

4th Grade

Social Studies GPS

Study Guide

Geography (Chapter 1)

Consolidation for CRCT Preparation (GPS based)

SS4G1 The student will be able to locate important physical and man-made features in the United States.

a. Locate major physical features of the United States; Include the Atlantic Coastal Plain, Great Plains, Continental Divide, the Great Basin, Death Valley, Gulf of Mexico, St. Lawrence River, and the Great Lakes.

b. Locate major man-made features; include New York City, NY; Boston, MA; Philadelphia, PA; and the Erie Canal.

Physical Features

<u>Atlantic Coastal Plain</u>	<u>Great Plains</u>	<u>Continental Divide</u>	<u>The Great Basin</u>	<u>Death Valley</u>	<u>Gulf of Mexico</u>	<u>St. Lawrence R.</u>	<u>Great Lakes</u>
<p><u>-Extends from New Jersey down the Eastern seaboard to Florida.</u></p> <p><u>-It has many marshes, bays, deep harbors, and swamps.</u></p> <p><u>-It is used mainly for agriculture.</u></p>	<p><u>-Located West of the Mississippi River.</u></p> <p><u>-Flat, grassy regions with few or no trees.</u></p> <p><u>-It is called the breadbasket because of its fertile soil.</u></p> <p><u>-It has miles of flat farmland where corn, oats, and wheat provide grain for America and the world.</u></p>	<p><u>-Runs along the crest, or highest peaks, of the Rockies.</u></p> <p><u>-It divides the flow of water into the east and west directions.</u></p>	<p><u>-Located West of the Rockies.</u></p> <p><u>-It covers 200,000 square miles.</u></p> <p><u>-It includes most of the state of Nevada and the western half of Utah.</u></p> <p><u>-It consists of N-S mountain ridges separated by broad valleys.</u></p> <p><u>-It contains many mineral resources.</u></p>	<p><u>-Located in SE California.</u></p> <p><u>-Death Valley is the lowest, hottest, and driest part of North America.</u></p> <p><u>-It is a national park and runs 140 miles long and 5-15 miles wide.</u></p>	<p><u>-Large body of water adjoining the coastlines of the southern states of Texas, Louisiana, Mississippi, Alabama, and Florida.</u></p>	<p><u>-Flows in NE direction.</u></p> <p><u>-Connects the Great Lakes with the Atlantic Ocean on the E. coast of Canada.</u></p> <p><u>-Part of the river forms the international boundary between Canada and New York State.</u></p> <p><u>-It opened waterways to deep water ships.</u></p>	<p><u>-Located in The north-central region of the US.</u></p> <p><u>-The combined area of these 5 lakes represents the largest surface of fresh water in the world.</u></p>

Man-Made Features

<u>Philadelphia, PA</u>	<u>Erie Canal</u>	<u>New York City, NY</u>	<u>Boston, MA</u>
<p><u>-Important trading city.</u></p> <p><u>-Founded on the Delaware River upstream from the Atlantic Ocean.</u></p>	<p><u>-Canals were built in the early 1800s. It was faster and cheaper to ship good by water than over land. It took 8 years to build the Erie Canal.</u></p> <p><u>-Connects the Great Lakes with the Atlantic Ocean, via the Mohawk and Hudson Rivers in New York.</u></p>	<p><u>-Grew rapidly because of trade.</u></p> <p><u>-Located at the junction of the Hudson River and the Atlantic Ocean.</u></p> <p><u>-It has an excellent deep water port.</u></p>	<p><u>-Grew rapidly because of trade.</u></p> <p><u>-It has a large port.</u></p>

First Americans (Chapter 2)

Consolidation for CRCT Preparation (GPS based)

SS4H1 The student will describe how early Native American cultures developed in North America.

a. Locate where the American Indians settled with emphasis on Arctic (Inuit), Northwest (Kwakiutl), Plateau (Nez Perce), Southwest (Hopi), Plains (Pawnee), and Southeastern (Seminole).

b. Describe how the American Indians used their environment to obtain food, clothing, and shelter.

	Seminoles	Pawnee	Hopi	Kwakiutl	Makahs	Chinooks	Inuit	Nez Perce
<u>Where they settled in North America.</u>	Florida	Plains	Southwest Arizona and New Mexico	Northwest	Northwest Washington	Northwest	Artic-Alaska Canada, Greenland	Plateau
<u>How did they use their environment for hunting, food gathering, clothes making skills.</u>	-Farmers who planted melon, beans, and corn. -They fished and hunted animals for their skins. Skin used for clothes	Relied on buffalo for food and other things.	They were farmers and used an irrigation system to water their crops. -They hunted for food.	They traded Along the NW.	They traded Along the NW. They fished for whale and hunted.	They traded Along the NW. They fished for whale and hunted.	They hunted whale and caribou. They used The skins for clothes.	They caught salmon in the rivers and gathered berries and plants.
<u>Types of shelter and reasons they had that type of shelter.</u>	They lived in longhouses with smoke escape holes.	They lived in teepees because they roamed where the buffalo roamed.	They built houses of clay called pueblos.	They built homes from cedar trees from longhouses. They stayed in one place longer.	They built homes from cedar trees called longhouses. They stayed in one place longer.	They built homes from cedar trees called longhouses. They stayed in one place longer.	They built homes out of ice called igloos.	They lived In long wooden houses.
<u>Any unique names given to the tribe and tell why.</u>	Women kept The house organized. They are called people of the Creek because they live near the Creek.	They used all parts of the buffalo for food and shelter. They were Nomads and moved often	They made pots out of clay to store their food.	They had celebrations called potlatches	They used every part of the whale for food, weapons, and other things.	They used every part of the whale for food, weapons, and other things.	They were called mound builders because their homes looked like mounds.	-They had potlatch ceremonies. -They were a large nation.

Age of Exploration (Chapter 3 and 4)

Consolidation for CRCT Preparation (GPS based)

SS4G2 The student will describe how physical systems affect human systems.

b. Describe how the early explorers (SS4H2a) adapted, or failed to adapt, to the various physical environments in which they traveled.

SS4H2 The student will describe European exploration in North America.

a. Describe the reasons for, obstacles to, and accomplishments of the Spanish, French, and English explorations of John Cabot, Vasco Nunez Balboa, Juan Ponce de Leon, Christopher Columbus, Henry Hudson, and Jacques Cartier.

b. Describe examples of cooperation and conflict between Europeans and Native Americans.

