as a whole group to discuss questions and be sure all students have correct responses.

Have students complete the concept development worksheet. Students should pair with another student to share responses from the vocabulary activity to engage in prior knowledge. Afterwards, this pair should group with another pair and check their responses to the vocabulary. The teacher should bring the class together as a whole group to discuss questions and be sure all students have correct responses.

Concept and vocabulary development can be considered prior knowledge. Students should have an understanding of what the words mean as this will enable them to better comprehend the concepts that are being introduced.

Strategy 2: Gathering Information
Categorizing

Have students complete the YOU column in the graphic organizer in order to help them understand physical and cultural characteristics.

The teacher will then show pictures of different places around the world. The students will guess the place being described and record responses on the graphic organizer.[2]

Ask the students the following questions:
- Where is the best place to take a vacation?
- Where is the place you would like to visit the most?
- What is the most famous place in the world? What makes it famous?

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[1] Vocabulary development can be considered prior knowledge. Students should have an understanding of what the words mean as this will enable them to better comprehend the concepts that are being introduced.

Group work is beneficial to students in that it allows them opportunities to work together to construct meaning from a text or task. There are a number of ways in which groups can be determined. These can include:

- o Ability – students are grouped in similar levels based on results of formal or informal assessments
- o Mixed Ability – students are grouped by differing levels of achievement based on assessment measures
- o Flexible – students work in a variety of differently mixed groups specific to a purpose

There are five characteristics that are important to develop when using student groups. *Positive interdependence* is when each member is needed to complete the group task. *Face to face interaction* promotes opportunities to work with others. Although the group will be evaluated on their task, it is necessary for each *individual to be held accountable* for their part. Working with others helps to develop *interpersonal and small group skills* which are necessary not only in school but later in real-life and work-related situations. Lastly, *group processing* is essential for the group to determine what they do well in addition to what they should continue to improve upon.

[2] The use of graphic organizers helps students to organize and focus essential content information and/or vocabulary. When content is shown using diagrams, the information can be maintained by students over a longer period of time. Organizing ideas, facts, and concepts helps to facilitate effective student learning.

The teacher should record all responses on the board. Ask the students how these answers can be categorized. This can be accomplished in a small group setting of 2-3 students.[3] Student responses should include landmarks, climate, location, human activity, and place.

Click here for the Check for Understanding.

Strategy 3: Application
Think-Pair-Square[4]

Have students read this about geographic site.[5] Then have students conduct a Think-Pair-Square strategy using the graphic organizer at the bottom of the reading.

Have students read this about geographic situation.[6] Then have students conduct a Think-Pair-Square strategy using the graphic organizer at the bottom of the reading.

Click here for Check for Understanding #1.

Check for Understanding #2
- What physical and human features make a place culturally unique? Explain your answer with an example.

Rubric
2 – This response gives a valid explanation with an accurate and relevant example.
1 – This response gives a valid explanation with an inaccurate, irrelevant, or no example.

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[4] This activity is built on the foundation of Think/Pair/Share without the class reporting. Then, after Think/Pair/Share takes place the partners team up with another set of partners creating groups of four students. Each group compares & contrasts the two sets of answers or solutions. From the two the group decides on a compromise. The whole class reports out on their decisions.
http://www.wcer.wisc.edu/archive/cl1/CL/doingcl/thinksq.htm
[5] This reading has a lexile measure of 970, appropriate for the Common Core State Standards 6-8 grade cluster.
[6] This reading has a lexile measure of 1070, appropriate for the Common Core State Standards 6-8 grade cluster.

Essential Question

o   How do different cultures change their natural environment to fit their needs?

Background

This section will introduce students to city planning in an historical context. Students will apply basic geographic principles in a variety of similar contexts. Basic vocabulary is introduced and may be reinforced using the following reading passages and strategies.

Instructional Strategies

Strategy 1: Gathering Information
Vocabulary Development

To introduce the main concepts, show the *Green Cities* slideshow from the Delaware Geographic Alliance. This overview provides visual plans for colonial settlements and asks important questions to set the stage for learning.

Have students respond to the questions in the presentation (and above) with a Think-Pair-Share strategy.

Strategy 2: Extending and Refining
Graphic Organizer

In this strategy, students will use a map poster from National Geographic.

The Powhatans were Native Americans who lived in the Chesapeake Bay region of Virginia. The capital city of the Powhatan Nation was Werowocomoco. When the English colonists, led by John Smith, arrived in 1607 they established the settlement Jamestown just 10 miles south of Werowocomoco on the James River.

As people came to America, they found an environment that was not the same as home. The climate was different, there were new plants and animals, and there were people already living in the area. The Native Americans were living in settlements that did not look like English towns and cities. Their ideas were part of their culture.

The colonists brought with them ideas about what towns and cities should look like. These ideas were part of their culture. To understand how culture can affect the plan for a town or city, let's look at some of the first English settlements.

Locate the settlement of Jamestown and Werowocomoco on the National Geographic poster[7] "A World Transformed," using the side titled "When Cultures Collided."

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[7] Please contact Maggie Legates at the Delaware Geographic Alliance to receive copies of this poster.

On this graphic organizer, have students describe the physical and cultural location of each site using the small map insert on the poster.

Place name:	Werewocomoco	Jamestown
Area:	45 acres	1 acre
Land:	a high place near the creek	a low, marshy peninsula
People:	100 people	104 men
Homes:	family homes made of reeds	tents and lean-tos
Jobs:	hunting, fishing, farming	trading making objects to trade farming
Protection:	None open to forest and river	stockade fence cannons

Ask students in a whole group setting to consider:
- How was the site of each settlement unique?
- What are some ways the settlements were similar?

Check for Understanding
- In what ways were the sites of these two settlements the same? How were they different?
- How did the people who lived in these settlements use their space differently?
- Why do you think the English settlement looks so different from the Native American village?

Strategy 3: Extending and Refining
Making Comparisons

Refer to the National Geographic Society poster "When Cultures Collided" to compare the two early settlements. Have students gather and record information about the daily life in each settlement on this graphic organizer.

As students examine the poster and compare the Native American settlement and the English settlement, students should note the many similarities of the physical sites.

Resources were available to both groups of people from forest, land and water. The Native American settlement is dispersed over many acres. Students may not immediately recognize it as a settlement.

Ask students to identify areas or regions within each settlement for trade, for food production, and so on. Students should speculate on the reason for the crowded nature of the Jamestown settlement and identify the stockade fence, cannon and other armaments as evidence that the English colonists were concerned for their safety. They might also point out unsanitary conditions in Jamestown. Students may conclude that English people preferred to live in close quarters while Native Americans preferred privacy and space. Differences in technology may also be noted.

Have students conduct a Think-Pair-Share strategy to respond to the following question:
1. How did the people in each settlement use their environment?

Checks For Understanding
2. Why did the Europeans and Native Americans use the environment differently? Explain your answer with an example.
3. Use the chart below to start your thinking before you respond.

European use of the environment	Native American use of the environment

Rubric

2 – This response gives a valid reason with an accurate and relevant example.

1 – This response gives a valid reason with an inaccurate irrelevant, or no example.

Strategy 4: Application
Paper Pass[8]

Have students [read about the colonial cities of Jamestown and Williamsburg](#).[9] The teacher should write each question below at the top of a separate sheet of oversized poster paper.

- How were the physical features of the Jamestown site different from the Middle Plantation?
- How did the buildings in the new capital fit the needs and cultural ideas of the colonists?
- How did the colonists plan to use the open spaces of the city?
- How did the situation of the new capital of Williamsburg change over time?
- How might the new road and river connections change the jobs and activities of the new capital city?

Divide students into groups of 2-3 and distribute one poster sheet to each group. Have the students respond to the question on the poster sheet. Everyone in the group should have an opportunity to contribute.

After a pre-established period of time (4-5 minutes) the groups pass their sheet clockwise to the next group. Each group will then repeat the process for each question.

Teacher Tip Separate the class in half and then divide students into groups of 2-3. Run this strategy concurrently with each half of the class in order to ensure the group size remains at 2-3 students.

Once a group receives the last question, they are responsible for finding evidence to support or disprove what was written. On the same sheet the group should record page numbers or paragraph numbers where they found the evidence using either their textbook or a reading distributed by the teacher. After the students finish responding, each group will post the papers & present their findings to the class.

[Click here for the Check for Understanding](#).
Teacher note: Students may say the map details cannot be seen. The important thing to note about the map is the straight lines of the streets. This detail is clearly visible.

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[8] Source: Gayle H. Gregory & Carolyn Chapman, *Differentiated Instructional Strategies*, c. 2002.

[9] This reading has a [lexile measure](#) of 970, appropriate for the Common Core State Standards 6-8 grade cluster.

Essential Question

  o   What guides people in their choices when designing a place to live?

Background

This lesson focuses on the efforts of Americans to consciously improve their cities. During the 19th century people flocked to American urban areas, completely overwhelming the early designs. Workers from small towns and farms came to look for work in new factories. Immigrants arrived, too, in ever-growing numbers. Crowded, unsanitary conditions in cities became a concern for many Americans.

The original Green Movement was led by people who wanted to improve the quality of urban life by introducing open space into the crowded urban landscape. The reasons were aesthetic as well as practical. Americans began to generate their own ideas about what a city should look like and what features it needed to meet the needs of ballooning populations. They preferred to build taller buildings, but also to leave open space wherever possible. Students will begin to identify specific city features to meet cultural and economic needs.

Instructional Strategies

Strategy 1: Gathering Information
Graphic Organizer

Use this graphic organizer to determine the level of knowledge students have regarding the targeted vocabulary words. Students have an opportunity to determine if they know each word and their level of knowledge regarding the word. This allows teachers to assess what is already known, what needs to be modified, and what needs to be explicitly taught.

Strategy 2: Extending and Refining
Inside-Outside Circle[10]

In this strategy, students will read more about changing American ideas about city design. Click here for Green Ideas Renew American Cities.[11] Use the questions located within the reading for this strategy.

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[10] Source: Gayle H. Gregory & Lin Kuzmich, *Differentiated Literacy Strategies for Student Growth and Achievement in Grades K-6;* page 65.
[11] This reading has a lexile measure of 980, appropriate for the Common Core State Standards 6-8 grade cluster.

Place students in two circles, each with six or seven students, formed with one circle inside the other. The student on the inside circle interacts with their partner on the outside circle. Then one circle rotates so that each student has a new partner to either discuss the same question or a different question.

Check for Understanding

Imagine that you are Sylvester Judd. You are going to speak at a city council meeting about your ideas.
1) How would you make things better for a person who lives and works in the city?
2) Create a visual representation of your ideas. Use captions to explain your visual representation.