	John Cabot	Jacques Cartier	Christopher Columbus	Juan Ponce de Leon	Vasco Nunez Balboa	Henry Hudson
<u>Home of the explorer</u>	Born in Italy but lived in England	France	Grew up in Italy but funded by Spain.	Spain	Spain	England
<u>Where explorer explored</u>	He explored the East coast of Canada -known for its rich fishing area	He sailed up the St. Lawrence River to Canada. He named Canada.	He sailed to the Caribbean and the USA..	He discovered Florida (named it after the Spanish word for flower).	He sailed through the Panama jungles and mountains. He reached Eastern part of USA.	He sailed to the Hudson Bay, River, and Strait area from NY to Canada.
<u>Why he explored that area</u>	He was looking for a shorter route to Asia. Asia was a trade route.	He was looking for a shorter route to the (Asia) Pacific through North America (NW Passage).	He was looking for a route to India (Asia) to trade for spices.	He was looking for gold and the Fountain of Youth.	He was looking for the gold and pearls and an overland route to the Pacific Ocean	He was looking for a shorter route to Asia. Asia was a trade route.
<u>Obstacle or problem explorer explored</u>	Sailed across the Atlantic Ocean thinking he was headed for Asia. He had No maps.	Freezing winters and short growing seasons hindered him from going on. They caught diseases. He Named the area Kanata.	He had no maps and a frightened crew.	He went home through The Gulf Stream (a current in the Atlantic Ocean) area. He Fought with the Native Americans.	His ship leaked and had to be abandoned in Hispaniola. He fought with Native Americans and Married a Chiel's daughter. .	He was hindered cold weather and ice. His crew mutinied and left him in the Bay area....no maps.

The English Colonies (Chapters 5 and 6)

Consolidation for CRCT Preparation (GPS based)

SS4H3 The student will explain the factors that shaped British colonial America.

- Compare and contrast life in the New England, Mid-Atlantic, and Southern colonies.
- Describe colonial life in America as experienced by various people, including large landowners, farmers, artisans, women, indentured servants, slaves, and Native Americans.

SS4H2 The student will describe European exploration in North America.

- Describe examples of cooperation and conflict between Europeans and Native Americans.

	New England	Mid-Atlantic	Southern
<u>States</u>	<u>Maine, New Hampshire, Massachusetts, Rhode island, Connecticut</u>	<u>New York, New Jersey, Pennsylvania, Delaware</u>	<u>Maryland, Virginia, Georgia, South Carolina, North Carolina</u>
<u>Geography/Land</u>	<u>Mountains and deep valleys; Rocky and sandy soil. Located along a shoreline</u>	<u>Rolling hills and valleys; fertile soil</u>	<u>Rich, fertile soil; the tidewater</u>
<u>Climate/Growing Season</u>	<u>Warm summers and long, cold winters; short growing seasons-not good for farming.</u>	<u>Plenty of rain and sunshine; Longer growing season</u>	<u>Warm weather and plenty of rain; Long growing season. Good for Farming-large plantations.</u>
<u>Natural Resources</u>	<u>Wood, fish, and whales. Good For fishing, ship building, and lumber. They exported lumber.</u>	<u>Soil, wildlife, and long wide Rivers.</u>	<u>Soil and waterways (trade).</u>
<u>Other Information</u>	<ul style="list-style-type: none"> -Atlantic coastal plain runs from Texas to Massachusetts. It meets the Atlantic Ocean. -Great Plains flow from Mexico to Canada. -St Lawrence River flows from NY to Canada. -Great lakes are located around Michigan. -Erie Canal was built for travel and shipping and connects the Hudson River to Lake Erie. 	<ul style="list-style-type: none"> -Midwest is the corn belt area. -Continental Divide runs from Mexico to Canada (West coast). -Death Valley is a desert in California-lowest Point in USA. -Great Basin is in Nevada-a great bowl surrounded by high land. 	<ul style="list-style-type: none"> -Jamestown grew tobacco because it was easy to grow and was a cash crop.

Life in the English Colonies (Chapters 5 and 6)

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SS4H2 The student will describe European exploration in North America.

- b. Describe examples of cooperation and conflict between Europeans and Native Americans.

Landowners	Farmers	Artisans	Women	Indentured Servants	Slaves	Native Americans
<p><u>Farms in the south were large and were called plantations. They grew cash crops (rice, tobacco, cotton, sugarcane, and indigo.</u></p> <p><u>Slaves worked on these farms.</u></p>	<p><u>In the Mid-Atlantic region, workers who did not own their own land were called tenant farmers.</u></p> <p><u>Farms in the south were large and were called plantations. They grew cash crops (rice, tobacco, cotton, sugarcane, and indigo.</u></p> <p><u>Slaves worked on these farms.</u></p> <p><u>There were some small farms in the south.</u></p>	<p><u>In the Mid-Atlantic and New England, many workers were artisans.</u></p> <p><u>Artisans are craftspeople who made products such as bricks, sails, and furniture.</u></p>	<p><u>Women had an active role in colonial life.</u></p> <p><u>They prepared and preserved food.</u></p> <p><u>They made household items such as clothing, soap, and candles.</u></p> <p><u>They helped in the fields.</u></p>	<p><u>Indentured servants agreed to work for someone for a certain length of time.</u></p> <p><u>In exchange their boat fair was paid from Europe to America.</u></p>	<p><u>Slaves worked on plantations. When enslaved people arrived in the Colonies, they were sold.</u></p> <p><u>They were treated like farm animals. Families were separated.</u></p>	<p><u>They competed with the colonists for their land. The relationship was one of conflict and cooperation.</u></p>

Revolutionary War (Chapter 7 and 8)

Consolidation for CRCT Preparation (GPS based)

SS4H4 The student will explain the causes, events, and results of the American Revolution.

- a. Trace the events that shaped the revolutionary movement in America, including the French and Indian War, British Imperial Policy that led to the 1765 Stamp Act, the slogan “no taxation without representation,” the activities of the Sons of Liberty, and the Boston Tea Party.
- b. Explain the writing of the Declaration of Independence; include who wrote it, how it was written, why it was necessary, and how it was a response to tyranny and the abuse of power.
- c. Describe the major events of the Revolution and explain the factors leading to American victory and British defeat; include the Battles of Lexington and Concord and Yorktown.
- d. Describe key individuals in the American Revolution with emphasis on King George III, George Washington, Benjamin Franklin, Thomas Jefferson, Benedict Arnold, Patrick Henry, and John Adams.