Strategy 3: Extending and Refining
Four-Fold Activity[12]

Distribute the student reading and response sheet, A Little Green History. As students work through the questions and this strategy, they will develop the concept of sustainability.

Have students work in groups of 2-3. Each group should fold a large piece of paper in half twice, and then bend down the upper left corner. When the paper is opened, the creases in the paper have created four rectangular quadrants and a diamond-shaped area in the center.

Have students write sustainability in the center of the diamond. For two minutes, each group should *list* words and/or examples of the concept that come to mind.

Each group should next *rank* the top 3 words or examples of the concept to share with the class.

Finally, have each group complete the *Analogy* section and create an *Illustration* that matches the analogy to share with the class.

Check for Understanding
1. Have students complete the graphic organizer from Strategy 1 by writing the definition of each word in the last column.

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[12] Also known as a Frayer Model. Click here for a sample. Many other variations can be used for what students are expected to complete in the four outer squares. The Vocabulary Word Map asks students to include synonyms and antonyms. http://www.readingquest.org/strat/wordmap.html

Strategy 4: Application
Change over Time

Have students apply the ideas of sustainability (Garden Cities) to the City of Savannah.

Savannah, Georgia, was founded by James Oglethorpe in 1733 as a capital for the new colony. The city plan had alleys, streets, and small parks called "squares." That gave the city a different look from other American cities. The colony's development was assisted by the friendly Yamacraw Indians. As Georgia grew, Savannah was no longer the capital, but it became the main port, exporting goods such as rice and cotton.

After the students have examined the 1734 plan for the city of Savannah, ask them if they think this city was likely to last in the same form. Now have students compare it to the 1818 map of Savannah.

Have students work in pairs with the two maps to complete these tasks.
  • Locate the city's center of business and agricultural activity on each map.
  • List 3-5 observations from the 1734 map.
  • List 3-5 observations from the 1818 map.
  • Draw the settlement in 1734 on the 1818 map.
Students should then respond to these questions about the city in both time periods.
  • What do you think the squares were used for?
  • Where is the agricultural activity in relation to the city center? Why is it located there?

Have each pair of students use this graphic organizer to compare the change over time in Savannah.

Use this comparison chart to compare Savannah to a Garden City described in Strategy 3. Have the students write Garden City in the box titled Concept 1, and write Savannah in the box titled Concept 2.

Project the satellite image of the city of Savannah today. Help the students compare the street patterns and green space that exist in the original part of the city with the historical plans.

Check for Understanding
  ○ What guides people in their choices when designing a place to live? Support your answer with an example.

Rubric
2 – This response gives a valid explanation with an accurate and relevant example.
1 – This response gives a valid explanation with an inaccurate, irrelevant, or no example.

Lesson 4: Green Cities - Today and Tomorrow

Essential Question

   1. How do city planners today hope to make American cities green?

Instructional Strategies

Strategy 1: Gathering Information
Modeling Spatial Organization[13]

Help students understand the use of space within a city by using manipulatives to model various arrangements of buildings, streets and open space.

Provide each student or group of students with a sheet of blank paper and a set of 50 squares (about 1") of a contrasting color. Students will play the role of city planners.

Explain to the students that they will be planning the layout of a city of 50,000 people. Each square will represent 100 residents. The edges of the paper will be the limits of the city. Spaces between the squares may be streets or open space. The students will be asked to arrange the squares four times, each time with a different objective in mind.

Round 1: (Low Profile City) Ask the students to arrange the squares so that each square has equal access to the street level. (No one will need to climb stairs or use elevators.) What is the best arrangement?

Round 2: (Spacey City) Ask the students to arrange the squares to allow for open spaces for recreation – stadiums and playing fields. At least 10 squares should be open for this purpose. Squares may be stacked up to 10 stories high to make room.

Round 3: (Motor City) Ask students to arrange for easy movement of cars and trucks through the city from "north to south" (top of page to bottom) and east to west (side to side). Next distribute 20 squares of a different color representing cars and 5 large squares for parking garages. Each parking garage can hold 4 auto squares.

Round 4: (Play Safe City) Ask students to arrange the squares to provide maximum security for children playing and/or traveling back and forth to school.

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[13] Teacher tip: Snapping digital pictures of the designs students come up with will help keep a record of results.

2. Choose one of the city arrangements you modeled in this lesson. Sketch or represent the city plan you think is best. Then explain why it meets the needs of the residents.

Rubric

2 – This response gives a valid spatial model with an accurate and relevant explanation.

1 – This response gives a valid spatial model with an inaccurate, irrelevant, or no explanation.

Strategy 2: Extending and Refining
Graphic Organizers[14]

Have students work in pairs to read Skyscrapers. Ask students to consider how this type of building design affects the people in the city.

Have the same pair of students read Green Ideas for Cities and Cities of the Future[15] in order to respond to the attached questions.

Check for Understanding

3. How would a city design based on sustainability be different from how cities are designed today? Support your answer with an example.

Rubric

2 – This response gives a valid explanation with an accurate and relevant example.

1 – This response gives a valid explanation with an inaccurate, irrelevant, or no example.

Strategy 3: Application
Visuals

The use of visuals benefits many students. For more difficult concepts to understand, it is vital for students to have a variety of visuals to assist them in better understanding the concepts. It enables students to "see" a concept, giving them clues to assist them in their comprehension.

Show the slides from Green Ideas for Cities and Sustainable Development.

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[14] Graphic organizers are used to assist students to better comprehend information by being able to organize the information into chunks. "Reviewing Pre- and Post-" enables students to predict what they are going to learn about by first accessing and connecting prior knowledge to new information. And then, after learning, return to the "Post-" to demonstrate what they have learned. This is empowering for students to "see" what they have learned by writing about it.

[15] This reading has a lexile measure of 960, appropriate for the Common Core State Standards 6-8 grade cluster.

Have students respond to these questions:

- How are these connected to sustainable development?
- How and why do people continue to change their environment?

- How have environmental movements influenced how people choose to live? Explain your answer with an example.

Rubric

2 – This response gives a valid influence with an accurate and relevant example.

1 – This response gives a valid influence with an inaccurate, irrelevant, or no example.

- **When Cultures Collide** is a National Geographic map that is essential to the second lesson: A Tale of Two Cities. This map provides students with a visual of both the Werowocomoco and Jamestown settlements in which they are able to compare and contrast how each of these cultures use their environment to fit their needs.
- **On the Trail of Captain John Smith: A Jamestown Adventure** is an interactive historical story describing the time line of events. http://kids.nationalgeographic.com/Games/InteractiveAdventures/John-smith
- America in 1607: Jamestown and the Powhatan. Explore the historic Jamestown fort and the Powhatan village of Werowocomoco through this interactive feature at http://ngm.nationalgeographic.com/2007/05/jamestown/jamestown-standalone.
- **United Streaming/ Moments in Time; Jamestown: Against All Odds** http://search.discoveryeducation.com/
- **Werowocomoco Research Project** highlighting information from the Native American perspective at http://powhatan.wm.edu/.

Tips for teachers

1. **Map Reading –** Students should be familiar with the elements of a map – TODAL (Title, Orientation, Date, Author, and Legend). Teachers can help their students to "read" a map by using this process.
2. **Reading Strategies** – There are a number of texts that may be at a higher reading level that what students may be used to or able to comprehend alone. For this reason, teachers can read aloud to students, have partners read together, or allow students to become an expert in one section and share their knowledge with others. Proficient Reading Strategies such as those used in Reciprocal Teaching (predicting, clarifying, questioning, and summarizing) are essential for any students to construct meaning from a text. Teachers should use these to help promote better comprehension in their classes.
3. **Human to Cultural Feature Understanding** – Some students may have difficulty with the transfer of terminology regarding human and cultural features. This can be supported by reviewing and reinforcing vocabulary and examples when presenting various sections of the worksheets and/or texts.
4. **Vocabulary –** Many students will be unfamiliar with much of the terminology introduced in this unit. For that reason there should be a word wall/concept wall in which the vocabulary is present in the classroom. Students must have multiple opportunities to engage with the targeted vocabulary.
5. **Student Grouping** – Although students working in groups does present some challenges it is a vital component of this unit. Students must have opportunities to work with each other to construct meaning. In doing so, they are able to understand more.
6. **Physical Characteristics of a Site (Lesson One)** – Students demonstrated some difficulty when needing to elaborate on the identified physical characteristics. For example, students were able to identify land forms but did not include climate, soil, animal and vegetation details. The teacher should be certain to reinforce all aspects of a site's physical features and not limit their understanding to just land forms.

Directions:
- A) Use the sentences to identify the definition of your new vocabulary.
- B) Cut out the definitions and place them with the word you think matches!
- C) Ask the teacher if your guess is correct. Glue the correct definition with the word.
- C) Working with your group, discuss and record examples of each word.

Concept	Definition	Example
site		
situation		
cultural feature		
physical feature		
unique		
landforms		
landscape		
environment		

DEFINITIONS TO BE CUT OUT AND PASTED
a geographic term referring to the physical and human characteristics at a specific location
characteristics of the earth including landforms, soils, plant and animal life, climatic conditions, etc.
The features of the landscape that are influenced by the culture of the people living there. Examples include languages used, housing styles, religion, economic activities, sports, transportation, and technology.
special; one of a kind
The features of the earth's surface. Examples include mountains and valleys, lakes and rivers, islands and capes.
the circumstances, objects, or conditions by which one is surrounded
observable physical and human features of a place

SENTENCES

The **site** of Cairo, Egypt includes a tropical climate, the Nile River, sand from the Sahara desert, palm trees, and farming in the Nile delta.

Cultural features of American youth would include iPods, cell phones, jeans, scooters, jewelry, music, computers, and attending school.

Physical features of Delaware include the Delaware Bay, humid sub-tropical climate, clay soil, and a variety of vegetation from woodlands to wetlands.

Your personality, hair color, eye color, height, weight, and physical features of your face make you **unique** – there is no one on Earth exactly like you.

Landforms of Delaware include Delaware Bay, Cape Henlopen, coastal plains, Piedmont, Lewes Beach, Brandywine River, Mount Cuba and Pea Patch Island.

Skyscrapers, bridges, are part of the **landscape** of New York City.

The **environment** of a school would include desks, chairs, chalkboards, gymnasium, lunch room, and learning.

Geographic Situation

If you had the chance to select the best seat in the cafeteria, where would it be? Would you prefer to sit near friends, near the entrance, or near the food service line? Are there areas of the cafeteria you would avoid? Why? When you pick a spot in the cafeteria- or the stands at a ballgame, or a parking spot at the mall- based on what is close-by or what is far away, you are judging the geographic *situation*.

The situation of a place helps determine how well it works for people who live there. As a city planner, what are some physical features you might want to have close-by when you are setting up a city? Food and water are the basics, of course. It is easier to have a good water supply close to the city, but often large cities have to bring water from far away in order to meet their needs. Food must often be brought to cities from very distant farms, ranches, dairies and orchards. So it's important for cities to have good connections to places that produce food.

Often cities have special needs for connection. For example, if residents make a lot of money on trade, they need to be close to ports and other cities. If people there make a lot of machinery, they need to be close to iron ore to make steel, and they need to have connections to ship to customers. If people are from a special cultural group, they may value being close to other similar cultural groups.

Write a list of things you would like to have close to your city.
- My city will have a good situation if these things are close-by.

_____
_____
_____
_____

Write a list of things you would like to avoid having near your city.
- My city will have a better situation if these things are far away.

_____
_____
_____
_____

Directions

- Identify **your** cultural and physical features.
- Examine a picture of a landscape and identify cultural and physical features.

	You Draw a picture – use words – use phrases – use sentences	A Place in a picture Draw a picture – use words – use phrases – use sentences
PHYSICAL FEATURES		
CULTURAL FEATURES		

How might your answers about YOURSELF be different than other students?

_____

_____

_____

How might the answers about places in different parts of the world be different?

_____

_____

_____

Read the text below. **Circle** the cultural features from the reading and **<u>underline</u>** the physical features in the reading.

The Inuit People

Inuit means "the people who are alive at this time." Inuits live in northern Canada in a region called Nanavut. This region is bordered by Baffin Bay and the Labrador Sea. Most of the area is frozen and snow-covered for more than half the year. Inuit live in temporary shelters made from snow in the winter – an igloo. During the summer months, when temperatures are above freezing, they live in tents made of animal skins and bones.

Although there are rich deposits of copper, lead, and silver, the lack of paved roads and harsh climate make the development of these resources difficult.

The Inuit have traditionally been hunters and fishers. The typical Inuit diet is high in protein and very high in fat. They hunt from the sea using kayaks and use dog sleds for land transportation. The Inuit believe their environment is tied directly to their way of life.

Check for Understanding

A group of American geographers will be setting up a base camp in the Baffin Bay area. They plan to stay in the area for two years to study the effects of climate change.

- How might their settlement be different from the Inuit settlement? Explain your answer (use terms from the word bank).

WORD BANK

cultural features
physical features
landforms
landscape
environment

_____

_____

_____

_____

_____

_____

_____

Rubric

2 – This response gives a valid difference with an accurate and relevant explanation.

1 – This response gives a valid difference with an inaccurate, irrelevant, or no explanation.

Geographic SITE

Like people, places have their own unique makeup and character. For example, New York City is a very different place from the Sahara Desert in North Africa. Just as humans have physical features, so do places. The physical features for people might include gender and height. Physical features for places might be hilly terrain, dry climate, or red soil. Physical features help to make a place unique. They are part of the ***site.*** Physical features can affect the activities of people. For example, farming is easier on flat plains with plenty of rainfall. It is harder to build homes and other buildings in the mountains. Water and natural resources are easier to find in some locations.

Each site also contains people with distinct cultural attributes. Cultural characteristics for a person might include personal things like hairstyle, clothing and jewelry, language, music choices, education and skills. It also might include family ties, ways of raising children and occupations. All people meet their basic needs for food, clothing, and shelter, but the way they do it is influenced by their culture.

Every site has a unique combination of physical environmental conditions such as climate, landforms, soils, vegetation, and also humans and cultural characteristics. Language, ways of making a living, clothing choices, and use of technology are all examples of human characteristics.

1. Can you think of examples of places where the physical landscape is unique, even unforgettable?

2. Can you think of places where the culture of the people has led them to build unique buildings, or dress in very different styles?

3. Can you describe the physical and human face of this place? Record your answers below.

Site / Place	Unique Physical Characteristics climate landforms soil vegetation	Human Characteristics language(s) job skills clothing technology
_____ , Delaware		

How might a desert town in Arizona look different from a desert town in North Africa? Explain your answer with an example.
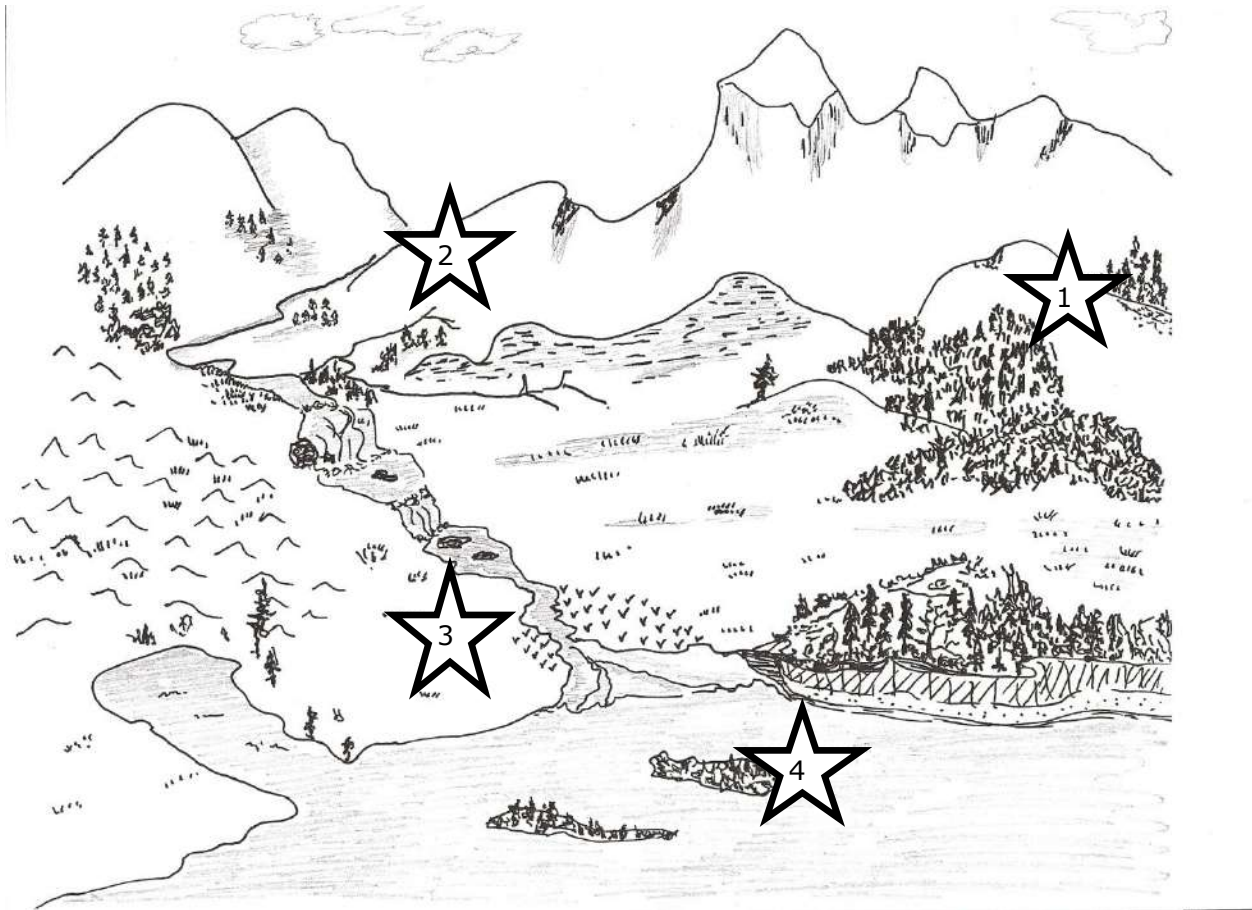
_____

_____

_____

_____

_____

This image shows 4 possible locations for a city.

Which location would be in the **best situation** for each purpose listed below? Use details from the graphic to support your answer.

Purpose	Location #	Details from the graphic to support your answer
Protection from enemy invasion		
Access to resources from mountains or plains		
Trade and commerce with other starred locations		

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- My city will have a better situation if these things are far away.

_____
_____
_____
_____

A TALE OF TWO CITIES

The Powhatans were Native Americans who lived in the Chesapeake Bay region of Virginia. The capital city of the Powhatan Nation was Werowocomoco. When the English colonists, led by John Smith, arrived in 1607 they established the settlement Jamestown just 10 miles south of Werowocomoco on the James River.

Locate the settlement of Jamestown and Werowocomoco on the National Geographic poster "A World Transformed" using the side titled "When Cultures Collided."

Describe the physical and cultural location of each site using the small map insert.

Characteristic	JAMESTOWN	WEROWOCOMOCO
Physical		
Cultural		
BUILD THEIR SETTLEMENTS /VILLAGES		

This map shows the plan for the streets of colonial Williamsburg.

show the planner's ideas for how a city should function (work)? Use the diagram to explain your answer.

_____

_____

_____

_____

A new town in a "new" land

In 1607 Jamestown, Virginia, became the first permanent English settlement in America. The site of Jamestown was located on an island in the James River about five miles from present-day Williamsburg. Life at Jamestown proved difficult for the new colonists. Most were young white men who worked as indentured servants. The settlers were often hungry, and struggled to adapt to the different environment. Native Americans in the area were sometimes helpful; at other times, angry with the colonists. Although many of the settlers suffered and died from illnesses and the difficult conditions, more settlers arrived from England to maintain the colony.

Leaving Jamestown

After the initial struggle to survive in the new colony, the settlers discovered the rich soil of Virginia allowed them to make money. People in Europe clamored for imported tobacco from Virginia. More settlers came, and now there were families and shopkeepers. By the late 1600s, most settlers had moved inland from the marshy area around Jamestown to an area called the Middle Plantation. The Middle Plantation was a more elevated area about five miles inland, and the colonists desired their capital city near their tobacco fields.

In 1699 the new capital was named Williamsburg in honor of King William III. When the city plan was designed, only two things had been built in the area of Williamsburg, a church and the College of William and Mary. Around them was an expansive area to build the new capital city. It would become one of the largest and wealthiest cities in the British colonies in America.

The Plan for Williamsburg

Williamsburg's design was organized according to two traditional British ideas about cities:

1. A city should be the center for trade, education, religion and politics;
2. Large spaces around the public buildings provide a place for public gatherings and make the city look grand.