<u>French and Indian War</u>	<u>British Imperial Policy</u>	<u>Stamp Act</u>	<u>No Taxation w/out Representation</u>	<u>Sons of Liberty</u>	<u>Boston Tea Party</u>
<p>British fought the French for control of the Ohio River Valley territory in North America.</p> <p>Britain fought against the French and their Native American allies.</p> <p>This area was good for fur trading.</p> <p>British won but had a large debt and wanted the colonies to help pay the cost</p> <p>After the war, Britain changed the way they governed the colonists. The Colonist moved toward independence.</p>	<p>British won the war but wanted the Colonists to help pay for the high cost.</p> <p>British started charging the colonists in different ways. These actions upset the Colonists.</p> <p>Britain started using It's power unfairly.</p>	<p>British passed this act. It taxed newspapers, contracts, pamphlets, and court documents.</p> <p>A tax is money that people pay to the government for services.</p> <p>This act made the colonist very angry and they spoke out.</p> <p>The Colonists said “no taxation without Representation” when Britain tried to tax them. The British were not part of the government and had no say in laws like taxes.</p>	<p>The British canceled the Stamp Act but later gave them the Townsend Act.</p> <p>This Act taxed glass, paint, lead, paper, and tea.</p> <p>Colonist were angry and said “no taxation without representation” .</p> <p>They were upset because they were being taxed without being represented in the British parliament.</p>	<p>This was a group formed to protest what Britain was doing to the Colonist.</p> <p>It organized parades to protest the Stamp Act.</p> <p>They attacked British tax collectors.</p> <p>They organized the Boston Tea party.</p>	<p>Sons of Liberty were disguised as Native Americans and boarded ships in the Boston Harbor.</p> <p>They dumped tons of tea into the water. This became known as the Boston Tea Party.</p>

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<u>Who wrote the Declaration of Independence</u>	<u>How was the Declaration of Independence written</u>	<u>Why was the Declaration of Independence necessary</u>	<u>Why was the Declaration of Independence in response to tyranny and abuse of power</u>	<u>Content of the Declaration of Independence</u>
<p><u>Thomas Jefferson was the main writer of the Declaration of Independence.</u></p> <p><u>The entire group of writers consisted of 5 people selected by the Second Continental Congress.</u></p> <p><u>John Hancock signed his name in bold letters on the Constitution.</u></p>	<p><u>It was written in 3 parts.</u></p> <p><u>The Declaration of Independence was written to declare the independence of the Colonies from Britain and needed to form a new nation.</u></p>	<p><u>The Declaration of Independence was written to declare the independence of the Colonies from Britain.</u></p> <p><u>It declared equal rights for all.</u></p>	<p><u>Thomas Jefferson listed many ways that King George had abused his power.</u></p> <p><u>He had taken away colonists' rights by forcing taxes on them and sent soldiers to control them.</u></p>	<p><u>-The first part of the Declaration told the British why the colonist were doing what they were doing.</u></p> <p><u>-All men are created equal and are entitled to natural rights that Can never be given up or taken away. These are rights to live, to be free, and to lead a life that makes us happy. These are also called unalienable rights.</u></p> <p><u>-People make the laws of their government.</u></p> <p><u>-The second part of the Declaration listed all the actions the king took that the colonists thought were unfair.</u></p> <p><u>-They blamed him for trying to establish an absolute tyranny over the colonies. Tyranny means being under the control of a cruel leader.</u></p> <p><u>-The last part explained that the colonists had tried peaceful means to present their point of view to the British government.</u></p>

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<u>Battle of Lexington</u>	<u>Battle of Concord</u>	<u>Battle of Yorktown</u>
<p>-British troops clashed with the Colonists at Lexington and later at Concord. A small group of minutemen were at Lexington. British soldiers told them to leave and as they turned to leave, someone fired a shot. No one knows who. This was called the shot heard around the world.</p>	<p>-Colonists stored lots of military supplies at Concord, Massachusetts about 20 miles from Boston.</p> <p>-British troops clashed with the Colonists at Lexington and later at Concord.</p> <p>-Paul Revere rode his horse and warned the Colonists that the British were coming to Concord and Lexington.</p>	<p>-With the help of the French Navy, George Washington beat the British at the Battle of Yorktown.</p> <p>-The British surrendered so the Revolutionary War was almost over.</p> <p>-Two years later, the British signed the Treaty of Paris which gave the 13 colonies their independence.</p>

<u>King George III</u>	<u>George Washington</u>	<u>Benjamin Franklin</u>	<u>Thomas Jefferson</u>	<u>Benedict Arnold</u>	<u>Patrick Henry</u>	<u>John Adams</u>
<p>-King of Great Britain. He taxed the Colonists to help pay for the expensive French and Indian War. He did not understand why the Colonists opposed him.</p> <p>-He was thought of as a bully for trying to control the Colonists.</p>	<p>-Commander in Chief of the Continental Army during the Revolution. He was elected as the first president of the United States</p>	<p>-He was born in Boston and settled in Philadelphia. He was an inventor, scientist, publisher, political leader, diplomat, postmaster, philosopher.</p> <p>-He served on the committee to write the Declaration of Independence.</p> <p>-He was a delegate to the Constitutional Convention in 1787.</p>	<p>-He was born in Virginia and was the main author of the Declaration of Independence.</p> <p>-He was 3rd President of the United States.</p> <p>-He was a lawyer, an inventor, a musician, an architect, a statesman, and a skilled writer.</p>	<p>-He was born in Connecticut. He served in the Continental Army.</p> <p>-He made a secret agreement to hand over the fort at West Point to the British.</p> <p>-He was as Known as a traitor</p>	<p>-He was a member of the Virginia House of Burgess. He spoke out against the Stamp Act.</p> <p>-He gave a famous speech “Give me liberty or give me death”.</p> <p>-He rode to Lexington and warned the Patriots that the British were coming.</p>	<p>-He convinced the other delegates to sign the Declaration of Independence.</p> <p>-He nominated George Washington to be the commander in chief.</p> <p>-He signed the Treaty of Paris, ending the Revolutionary War.</p> <p>-He was vice president and later became president.</p>

After the Revolutionary War-A New Nation (Chapter 9)

Consolidation for CRCT Preparation (GPS based)

SS4H5 The student will analyze the challenges faced by the new nation.

- a. Identify the weaknesses of the government established by the Articles of Confederation.
- b. Identify the major leaders of the Constitutional Convention (James Madison and Benjamin Franklin) and describe the major issues they debated, including the rights of states, the Great Compromise, and slavery.
- c. Identify the three branches of the U. S. government as outlined by the Constitution, describe what they do, how they relate to each other checks and balances and separation of power), and how they relate to the states.
- d. Identify and explain the rights in the Bill of Rights, describe how the Bill of Rights places limits on the power of government, and explain the reasons for its inclusion in the Constitution in 1791.
- e. Describe the causes of the War of 1812; include burning of the Capitol and the White House.

Strength of the Articles of Confederation

- It was the new nation's constitution.
- It expressed the colonies' wish to join together in a permanent union.

Weakness of the Articles of Confederation

- It created an alliance or confederation and not a national government. It created a weak National government.
- States kept most of the power and authority.
- It created a single, one chamber Congress.
- Each state had 1 vote, regardless of Population.
- New laws needed 9 out of 13 votes.
- The government had no executive or judicial branch.
- Congress could not declare war, make treaties with other countries and make peace treaties.
- Congress could not print and borrow money.
- Congress could not set up an army.
- Congress could not control trade.
- Congress could not create taxes.
- It could not make the states work together
- Congress did not have enough power.