As the city of Williamsburg grew, many wooden and brick houses were built. Houses were surrounded by gardens to make the city more beautiful. Stores and shops increased as trade with England grew. Some stores sold their own local goods, while others specialized in imported goods from England. Soon the streets were filled with people buying and selling products. Large government buildings made of brick and surrounded by large lawns were placed near the city center. On the borders of the city, large houses and slave quarters were built on tobacco plantations.

Travel and Connections

In the beginning, both Jamestown and Williamsburg relied on connections to England by ship. Essential goods like tools, clothing, and even food came from England. Products made or grown in Virginia were exported to England. But over time, Williamsburg began to depend on trade with other settlements in Virginia. Travelers from western settlements brought furs and agricultural products to sell. They came to do government business. The Virginia colony continued to grow towards the Appalachian Mountains and the Shenandoah Valley. Roads and rivers connected Williamsburg to settlements to the west.

Using what you have learned about Jamestown and Werowocomoco respond to each scenario and support it with evidence.

Which site – Jamestown or Werowocomoco – would be best suited for each person or situation?

PERSON OR SITUATION	Jamestown or Werowocomoco	MY REASON	EVIDENCE
A HOUSEWIFE			
A WARRIOR FOR PROTECTION			
THE ENVIRONMENT			
AGRICULTURAL ACTIVITIES			
MODERN DAY CITY			

HOW and WHERE did the people of the settlement ….	WEROWOCOMOCO	JAMESTOWN
GROW CROPS		
USE TREES AND PLANTS		
USE THE RIVER		
BUILD THEIR SETTLEMENTS/VILLAGES		

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Working as a City Planner

What does a city planner do?

City planners help design cities. Guided by the needs and wants of the residents, a city planner decides some important things about the city. For example, he or she might plan how tall the buildings should be, how wide the streets should be, and the street pattern. Even the number of street signs, and the designs bus stops, lampposts and trash cans go into the plan for the city. Every building must be designed with careful thought. How will people get power and water? How can homes and apartments be located close to public transportation? Aesthetic design, or how things look, is something else the planner must think about. The designer wants the city to be a place where people feel comfortable. To make sure the plan is practical and also pleasing to the people who will live there, a city planner must be creative.

How does a city planner get the job done?

The planner begins by surveying the possible physical sites to select the right one. Then he studies the people who will live and work there. Demographic, economic, and environmental studies must be completed to assess the needs of the community. The planner also asks people for their opinions. When all the information is gathered, a planner creates maps and designs. People can look at these general plans and suggest changes. Then the city planner works with architects to plan for the construction of bridges, radio and telephone towers, and other infrastructure such as roads.

Adapted Text - http://www.princetonreview.com/Careers.aspx?cid=162

Use this form to evaluate each of the four land parcels that are possible building sites for Emerald City.   You will need to use a separate form for each parcel.

Parcel #	Physical Characteristics	Can be used "as is"	Must be changed	Problems or Notes
	Land and soil conditions			
	Climate			
	Natural resources			
	Outdoor space and Scenery			

Student reflection:

Which parcel would be your personal choice for a place to live? Explain your answer.

_____

_____

_____

Evaluating the Human Characteristics of the Site

Now read below the information you have been given about the people who want to move to Emerald City.

The 50,000 people who will be living and working in Emerald City are committed to living a "green" way of life. They value technology as a way of making their life more convenient and reducing their impact on the environment. Emerald City residents like to spend a lot of time outdoors. They enjoy beautiful scenery and green space where they can exercise and gather for social and sports events.

Here are their requests:
- The city should look and feel modern and up-to-date.
- The city should have clean, unpolluted air.
- Most energy should come from wind power, hydroelectric power, or solar power.
- There should be plenty of room for outdoor activities and sports.

Use the graphic organizer below to evaluate the human characteristics of the site. Some facts have been added for you to get you started.

HUMAN FEATURES	Facts from the reading	What facilities should be included?	Research needed
Facts about the people	50,000 residents	Homes for 50,000 people	What age groups will be the largest?
Cultural values of the people			
Activities of the people			

The **geographic situation** of Emerald City will be important, too. As a planner you should know three facts.

- On the other side of the mountains is a large desert. Few people live there.
- There are six coastal cities to the north, or to the right, of Land Parcel 4. All of these cities are factory towns with lumber mills and refineries.
- The winds in this area usually blow from west to east.

How might these facts affect your choice of the best spot for Emerald City? Explain your answer with an example.

_____

_____

_____

_____

_____

Now that you have completed your evaluation of the physical and human aspects of the **geographic site**, and you have also considered the **geographic situation,** it is time to make a decision where to build the city and begin the preliminary plan.

I choose Land Parcel _____.

Part II - Planning Emerald City

Use the sketch of the land parcel you selected, your physical and human site evaluations, and your thoughts about the geographic situation to plan Emerald City.

Combine all your ideas in a map or graphic. Be sure to label the important features.

Remember you will be presenting your ideas to the search committee. While you may spend many hours working on the plan, you will have only three minutes to get your ideas across.

Site 1

Site 2

Site 3

Site 4
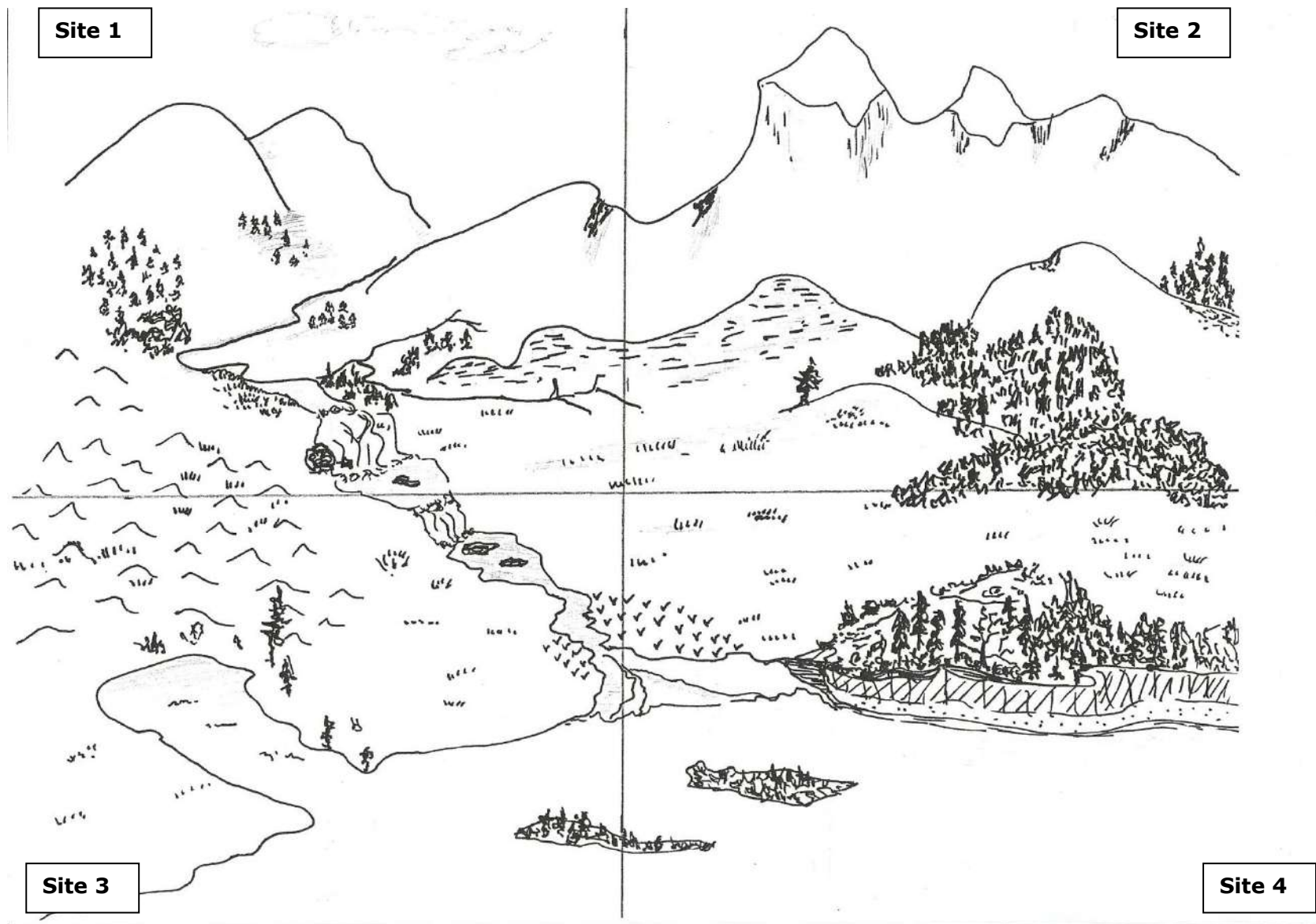
Site 1

This mountain valley will be the perfect place for your new city. Residents can escape the summer heat and will enjoy the beautiful mountain landscape. Rivers and a waterfall might be put to work to make electricity, and sportsmen will enjoy fishing and hunting. Flooding in the valleys and lowlands can be a problem occasionally, especially after storms and in the spring when the snow melts in the mountains.

Elevation: 700-1800 ft

Average Temperatures:
    Summer 55˚-80˚ F
    Winter 20˚-50˚ F

- Soils: Rocky with erosion along streams
- Land features: Steep hillsides with a narrow river valley and a flat area at the base of the hills with good cropland
- Water features: Three fast-moving rivers come together before a waterfall. Stream flows are heavy after storms and in spring when snow melts in the hills.
- Vegetation: Heavily forested at lower elevations and a natural meadow near the streams
- Animal life: Abundant fish, deer and other small game

Site 2

If you choose this site, your city will be high above all the rest. The scenery is beautiful, and the mountain climate makes skiing and other winter sports possible. Hunting is also a possibility. The benefits of this area will be worth the expense of building roads and transporting building materials. In the mountains, mineral deposits have already been discovered - including silver and lead - and there may be more!

Elevation: 1000-5000 ft.

Average Temperatures:
    Summer 30˚-74˚ F
    Winter 10˚-35˚ F

- Soils: Rocky, including granite and shale. Deposits of coal, small deposits of silver and lead.
- Water features: A few small mountain streams
- Vegetation: Heavily forested at lower elevations,
- Animal life: Deer, elk, bears and other game animals; a few sightings of mountain lions in recent years.

Site 3

Stay connected with the rest of the world by building a harbor city on this site. Residents will enjoy the mild climate in winter. Building and water travel in this area will be easy. It will be easy to plan around the fact that low-lying coastal areas can sometimes experience damage from wind, rain and storm surges from coastal storms.