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	<u>Constitutional Convention</u>	<u>James Madison</u>	<u>Benjamin Franklin</u>
	<p><u>-Group of 55 delegates met in Philadelphia in 1787. They Each spoke for their states.</u></p> <p><u>-They met to decide how to change the Articles of Confederation. They did not agree.</u></p>	<p><u>-He wanted to create a whole new government and not just change the Articles of Confederation. This was called the Virginia Plan and would consist of 3 branches. This was a federal system. Where states shared power with the central government. But the central government had more power. He wanted citizens to elect the leaders.</u></p> <p><u>-He was from Virginia.</u></p>	<p><u>-He was from Pennsylvania.</u></p> <p><u>-He was known for his wisdom.</u></p> <p><u>-He invented many things.</u></p>
<u>Rights of States</u>	<p><u>-Larger states had more power and more votes in Congress because of their population.</u></p>		
<u>The Great Compromise</u>	<p><u>-States agreed that Congress would have 2 parts: House and Senate. All states have an equal number of representatives in the Senate.</u></p> <p><u>-The number of representatives in the House would be based on population.</u></p>		
<u>Slavery</u>	<p><u>-Southern states wanted their slaves to count in their population. Other states said it was unfair because slaves were treated as property.</u></p> <p><u>-Southern states wanted slavery to continue. All did not agree but signed anyway.</u></p> <p><u>-3/5 Rule-This rule counted 5 slaves as 3 slaves. Southern states could continue slavery until 1808.</u></p>		

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	<u>Legislative-Congress/ House of Representatives</u>	<u>Judicial-Judges/Courts</u>	<u>Executive-President</u>
<u>What they do</u>	<ul style="list-style-type: none"> -<u>Makes/writes laws for the country-This branch is called the Congress (Made up of a House of Representative and the Senate).</u> -<u>Congress can raise money through taxes or borrowing. It uses the money to pay for an army, roads, national parks, etc.</u> 	<ul style="list-style-type: none"> -<u>Judges, decides, settles conflicts about the meaning of laws and whether laws have been followed.</u> -<u>Many courts across the nation make up the judicial branch.</u> -<u>The highest court is the Supreme Court and it decides if laws are constitutional.</u> 	<ul style="list-style-type: none"> -<u>Can suggest, execute, enforce laws and carry out laws made by Congress.</u> -<u>The President is the head of this branch.</u> -<u>A President is elected every 4 years.</u>
<u>How they relate to each other</u>	<u>Power is divided among the branches.</u>		
<u>How they relate to the states</u>	<u>The central government shares powers with the states. This is called a federal system. Federal government has power over issues that affect the nation. States have power over local issues such as having elections, establishing schools, and trading within each state. National government has the most power.</u>		
<u>Checks and Balances</u>	<u>The constitution gives the federal government more power but not unlimited power. There are 3 branches to limit the government's power. Each branch limits the power of the others. They check and balance Each other.</u>		
<u>Separation of Power</u>	<ul style="list-style-type: none"> -<u>Congress can reject judges selected by the President and treaties made by the President.</u> -<u>Only Congress can declare war.</u> -<u>The 2 chambers of the government are the Senate and the House of Representation.</u> 	<ul style="list-style-type: none"> -<u>The supreme court decides whether laws are unconstitutional.</u> 	<ul style="list-style-type: none"> -<u>President makes treaties and chooses judges.</u> -<u>President can veto (reject) laws made by congress.</u>

After the Revolutionary War-A New Nation (Chapter 9) Continued

Consolidation for CRCT Preparation (GPS based)

SS4CG2 The student will explain the importance of freedom of expression as written in the First Amendment to the U. S. Constitution.

SS4CG3 The student will describe the functions of government.

- a. Explain the process for making and enforcing laws.
- b. Explain managing conflicts and protecting rights.
- c. Describe providing for the defense of the nation.
- d. Explain limiting the power of people in authority.
- e. Explain the fiscal responsibility of government.

Explain the process for making and enforcing laws.

*To make a law, first a member of the Senate or House of Rep gets an idea for a bill and writes it. The Senate and House of Re then each vote on the bill. If both houses approve, it goes to the President. The President must decide to approve the bill. If he signs it, it becomes law. If he rejects it, it is called a veto. The bill then goes back to the Senate and House of Rep for a re-vote. If two-thirds of both houses vote for the bill, it becomes law.

* The national and state governments are responsible for creating and enforcing laws.

Explain managing conflicts and protecting rights

*Government plays an especially important role in managing conflict and protecting rights. Government agencies make sure that industries do not pollute the environment. Government also regulates air travel to make sure that it is as safe as possible. The federal government also provides defense. State and local governments pass laws to issue driver's licenses and control highway traffic. Federal and state laws oversee businesses like banking and insurance.

Describe providing for the defense of the nation.

*The military is intended to provide for the defense of the nation.

*The president is in charge of the military.

***Explain limiting the power of people in authority.**

-Government power is limited. The supreme court (judicial branch) checks the powers of both the president (executive branch) and congress (legislative Branch) by making sure they follow laws, and by making sure laws don't go against the constitution.

-The President can check the power of congress by vetoing its laws.

-The President can check the courts by nominating judges on the courts.

-Congress checks the president by confirming or vetoing a president's appointments and treaties. It can override a president's veto of a law.

***Explain the fiscal responsibility of government.**

-The government is responsible for making laws for many different purposes. Laws protect people and maintain order. Laws also help to manage conflicts, provide for national defense, and meet social needs.

-The government plays an important role in managing conflict and protecting rights.

-Government contributes to the quality of citizen's everyday lives (National parks, social security administration)

-Governments collect property taxes to run and maintain schools.

After the Revolutionary War-A New Nation (Chapter 9) Continued

Consolidation for CRCT Preparation (GPS based)

SS4CG1 The student will describe the meaning of

- a. Natural rights as found in the Declaration of Independence (the right to life, liberty, and the pursuit of happiness).
- b. "We the people" from the Preamble to the U.S. Constitution as a reflection of consent of the governed or popular sovereignty.
- c. The federal system of government in the U.S.

SS4CG2 The student will explain the importance of freedom of expression as written in the First Amendment to the U. S. Constitution.

Natural rights-the right to life, liberty, and the pursuit of happiness.

-Thomas Jefferson wrote these words.

-The rights are unalienable which means they cannot be taken away.

"We the People" from the Preamble to the US Constitution.

-We the people means that it is the people, not the King, who have the power to make the supreme law of the land.

Federal system of government

-In federalism, the national or federal government shares the power with the states.

-The national government declares war, prints money/coins, oversees commerce/trade between states.

-The state government runs elections establishes local governments, sets up schools and colleges, license professional workers like doctors and lawyers.

-Both national and state governments make laws, borrow money, establishes courts.

***Freedom of expression as written in the First Amendment to the U.S. Constitution..**

-The First Amendment is especially important because it protects freedom of expression.

-The first amendment allows for freedom of religion, freedom of speech, freedom of press, right to peaceful assemble

-Freedom of the press allows you to write articles in the newspaper.

-Freedom of speech allows you to speak out about things you don't agree with.

Consolidation for CRCT Preparation (GPS based)

SS4CG4 The student will explain the importance of Americans sharing certain central democratic beliefs and principles, both personal and civic.

a. Explain the necessity of respecting the rights of others and promoting the common good.

b. Explain the necessity of obeying reasonable laws/rules voluntarily, and explain why it is important for citizens in a democratic society to participate in public (civic) life (staying informed, voting, volunteering, communicating with public officials).

Respecting the rights of others.

-Good citizens protect the rights of others.

Promoting the common good.

-Things should be done for the good of all. It is the greatest possible good for the most people. Always ask what is good for the majority of people.

Obeying reasonable laws/rules voluntarily

-Citizens have a responsibility to obey the laws, vote in elections, pay taxes, serve on juries, and serve in the armed forces.

***important for citizens in a democratic society to participate in public (civic) life (staying informed, voting, volunteering, communicating with public officials).**

-Good citizenship means that people participate in public or community service.

-They volunteer at local hospitals, museums, or other areas.

After the Revolutionary War-A New Nation (Chapter 9)

Consolidation for CRCT Preparation (GPS based)

SS4H5 The student will analyze the challenges faced by the new nation.

- a. Identify the weaknesses of the government established by the Articles of Confederation.
- b. Identify the major leaders of the Constitutional Convention (James Madison and Benjamin Franklin) and describe the major issues they debated, including the rights of states, the Great Compromise, and slavery.
- c. Identify the three branches of the U. S. government as outlined by the Constitution, describe what they do, how they relate to each other checks and balances and separation of power), and how they relate to the states.
- d. Identify and explain the rights in the Bill of Rights, describe how the Bill of Rights places limits on the power of government, and explain the reasons for its inclusion in the Constitution in 1791.
- e. Describe the causes of the War of 1812; include burning of the Capitol and the White House.

<u>Bill of Rights</u>	<u>Limits on the Power of the Government</u>	<u>Reason it is in the Constitution</u>
<u>1st Amendment-Freedom of Expression (religion, press)</u>	<p><u>-The Bill of Rights was added to limit the power of the federal government and to protect the rights of citizens.</u></p>	<p><u>-The Bill of Rights contains the first ten amendments to the constitution.</u></p>
<u>2nd Amendment-Freedom to bear arms.</u>		
<u>3rd Amendment-Freedom from soldiers living in our homes</u>	<p><u>-It lists rights that the government cannot take away.</u></p>	<p><u>-These rights protect the freedoms of citizens.</u></p>
<u>4th Amendment-Freedom from unlawful searches in our homes.</u>		
<u>5th Amendment-Right to a fair trial.</u>		
<u>6th Amendment-Right to a speedy trial.</u>	<p><u>Other information:</u></p> <ul style="list-style-type: none"> <u>-Freedom of the Press allows one to write articles in the newspaper.</u> <u>-Freedom of speech allows one to speak out against things they don't agree with.</u> <u>-The 13th amendment freed the slaves.</u> <u>-The Preamble of the Constitution states "we the people". This means that citizens not the king have the power.</u> <u>-The constitution is designed to be changed because the authors knew the nation would grow and change.</u> 	<p><u>-An amendment is an official change or addition to a law. The amendments were added in case changes needed to be made.</u></p>
<u>7th Amendment-Right to a trial by a jury.</u>		
<u>8th Amendment-Right to bail.</u>		
<u>9th Amendment-Rights other than those in the Constitution.</u>		
<u>10th Amendment-We have state rights.</u>		

After the Revolutionary War-A New Nation (Chapter 10)

Consolidation for CRCT Preparation (GPS based)

SS4H5 The student will analyze the challenges faced by the new nation.

- a. Identify the weaknesses of the government established by the Articles of Confederation.
- b. Identify the major leaders of the Constitutional Convention (James Madison and Benjamin Franklin) and describe the major issues they debated, including the rights of states, the Great Compromise, and slavery.
- c. Identify the three branches of the U. S. government as outlined by the Constitution, describe what they do, how they relate to each other checks and balances and separation of power), and how they relate to the states.
- d. Identify and explain the rights in the Bill of Rights, describe how the Bill of Rights places limits on the power of government, and explain the reasons for its inclusion in the Constitution in 1791.
- e. Describe the causes of the War of 1812; include burning of the Capitol and the White House.

Cause of the War of 1812

-The war was fought because the British started seizing Colonist ships and sailors.

The War of 1812 Events

-British forces burned the White House, the Capitol, and other buildings in Washington.

-Lady Dolly Madison, President Madison's wife, grabbed a few papers and a famous painting of George Washington before leaving the White House. After she left, the White House was bombed.

-The bombardment of Fort McHenry Inspired Francis Scott Key to write a poem, "Star Spangled Banner", about seeing the flag still standing above the fort the next morning. The song became the National Anthem in 1931.

A Growing Country (Chapter 11)

Consolidation for CRCT Preparation (GPS based)

SS4H6 The student will explain westward expansion of America between 1801 and 1861.

- Describe territorial expansion with emphasis on the Louisiana Purchase, the Lewis and Clark expedition, and the acquisitions of Texas (the Alamo and independence), Oregon (Oregon Trail), and California (Gold Rush and the development of mining towns).
- Describe the impact of the steamboat, the steam locomotive, and the telegraph on life in America.