Elevation: Sea level - 700 ft

Average Temperatures:

Summer 55˚-85˚ F

Winter 28˚-65˚ F

- Soils: Clay deposits and sandy soils with rocky base
- Land features: Low hills with some flat meadowland in eastern portion. Marshy area near the coast.
- Water features: River with small islands. Tide lands at mouth of river. Deep water harbor.
- Vegetation: Hardwood trees and shrubs. Marsh grass in low areas.
- Animal life: Some small animals, fresh water fish in rivers, saltwater fish along coast.

Site 4

Residents will enjoy the options created by the varied environments. Offshore islands, beautiful wooded areas and natural meadows contrast with the marshland. Perched on the cliffs, your city will be protected from coastal storms. Mosquitoes will only be a passing summer problem.

Elevation: Sea level – 1000 ft

Average Temperatures:

Summer 55˚-85˚ F

Winter 28˚-63˚ F

- Soils: Sandy soils with clay in marshy areas
- Land features: Mostly flat coastal plain with gentle hills in the interior. Erosion has caused a steep cliff along part of the coastline. Two small islands off shore.
- Water features: No rivers. Shallow water between coast and islands.
- Vegetation: Woodland covers about half the land area and both islands. Marshy land near the river. Some natural meadow.
- Animal life: Muskrats in the marsh. Deer, rabbits and small game.

NOTES:

Green Cities
Transfer Task
Student Rubric

Scoring Category This exhibit provides evidence that …	Score Point 3	Score Point 2	Score Point 1
I can read maps, charts and geography texts to get the information I need. • Maps, Charts, Text	I can read geographic sources to get information.	I can read two kinds of geographic sources to find information.	I can read one geographic source to find information.
I can identify natural features of a site and tell how people could use them OR how people might have to change them in order to live in a place.	I can identify at least two natural features and their effects on the lives of people in a place.	I can identify one natural feature and its effects on the lives of people in a place.	I can identify at least one natural feature but cannot relate it to effects on the lives of people.
I can identify human or cultural characteristics of a site and explain how they affect a landscape.	I can identify at least two human or cultural characteristics and explain how they affect the landscape of the place.	I can identify at least one human or cultural characteristic and explain how it affect the landscape of the place.	I can identify at least one human or cultural characteristics but cannot explain its effect on the landscape of the place.
I can identify ways the geographic situation of a place (its location in relation to other places) might affect the lives of people in a place.	I can identify two ways the geographic situation of a place might affect the lives of people in a place.	I can identify one way the geographic situation of a place might affect the lives of people in a place.	I cannot identify or explain how the geographic situation of a place might affect the lives of people in a place.
I understand and apply geographic terms and concepts related to places. • Site, Landscape, Physical and Human Characteristics, Situation, Environment	I always use geographic terms and concepts correctly.	I sometimes use geographic terms and concepts correctly.	I misused or left out two or more of the key terms or geographic concepts.
I represented geographic ideas and information about place through graphics.	I used map elements (TODAL) and mapping tools to construct a map or graphic to represent my ideas. Included clear labels and a legend or key.	I used labels and map elements and tools to construct a map, although some are left out or unclear.	I used a map or graphic to represent ideas, but most key elements are missing or used incorrectly.
I included specific features in my city design to match physical and human characteristics of the site.	I included 3 specific features in my city (buildings or facilities) designed to match physical and human characteristics of the site.	I included 2 specific features in my city design to match physical and human characteristics of the site.	I included at least one specific feature in my city design to match physical and human characteristics of the site.

Green Cities
Transfer Task
Teacher Rubric

Scoring Category This exhibit provides evidence that the student …	Score Point 3	Score Point 2	Score Point 1
Uses geographic sources to extract information relevant to the question or problem.	Extracts relevant information from a variety of geographic sources. (maps, journals, text, charts and other geo-graphics)	Extracts relevant information from two or more geographic sources.	Extracts relevant information from only one geographic source.
Identifies natural features of a site and ways people might use or modify them in order to live in a place.	Identifies at least two natural features of a site and ways people might use or modify them in order to live in a place.	Identifies one natural feature of a site and ways people might use or modify it in order to live in a place.	Identifies natural features of a site but cannot clearly explain how people might use or modify them in order to live in a place.
Identifies human or cultural characteristics of a site and explains how they affect a landscape.	Identifies at least two human or cultural characteristics of a site and explains how they affect a landscape.	Identifies at least one human or cultural characteristics of a site and explains how they affect a landscape.	Identifies human or cultural characteristics of a site but cannot clearly and consistently relate them to landscape features.
Identifies ways the geographic situation of a place (its location in relation to other places) might affect the lives of people in a place.	Identifies two ways the lives of people in a place might be affected by its geographic situation.	Identifies one way the lives of people in a place might be affected by its geographic situation.	Cannot identify or explain how the lives of people in a place might be affected by its geographic situation
Understands and applies geographic terms and concepts related to *place* (Site, landscape, Physical and human characteristics, situation)	Geographic terms and concepts are **accurately and consistently used** and applied throughout the presentation.	Geographic terms and principles are generally used with success, but use and application are inconsistent.	Two or more key terms or geographic principles are omitted or applied incorrectly.
Geographic ideas and information are represented through graphics.	Uses appropriate techniques and tools to construct a map or appropriate graphic to represent ideas including legend or key.	Uses some techniques and tools to construct a map or appropriate graphic to represent ideas, but some elements are unclear or undefined.	Attempts to construct a map or appropriate graphic to represent ideas, but some key elements are missing or incorrectly applied.
Exhibit relates the requirements of physical and human characteristics of the site and the geographic situation to a plan for a city.	City plan includes at least three facilities or buildings that clearly relate to the physical characteristics of the site and/or human or cultural aspects of the site.	City plan includes at least two facilities or buildings that clearly relate to the physical characteristics of the site and/or human or cultural aspects of the site.	City plan includes at least one facility or buildings that clearly relate to the physical characteristics of the site and/or human or cultural aspects of the site.

Green Cities
Transfer Task

Congratulations, you have graduated from college! You have started your first job as a city planner. Your company would like to get the job of planning a modern city called "Emerald City." You will work with a team to put together a proposal for the new city. The exact location of the Emerald City has not been decided.

Your job will be to complete four steps:

- Complete the site evaluation.
- Select a good location for the city.
- Do a preliminary city plan complete with a drawing.
- Present your plan to the Search Committee.

I am a City Planner

Read the background information about your new job. Complete the graphic organizer below.

My Responsibilities	My Thoughts

View the sites that are now open for development. Notice that there are four possible sites for your city.
Look carefully at the site map and read the description for each one.

Green Cities
Transfer Task

Select one of the sites for your city and answer the questions below.
- Evaluate the physical features on the site map. What features make this site unique?
- List the physical features of the site you have chosen. What are the advantages/disadvantages of each physical feature when planning your city?

PHYSICAL FEATURES	ADVANTAGES	DISADVANTAGES

Choose 5 -10 human features that are essential for the development of a successful city.
- Explain why you chose this location.
- What was important when choosing this location?
- How was the environment modified by your choice?

HUMAN FEATURES	WHY DID YOU CHOOSE THIS LOCATION?	WHAT WAS AN IMPORTANT FACTOR YOU CONSIDERED WHEN CHOOSING THIS LOCATION?	HOW WAS THE ENVIRONMENT CHANGED OR AFFECTED BY THIS CHOICE?

Create your city plan by using the information provided and your rubric.

Read the word in the table below. Place an X in the space that represents your knowledge of the word.

Then complete the **Idea** column on the right.

Word	Know it well	Know something about it; can relate	Have seen or heard the word before	Do not know the word		Idea What do I think the word means?	Definition
site							
situation							
urban							
city planning							
immigrants							
sustainable							
environmentalist							

Green Ideas Renew American Cities

The first city planners of places like Philadelphia, Richmond, and Boston were thinking small: the cities they planned could meet the needs of only a few hundred people. American cities began to grow very quickly, as immigrants and workers from small towns and farms came to look for work in new factories. As population increased between 1700 and 1800, overcrowding of urban areas made cities unpleasant places to live and work.

How would overcrowding of urban areas made cities unpleasant places to live and work?

_____

_____

_____

_____

_____

_____

People living in the city wanted to be near to nature. In the 1800s some Americans wanted to make the cities better.

**Sylvester Judd (1813 – 1853)
An American novelist**

Sylvester Judd was a writer who had different ideas about cities. He thought that cities were too crowded, and that living and working in these places was unhealthy and stressful. He believed that city plans should have more open space, patterned after the design of smaller farms and villages.

Here are his ideas for planning a good city:
* Churches and schools should be the most noticeable buildings, and have large spaces around them.
* Every building should be 30 feet from the street.
* There should be large open areas, ranging in size from twenty to fifty acres.
* There should be many trees, single family houses, and barns.

According to Sylvester Judd, "there should be trees in every street, -- trees about the markets, trees in front of shops, and on the docks, and shading the factories."

Sylvester Judd did not like the fast-paced growth of east coast cities. Many people supported new projects to include open space in cities - like the building of Central Park in New York City. But at the same time, buildings became taller, so cities continued to become denser.

How did Sylvester Judd want to change cities?

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Why might open space and trees be an important part of a city plan?

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_____

A Little Green History

The first settlements in America were *sustainable*. Native American villages were not crowded. They had small populations and included space for growing and gathering food, making needed items, and activities like worship and government. They used some natural resources, but most of them were replaced by nature.

What do you think the word "sustainable" means?

_____

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Early European American cities were also small, but they were sometimes crowded. Often they depended on trade to get enough food or resources.

Do you think European American cities were sustainable?

_____

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Americans began to settle farther inland. They set up farms and began to produce large harvests. In the 1800s machines began to make farm work easier. Fewer workers were needed in the country. At the same time, jobs in city factories became available. The cities began to get bigger and even more crowded.

Underline two reasons why people moved to the cities.