<u>Louisiana Purchase</u>	<u>Lewis and Clark Expedition</u>	<u>Acquisition of Texas</u>	<u>The Alamo and the Mexican American War</u>	<u>Oregon Trail</u>	<u>California Gold Rush</u>	<u>California Boomtowns</u>
<p>-Thomas Jefferson gained Louisiana from France under the Louisiana Purchase.</p> <p>-This land purchase, which was the Western part of the USA, doubled the size of the USA.</p> <p>-Thomas Jefferson sent the Corps of Discovery to explore the area.</p> <p>-The Corps of Discovery was headed by Meriwether Lewis and William Clark.</p>	<p>-Lewis and Clark started at St Louis up the Missouri River and through the plains up to the Pacific Ocean.</p> <p>-They were to discover information (Geography, people, natural resources) about the new area purchased under the Louisiana Purchase. They kept diaries and made maps.</p> <p>-They met many Native Americans.</p> <p>-A Shoshone woman named Sacagawea helped them to communicate with the Native Americans and to gather food.</p>	<p>-Texas fought a war to become independent from Mexico.</p> <p>-Mexicans did not want more Colonists moving to Mexico. They started taxing the Colonists, so the Colonists rebelled.</p> <p>-The Mexican Army attacked and defeated the Texas soldiers at the Alamo.</p>	<p>-The Alamo was a Fort in Texas that started out as a mission.</p> <p>-The Mexican Army attacked and defeated the Texas soldiers at the Alamo.</p> <p>-Later, Forces under Sam Houston defeated the Mexican Forces.</p> <p>-Texas found it hard to run their own government and wanted to become part of the USA.</p> <p>-This caused a to break out with Mexico (Mexican American War) because of a border dispute. The war ended with the Treaty of Guadalupe Hidalgo.</p> <p>-Mexico had to cede or give up territory. The USA gained more land-West Texas, N. Mexico, Arizona, Nevada, California, Utah, Colorado, and Wyoming</p>	<p>-Many people known as Pioneers moved West because of the expansion of the USA. They followed a route called the Oregon Trail.</p> <p>-Groups of wagons formed to make the journey.</p> <p>-This 2,000 mile trail went from Missouri to Colorado. People were looking for good, inexpensive land.</p> <p>-They had to cross land through the plains and Rocky Mountains before winter.</p>	<p>-Many settlers moved to the west to seek their fortunes. Gold was discovered in 1848 in California which led to the start of the gold rush.</p> <p>-Pioneers nicknamed the forty-niners went to California.</p> <p>-Many Native Americans were forced off their land and killed.</p> <p>-Boomtowns were formed to support the mining way of life. These towns had merchants who sold food, mining equipment, etc to the miners.</p> <p>-Later gold became hard to find.</p>	<p>-Boomtowns were formed to support the mining way of life. These towns had merchants who sold food, mining equipment, etc to the miners.</p> <p>-Later gold became hard to find causing many boom towns to go away.</p>

A Growing Country (Chapter 11)

Consolidation for CRCT Preparation (GPS based)

SS4H6 The student will explain westward expansion of America between 1801 and 1861.

- Describe territorial expansion with emphasis on the Louisiana Purchase, the Lewis and Clark expedition, and the acquisitions of Texas (the Alamo and independence), Oregon (Oregon Trail), and California (Gold Rush and the development of mining towns).
- Describe the impact of the steamboat, the steam locomotive, and the telegraph on life in America.

<u>Steamboat</u>	<u>Steam Locomotive</u>	<u>Telegraph</u>	<u>Industrial Revolution</u>
<p><u>-Robert Fulton invented the steamboat called the Clermont.</u></p> <p><u>-It traveled 150 miles up the Hudson River from New York to Albany.</u></p> <p><u>-The trip took 32 hours at about 4.7 miles per hour.</u></p> <p><u>-Transportation by steamboat led to canal-building.</u></p> <p><u>-Canals connected waterways. The Erie Canal was an important early canal that linked New York with the Great Lakes (via the Hudson River and the Mohawk River).</u></p> <p><u>-This allowed settlers to move by boat into western New York and then farther west.</u></p> <p><u>-Farmers could send their grain and other crops to New York to be sold.</u></p>	<p><u>-After 1840, Americans built railroads rather than canals because of the steam locomotive.</u></p> <p><u>-Railroads were much cheaper to build.</u></p> <p><u>-Goods could be transported faster by rail than by steamboat.</u></p> <p><u>-After the Civil War, the first transcontinental railraod connected the two coasts (East and West).</u></p>	<p><u>-Samuel Morse invented the electric telegraph in 1844.</u></p> <p><u>-For the first time, people could send messages very quickly over long distances. This was how America communicated until the invention of the Telephone in 1876 by Alexander Graham Bell.</u></p>	<p><u>-The Industrial Revolution brought about new changes in transportation and manufacturing.</u></p> <p><u>-Machines for textile (cloth) were created.</u></p> <p><u>-Eli Whitney invented the cotton gin which cleaned cotton quickly.</u></p> <p><u>-Interchangeable parts ensured parts that were exactly the same size and shape.</u></p> <p><u>-Mass production allowed many parts to be made at once.</u></p>

A Growing Country (Chapter 11)

Consolidation for CRCT Preparation (GPS based)

SS4H7 The student will examine the main ideas of the abolitionist and suffrage movements.

a. Discuss biographies of Harriet Tubman and Elizabeth Cady Stanton.

b. Explain the significance of Sojourner Truth's address ("Ain't I a Woman?" 1851) to the Ohio Women's Rights Convention.

<u>Abolitionist Movement</u>	<u>Suffrage Movement</u>	<u>Harriet Tubman</u>	<u>Elizabeth Cady Stanton</u>	<u>Sojourner Truth</u>
<p><u>-Many people, both black and white banded together to form the abolitionist movement. They wanted to end slavery immediately.</u></p> <p><u>-The Underground railroad was formed to help slaves escape from the south under this movement.</u></p> <p><u>-Fredrick Douglas was an abolitionist who wanted slavery abolished. Sojourner truth worked with him.</u></p>	<p><u>-Suffrage means the right to vote.</u></p> <p><u>-Women and blacks could not vote.</u></p>	<p><u>-Harriet Tubman was one of the famous conductors on the Underground Railroad.</u></p> <p><u>-The Underground railroad was formed to help slaves escape from the south under this movement.</u></p> <p><u>-She was enslaved in Maryland and later escaped.</u></p> <p><u>-She risked her life 19 times journeying back and forth to Maryland to help others escape who were enslaved. She helped more than 300 people, including her parents.</u></p> <p><u>-People called her the Black Moses (compared her to Moses in the Bible who led Israelites out of slavery).</u></p> <p><u>-Slave owners wanted offered rewards to capture and return her.</u></p>	<p><u>-Stanton and her friend Lucretia Mott wanted to attend an anti-slavery meeting in London. Some delegates were denied recognition because they were women.</u></p> <p><u>-Stanton and Mott organized a conference in behalf of women's rights. This meeting was called the Seneca Falls Convention because it was held in Seneca Falls, New York.</u></p> <p><u>-They created a document called the Declaration of Sentiments-it said all men and women were created equal. It listed reasons women were upset (not allowed to vote, had to follow laws that they had no say in, weren't allowed to go to college, keep their own wages, own property).</u></p> <p><u>-This launched the women's rights movement. Later women were allowed to vote under the 19th amendment in 1920.</u></p>	<p><u>-Her original name was Isabella Van Wagener. She was born a slave in New York. Slavery was later abolished in New York. She changed her name and moved to New York City.</u></p> <p><u>-She walked through Long Island and Connecticut preaching about salvation.</u></p> <p><u>-In Massachusetts, she joined the abolitionist movement and later joined the suffrage movement.</u></p> <p><u>-She could not read and write but was a talented speaker. She made a speech "Ain't I a Woman" at a Women's Convention in Ohio. She believed in the strong equality of men and women regardless of color.</u></p>

Economics

Consolidation for CRCT Preparation (GPS based)

SS4E2 The student will identify the elements of a *personal budget* and explain why *personal spending* and *saving* decisions are important.

Personal Budget. This helps you to save money.