Garden Cities

In the mid-1800s, people called environmentalists began to talk about ways to make cities better. Environmentalists wanted to protect the natural environment. Ebenezer Howard explained a new idea called the *"Garden City."* In his plan, cities would be made up of *neighborhoods* that allowed everyone to be close to green spaces. Find the Green Belts on the city plan below.
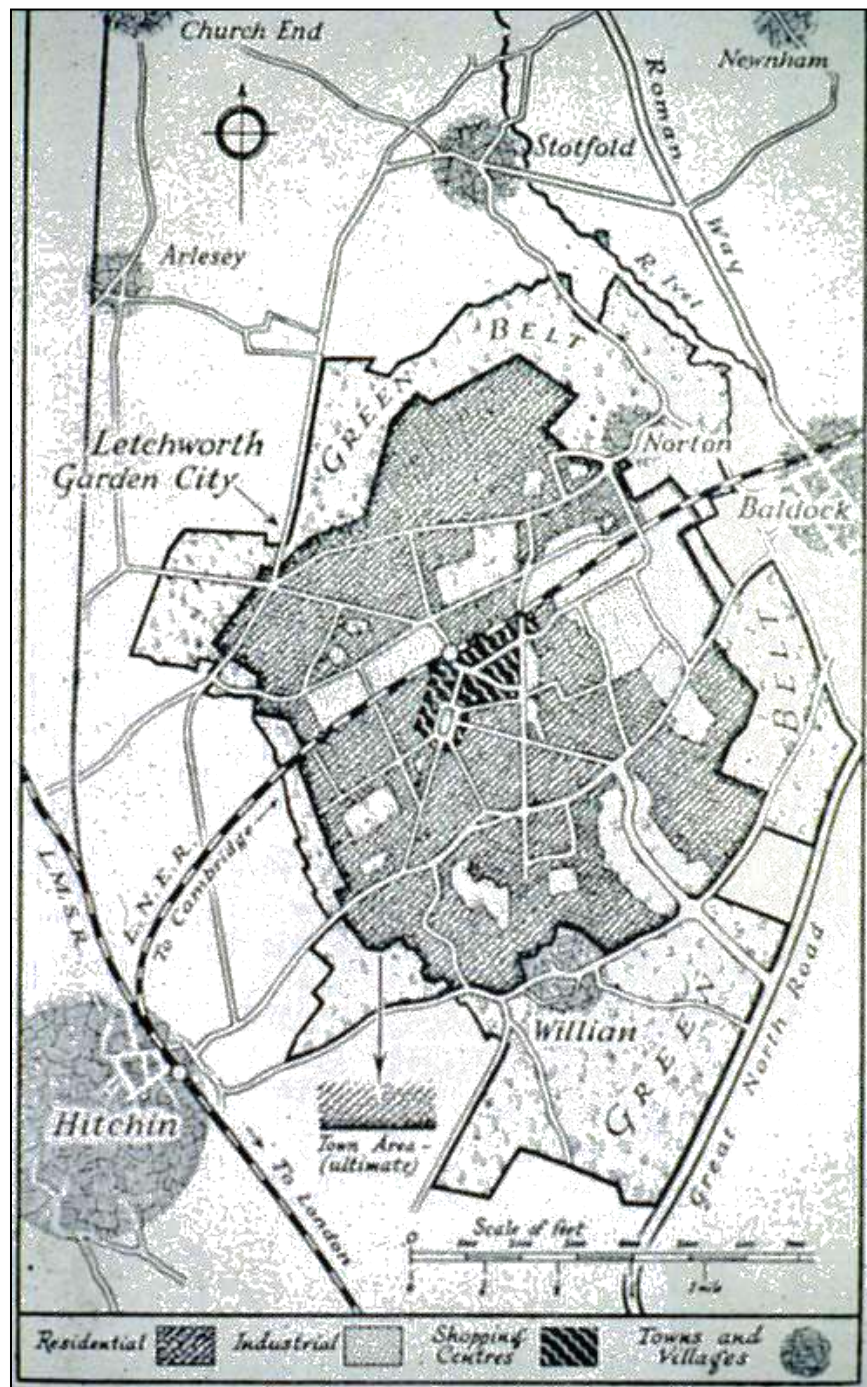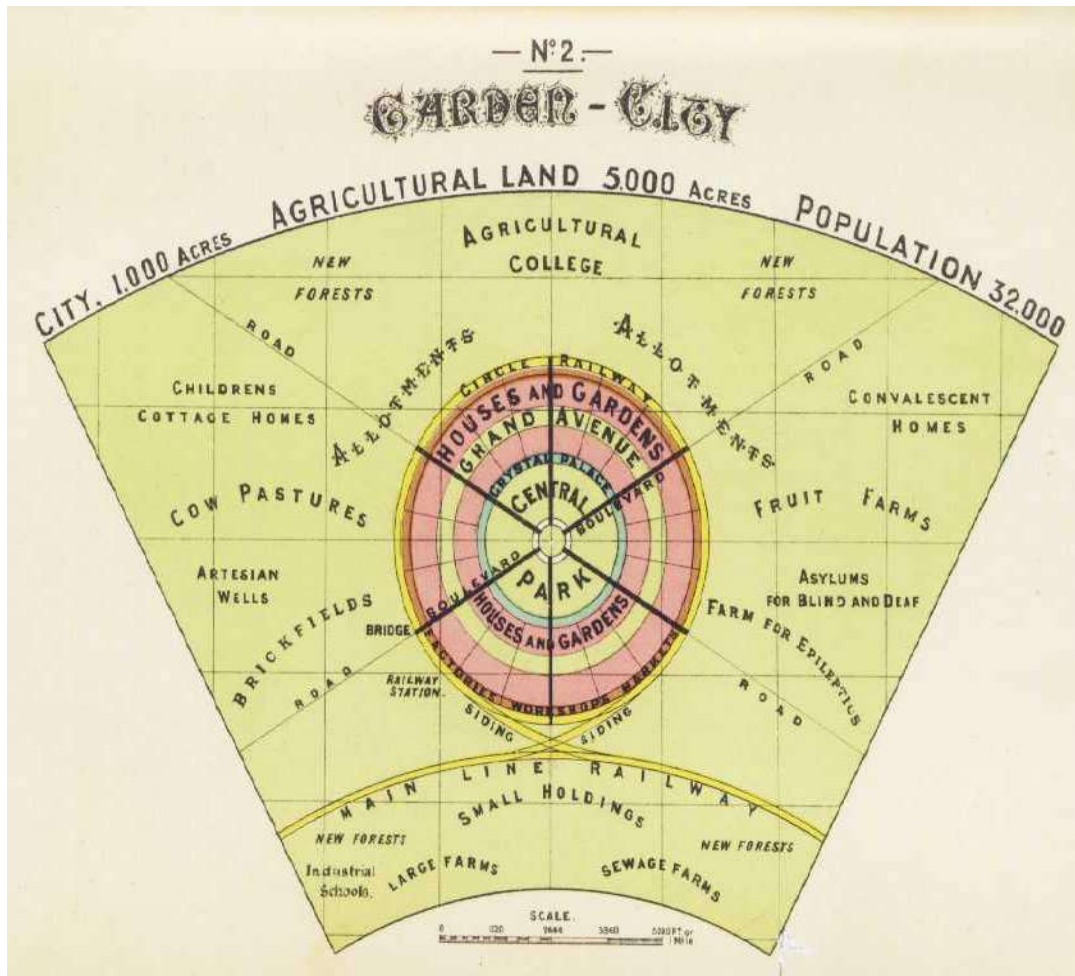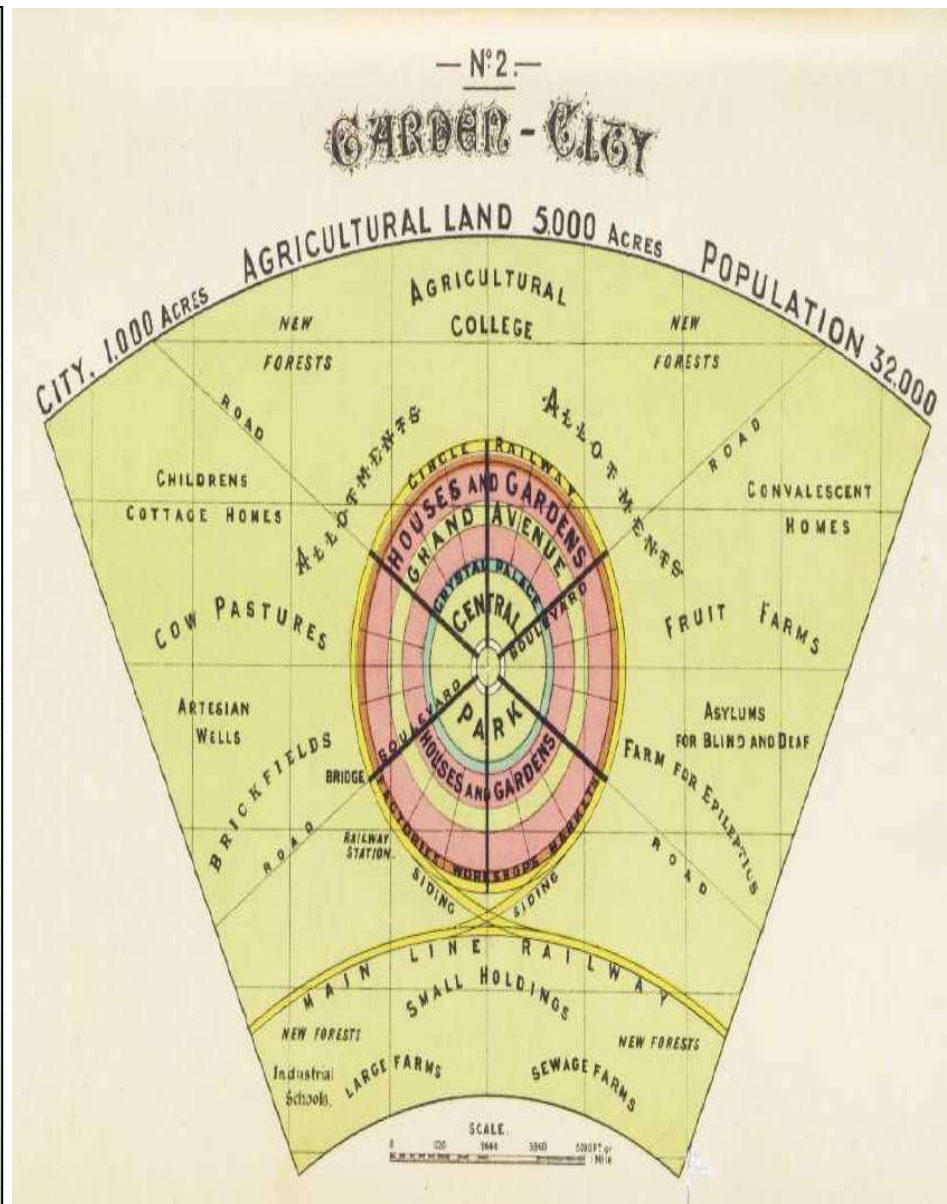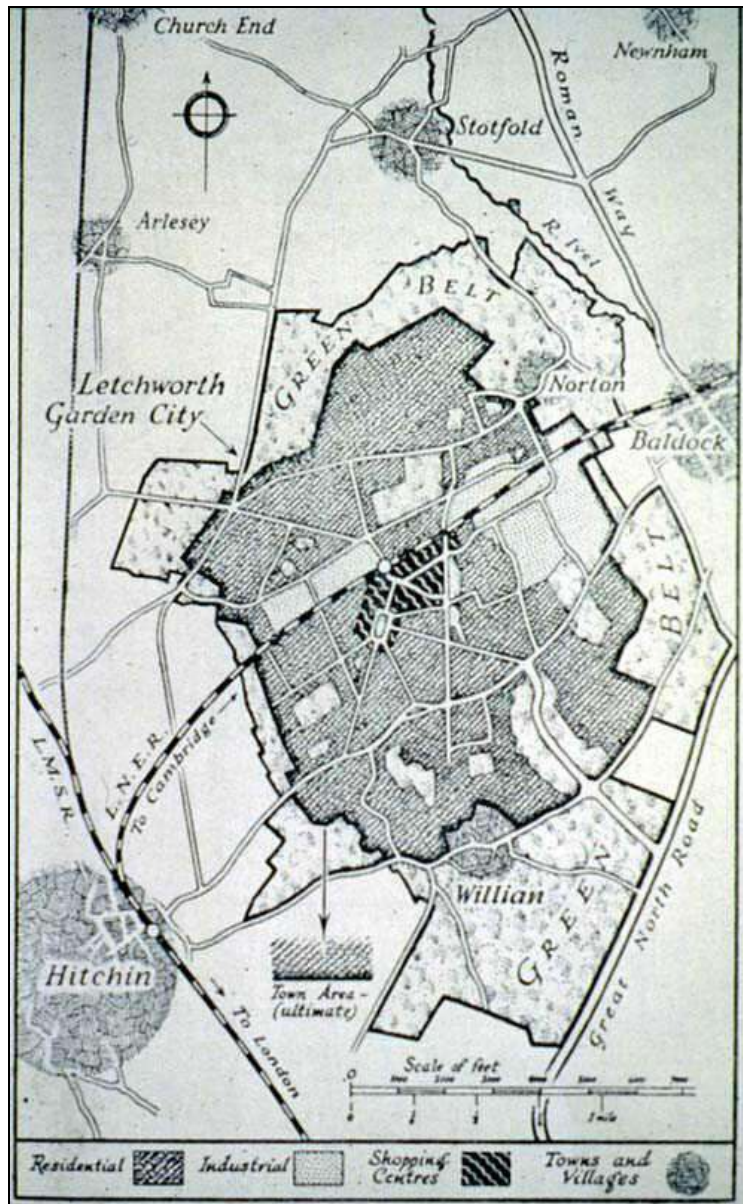
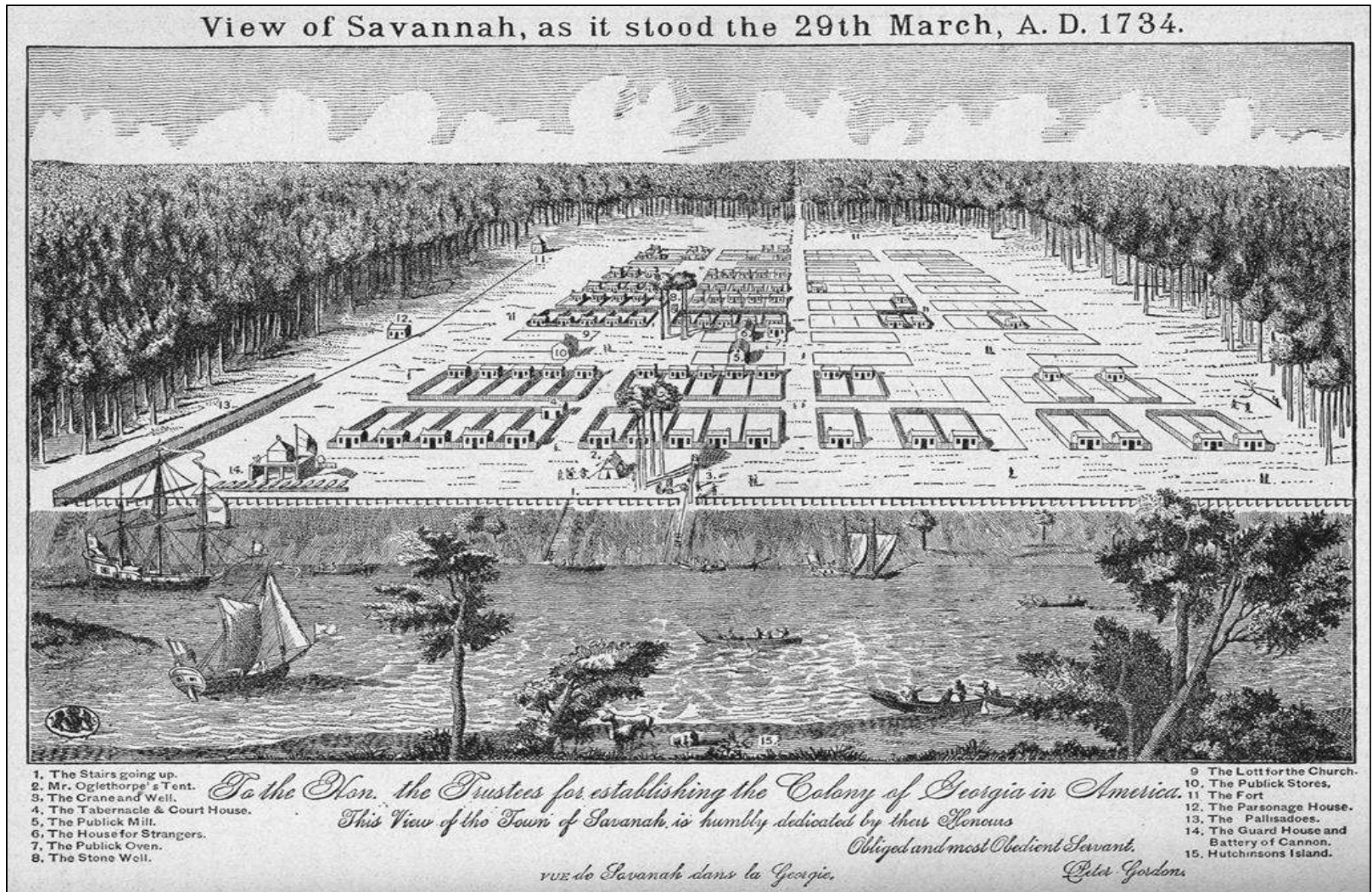What would be the advantages and disadvantages to living in Ebenezer Howard's Garden City?