-A budget is a plan for spending and saving money.

-It is usually set up on a monthly basis.

-each month you set aside a certain amount if money for your expenses.

-Expenses are money that you pay to buy items, like groceries, or to pay bills, such as the rent or the Telephone bills.

-Steps for a personal budget:

--Figure out your monthly income.

--List your expenses.

Spending Decisions.

-Personal spending is the amount of money you spend.

-Once you know your income, look at your expenses.

-Never spend more money than you make.

Saving decisions.

-Some people put a certain amount of their income into savings each month.

-A savings account is an investment in the future.

-A savings account provides you a cushion for the future.

Government.

-The government also makes budgets to balance their needs and wants.

-Governments have to choose how to spend their resources too.,

Economics Continued

Consolidation for CRCT Preparation (GPS based)

SS4E1 The student will use the basic economic concepts of *trade*, *opportunity cost*, *specialization*, *voluntary exchange*, *productivity*, and *price incentives* to illustrate historical events.

- Describe *opportunity costs* and their relationship to decision-making across time (such as decisions to send expeditions to the New World).
- Explain how *price incentives* affect people's behavior and choices (such as colonial decisions about what crops to grow and products to produce).
- Describe how *specialization* improves standards of living (such as how specific economies in the three colonial regions developed).
- Explain how *voluntary exchange* helps both buyers and sellers (such as prehistoric and colonial trade in North America).
- Describe how *trade* promotes economic activity (such as how trade activities in the early nation were managed differently under the Articles of Confederation and the Constitution).
- Give examples of technological advancements and their impact on business *productivity* during the development of the United States.

Describe *opportunity costs* and their relationship to decision-making across time (such as decisions to send expeditions to the New World).

-Opportunity cost is what you give up when you make a decision.

-An example is when European nations decided to pay voyages of discovery. They could have spent the money elsewhere.

Explain how *price incentives* affect people's behavior and choices (such as colonial decisions about what crops to grow and products to produce).

-Price incentive is something that encourages a person to take a certain action.

-Colonist made decisions to grow crops that made them money. These crops are called cash crops (cotton, tobacco, indigo)

-Crops that are destroyed causes the price of them to increase. The demand for the crops also goes up. The quantity of the crop decreases.

Describe how *specialization* improves standards of living (such as how specific economies in the three colonial regions developed).

-Specialization is a choice by an individual, a business, or a whole country to produce certain items as opposed to others, or even one part of an item.

-In Colonial times, people chose to specialize in growing profitable crops, like tobacco and cotton. In New York people specialized in ship building because the city was an important trade center, so ships were in demand. New England had lots of timber/lumber, so they also specialized in ship building.

Explain how *voluntary exchange* helps both buyers and sellers (such as prehistoric and colonial trade in North America).

-Voluntary exchange is when both traders agree to exchange something with each other. They both feel that they were better off because of the trade.

-In Colonial times, Colonist traded with the native Americans this way. Before money, people used other things to trade.

Describe how *trade* promotes economic activity (such as how trade activities in the early nation were managed differently under the Articles of Confederation and the Constitution).

-Trade makes goods and services that are unevenly distributed in a region or country more available to buyers and sellers.

-The Articles of Confederation did not give Congress strong powers to regulate interstate trade. Later, under the Constitution it did.

Give examples of technological advancements and their impact on business *productivity* during the development of the United States.

-Technology benefits productivity. Technology is the use of science and inventions to improve everyday life.

-In the early 1900s, Henry Ford used the assembly line (when the worker makes only one part) to produce cars. He produced cars faster.

-In the 1980s, computers affected productivity (order goods and services online).

-Advances in transporting goods have been made around the world.

4th Grade

Science GPS

Study Guide

Ecology

Consolidation for CRCT Preparation (GPS based)

S4L1. Students will describe the roles of organisms and the flow of energy within an ecosystem.

--Identify the roles of producers, consumers, and decomposers in a community.

--Demonstrate the flow of energy through a web/food chain beginning with sunlight and including producers, consumers, and decomposers.

--Predict how changes in the environment would affect community (ecosystem) of organisms.

--Predict effects on population if some of the plants or animals in the community are scarce or if there are too many.

Producers

Plants are called producers because they use the energy in sunlight to make, or produce, their own food. Animals, including people, are not producers. Examples are moss, grass, and wildflower

Consumers

Animals, including people are consumers because they eat things.

Decomposers

Decomposers cause dead plants and animals to decay. Decomposers break down dead things into tiny pieces. Examples are mold, mushrooms, earthworms.

Predator

An animal that hunts other animals for food.

Prey

An animal that is hunted.

Food Chain

Together producers and consumers make up a food chain. All food chains begin with a plant (moss, grass, bush, tree). All energy starts with the sun.

Food Web

**Several food chains that are connected are called food webs.
grass-----grasshopper-----bird-----snake**

Ecosystem

Plants and animals live together in communities and depend on each other. A change in one can cause a change in the other.
-Too little rain or too much heat means fewer plants or producers.
-Fewer producers means fewer consumers and fewer prey.
-Fewer prey leads to fewer predators.

Adaptation and Survival

Consolidation for CRCT Preparation (GPS based)

S4L2. Students will identify factors that affect the survival or extinction of organisms such as adaptation, variation of behaviors (hibernation) and eternal features (camouflage and protection).

Adaptation

Characteristics that help a living thing survive. It can be a behavior or a body part.

-Giraffes have long necks.

-Fish have gills and fins.

-Birds have wings and beaks.

Camouflage

A kind of adaptation in the form of shapes or coloring that helps a living thing blend in with the place it lives.

Migrate

Certain behaviors help animals survive. In the winter animals have a hard time finding food so they go to another location for a few months.

Hibernation

Certain animals eat a lot and then sleep, living off the fat stored in their bodies.

Extinction

Sometimes adaptations don't help. The Dodo bird could not fly. Sailors used them for food and they became extinct. They no longer exist.

-Changes in the climate can cause some plants and animals to become extinct.

Water and the Water Cycle

Consolidation for CRCT Preparation (GPS based)

S4E3. Students will differentiate between the states of Water and how they relate to the water cycle and weather.

- Demonstrate how water changes states (ice) to liquid (water) to gas (water vapor/steam) and changes from gas to liquid to solid.
- Identify the temperatures at which water becomes a solid and at which water becomes a gas.
- Investigate how clouds are formed.
- Explain the water cycle (evaporation, condensation, and precipitation).
- Investigate different forms of precipitation and sky conditions (rain, snow, sleet, hail, clouds, and fog).

States of Water

- Ice is a solid.
- Ice melts to form a liquid.
- Liquid evaporates to form a gas. This is called water vapor.
- A change in temperature is what causes liquids to change states.