Advantages	Disadvantages

View of Savannah, as it stood the 29th March, A.D. 1734.

1. The Stairs going up.
2. Mr. Oglethorpe' Tent.
3. The Crane and Well.
4. The Tabernacle & Court House.
5. The Publick Mill.
6. The House for Strangers.
7. The Publick Oven.
8. The Stone Well.
9. The Lott for the Church.
10. The Publick Stores.
11. The Fort
12. The Parsonage House.
13. The Pallisadoes.
14. The Guard House and Battery of Cannon.
15. Hutchinsons Island.

To the Hon. the Trustees for establishing the Colony of Georgia in America.
This View of the Town of Savanah is humbly dedicated by their Honours
Obliged and most Obedient Servant.
Peter Gordon.

vue de Savanah dans la Georgie.

PLAN of the CITY & HARBOUR of SAVANNAH, in Chatham County, State of GEORGIA. A.D. 1818.

Compare / Contrast With Summary

Concept 1	Concept 2

How Alike?

_____

_____

_____

How Different?

With Regard To

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
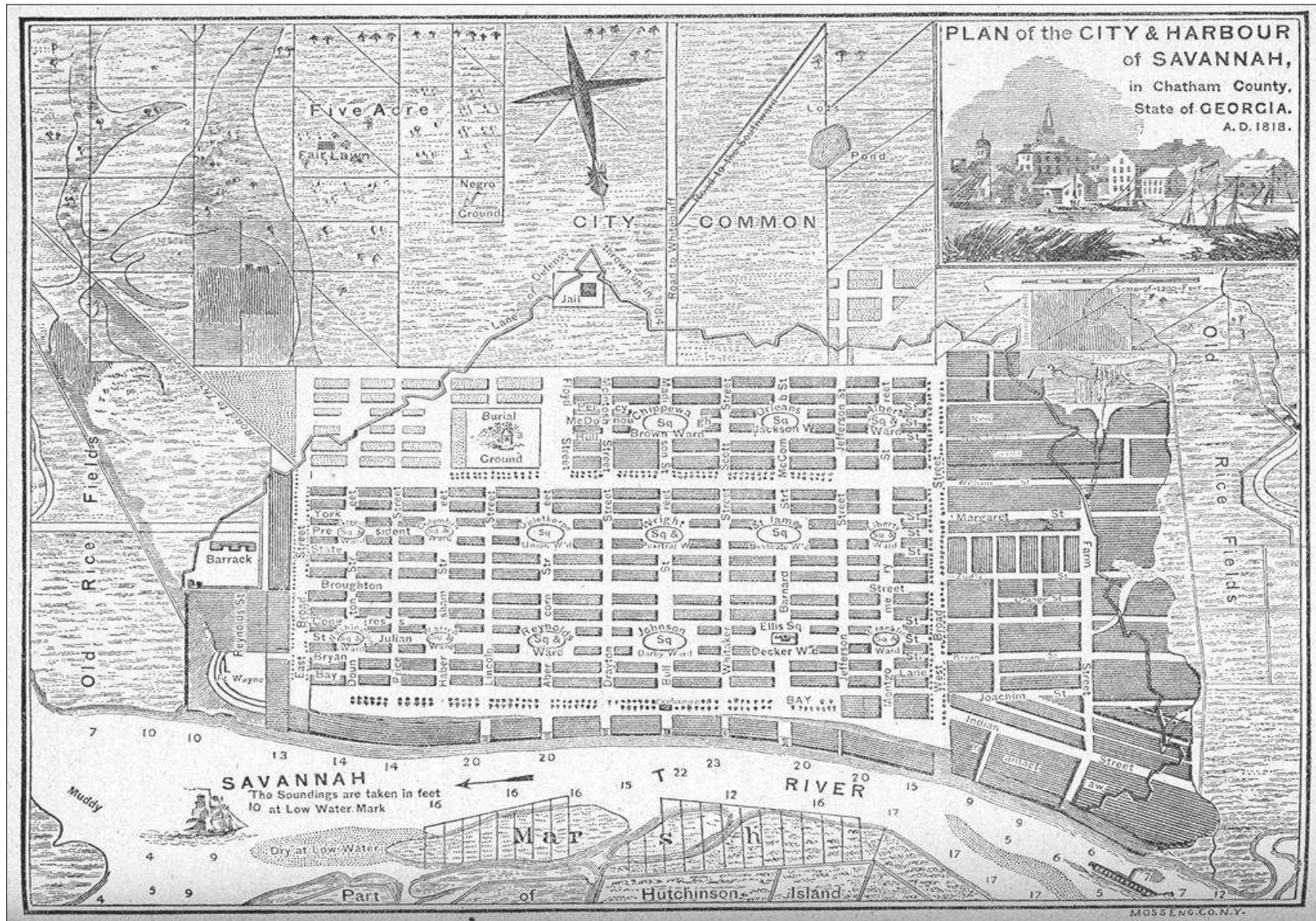
	Savannah 1734	Savannah in 1818	Savannah today
Physical Features			
Human Interaction (Explain the reasons for change)			
Other important or interesting information			

Savannah!

Savannah, Georgia was founded by James Oglethorpe in 1733 as a capital for the new colony. The city plan had alleys, streets, and small parks called "squares." That gave the city a different look from other American cities. The colony's development was assisted by the friendly Yamacraw Indians. As Georgia grew, Savannah was no longer the capital, but it became the main port, exporting goods such as rice and cotton.

View of Savannah, as it stood the 29th March, A. D. 1734.

PLAN of the CITY & HARBOUR of SAVANNAH, in Chatham County, State of GEORGIA. A. D. 1818.
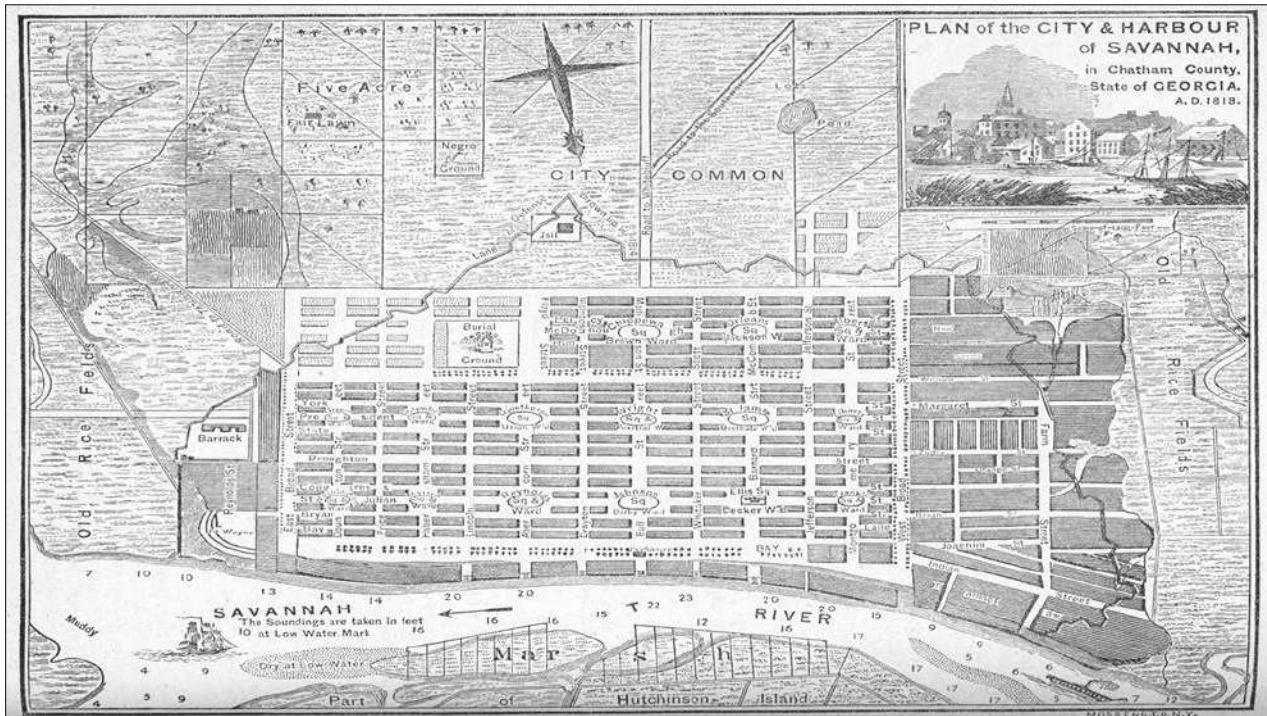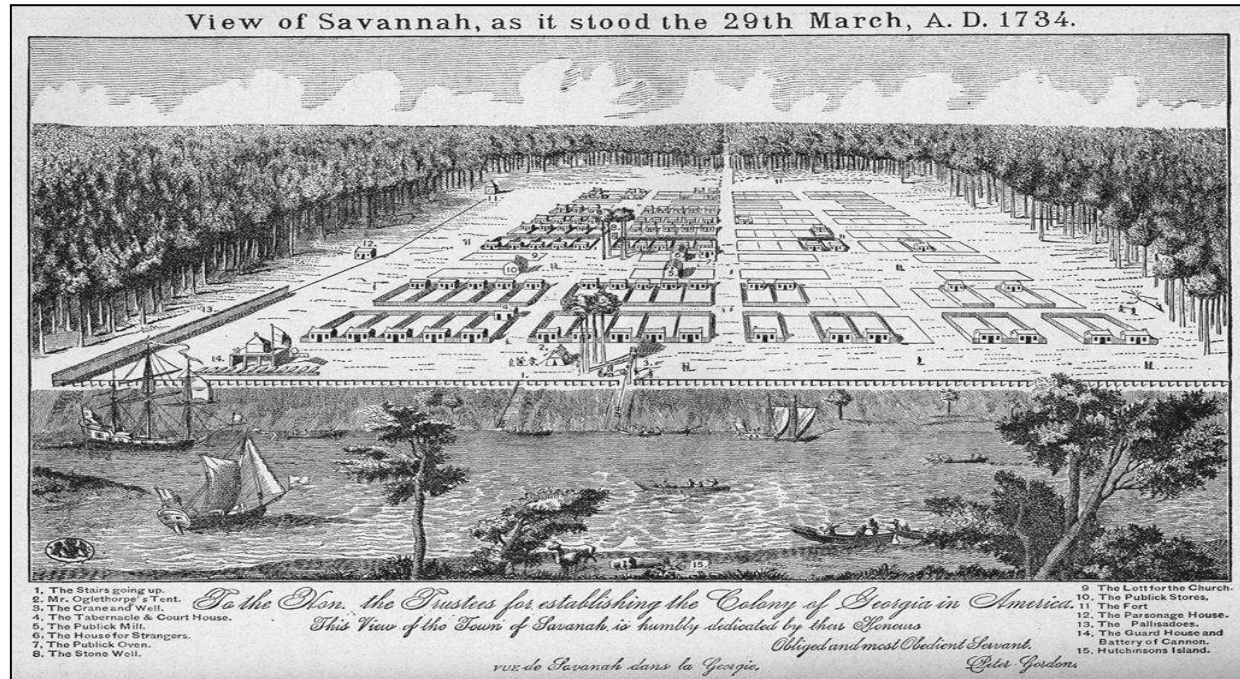
Access a third Savannah map (today) at: http://travel.yahoo.com/p-map-191501915-

Compare / Contrast With Summary

Concept 1   ## Concept 2

| | | |

How Alike?

_____

_____

_____

How Different?

With Regard To

Concept 1 differences:
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With Regard To:
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Concept 2 differences:
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Summarize:

As American population patterns have changed over time, more people live in or near a large city than ever before. Today, eight out of every ten Americans live in or near a large city. The design of these cities affects how people live and work.

Modern American cities have many physical and economic features that draw residents. They have centers for business, with offices and banks in busy downtowns. They have museums, sports stadiums, and concert venues. Special hospitals and universities have located in American cities. Cities act as centers for our government, society, and economy.

Write about an event you know about that happened in an American city.

_____

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But American cities have some problems, too. It costs significant amounts of money to build and maintain the infrastructure of cities. Infrastructure includes streets, bridges, water and sewer systems, electric power and phone service. Cities use tax revenue to pay for infrastructure and services such as public schools, police and fire protection.

Write about a problem you know about that is facing in an American city.

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City planners of today use designs to make the cities of tomorrow **sustainable.** City planners expect that the cities will be able to provide the goods and services that people need without expending all the resources around them or damaging the environment.

City planners of today try to follow these design principles:

Design Principles	Questions to Consider
Conserve resources. Don't waste energy, water, or money.	How can a city planner conserve resources?
Reduce trash. Reuse and recycle whenever you can.	How can a city planner reuse or recycle materials?
Produce what you need.	How can a city planner help people produce what they need?
Use alternative energy sources.	How can a city planner use alternative energy sources?
Respect the natural world. **Avoid projects that damage ecosystems.** **Include trees and plants in city designs whenever you can.**	How can a city planner avoid damage to ecosystems? How can a city planner include natural elements in city designs?

Green Ideas for Cities

Green idea today

The Chicago City Hall green roof helps cool the building. It also helps reduce energy costs, minimize water run-off, and improve air quality.

*Photo courtesy of courtesy of DOE/NREL
I Photographer: Katrin Scholz-Barth*

What if the roof area of tall buildings in the city was used to grow food or provide space for recreation?

This is a computer simulation of what it might look like.

www.ecogeek.org
City with "green" or garden roofs

High-Rise Farms
Benefits of growing plants in cities

- Lower transportation costs
- Disease-free food
- Grow food year-round
- Indoor crops not damaged by weather events

Skyscrapers cluster on Manhattan Island, with narrow streets and alleys between them.

Why do people build and use skyscrapers? The answer is, at any given time many people want to be close to the same spot, and they are willing to spend money to make it possible. Tall buildings with many floors allow more people to live, work, shop, conduct business, meet and communicate on a very small amount of land.

So, are skyscrapers a good - or green - idea?

The answer is - yes and no.

Many planners think that high rise buildings allow for more free space around them. The open space might be in parks and recreation areas. It could be between the buildings, or close-by and accessible to the city dwellers. They also think that keeping more people living in cities encourages open, natural space in suburbs and rural areas.

But cities dominated by skyscrapers can seem dirty, crowded, and polluted. Without space for growing things, they are not sustainable. High rise cities depend on the areas around them for water, fuel, food and workers. They create traffic snarls, generate mountains of trash, and pollute nearby rivers. New ideas about city planning and building designs may improve the green outlook for cities in the future.