Degrees

- Liquid water freezes at 0 degrees C (32 degrees F).
- Liquids boil at 100 degrees C

Water Cycle

- Water cycle is the cycling of water between Earth's waters, atmosphere, and land.
- Water cycle starts with the sun.
- Heat from the sun causes evaporation of water from the Earth's surface. The water rises and cools.
- The water vapor in the air then condenses (condensation). Clouds form as this point. They form as droplets of water that condense around dust in the air. If the droplets become heavy enough, they become precipitation. Precipitation is any form of water that falls from clouds to Earth (rain, hail, snow, sleet, freezing rain).

Precipitation

- Rain comes from stratus and nimbostratus clouds. Rain is formed from tiny cloud droplets come together to form raindrops. Ice particles melt into raindrops as they fall through warmer parts of the atmosphere. Thunder showers fall from cumulonimbus clouds.
- Snow falls from cold clouds where water vapor becomes crystals of ice. The ice crystals stay frozen as they fall.
- Sleet comes from small particles of ice that form when rain falls through a layer in the atmosphere that is above freezing, and then through a freezing layer closer to the ground.
- Hail is hard, round ice pellets that form in large cumulonimbus clouds.
- Fog is a stratus-like cloud that forms when water vapor condenses into small water droplets at or near the ground. It is not precipitation.
- Water vapor is the gas form of water (water in a glass will turn to water vapor if left out).

Weather and Weather Instruments

Consolidation for CRCT Preparation (GPS based)

S4E4. Students will analyze weather charts/maps and collect weather data to predict weather events and infer patterns and seasonal changes.

- Identify weather instruments and explain how each is used in gathering weather data and making forecasts.
- Using a weather map, identify the fronts, temperature, and precipitation and use the information to interpret the weather conditions.
- Use observations and records of weather conditions to predict weather patterns throughout the year.
- Differentiate between weather and climate.

Weather Instruments

- Barometers measure air pressure.
- Hygrometers measure humidity.
- Thermometer measure air temperature.
- Anemometers measure wind speed.
- Wind socks and weather vanes measure wind speed.
- Rain gauges measure the amount of rain fall.

Fronts and Pressure

- A cold front forms where a cold air mass moves under a warm air mass. This causes heavy rain, thunderstorms, or snowstorms. The symbol on a map is a blue line with triangles located on the side of the direction the front is moving. Cold air bumps warm air.
- A warm front forms where a warm air mass moves over a cold air mass. This causes rain or snow that can last for hours. The symbol on a map is a red line with half circles on the side of the direction the front is moving. Warm air meets
- A front occurs when two air masses meet.
- L on a map stands for LOW pressure (stormy weather).
- H on a map stands for HIGH pressure (fair weather).

Weather and Climate

- Weather is the condition of the atmosphere at a particular time and place....short period.
- Climate is the pattern of weather an area experiences over a long period of time.
- There are many types of climates. The Earth is split into several climate zones.
- Temperature and precipitation determine climate.

Precipitation and Humidity

- Precipitation is water that falls from clouds. It can be rain, snow, sleet, or hail
- Humidity is a measure of the amount of water in the air.

Solar System

Consolidation for CRCT Preparation (GPS based)

S4E2. Students will model the position and motion of the earth in the solar.

Explain the day/night cycle of the earth using a model.

Explain the sequence of the phases of the moon.

Demonstrate the revolution of the earth around the sun and the earth's tilt to explain the seasonal changes.

Demonstrate the relative size and order from the planets in the solar system.

Earth's Day and Night Cycle	-Earth rotates once every 24 hours. This causes day and night. We have day and night because because Earth rotates (spins). It rotates on its axis (an imaginary line separating North and South).
not,	-As the earth rotates on its axis, the part of it facing the sun has sunlight (day) and the other part does so there is darkness (night).
Sequence of the Moon and Moon Phases	Light from the sun reflects off the moon. This allows us to see the moon at night. -Phases are the different shapes of the moon that we see from Earth. -The moon's phases change from day to day as the moon moves on its orbit around Earth. -It takes the moon about a month to orbit the earth. The moon reflects the sun's light. -The moon's 4 main phases: new moon, first quarter, full moon, and third quarter. ---New moon occurs when none of the moon facing Earth is lit. Earth is between the moon and sun. ---Full moon is a bright, round circle. We see the sun's light reflected from one whole side of the moon. This is when the moon is invisible to Earth. Earth is between the moon and sun. ---During first quarter, half of the moon facing Earth is lit. ---During third quarter, the opposite half of the moon facing Earth is lit. -Other phases: Crescent (sliver of the moon facing Earth is lit) and gibbous (3/4 of the moon facing Earth is lit). -From new moon to full moon, the lit part of the moon that we can see gets larger. The moon's phases are waxing (getting bigger). -Something different happens from full moon back to the next new moon. The lit part of the moon that we can see gets smaller. The moon's phases are waning (getting smaller.)
Seasonal Changes	-Earth's tilt on its axis and its movement around the sun causes the temperature changes that create seasons. -As Earth revolves, different parts of Earth tilt toward the sun. During the summer in the Northern hemisphere, the northern half of Earth is tilted towards the sun. During the winter in the Northern hemisphere, the northern half of the Earth is tilted away from the sun. The same is true for the southern half of the Earth (Southern hemisphere).
Size and Order	-The solar system has 8 planets. - Inner planets are Mercury, Venus, Earth, and Mars. These are made up of mainly rock and metal. -Outer planets are Jupiter, Saturn, Uranus, and Neptune. These are made up of gases. -Order from closest to the sun: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune

Solar System

Consolidation for CRCT Preparation (GPS based)

S4E1. Students will compare and contrast the physical attributes of stars, star patterns, and planets.

- Recognize the physical attributes of stars in the night sky such as size, color, and patterns.**
- Compare the similarities and differences of planets to the stars in appearance, position, and number in the night sky.**
- Explain why the pattern of stars in a constellation stays the same, but a planet can be seen in different locations at different times.**
- Identify how technology is used to observe distant objects in the sky.**

Stars

-There are more than 1,000 stars in the night sky.

-Stars are huge balls of hot gas.

-Color: -A star's temperature determines its colors.

-Hottest stars are blue.

-Cooler stars are white.

-Even cooler stars are yellow.

-Stars cooler than the sun are orange.

-Coolest stars are red.

-Brightness: -The brightness of a star depends on size and temperature.

-The larger and hotter a star is, the more light it gives off.

-The stars that are closer to Earth appear brighter.

-Size: -Stars come in many different sizes.

-The sun is a medium sized star.

-Some stars are larger and some are smaller.

-Patterns: -There are 88 constellations (patterns of stars).

-The pattern of stars in a constellation stay the same.

-Stars do not move. They seem to move as Earth moves around the sun and you see different parts of space.

-Stars seem to twinkle (blink off and on). This happens because Earth's atmosphere distorts dim light from the stars.

Planets

-Planets move around the sun. Stars don't move.

-You can see 5 of 8 planets with your eyes.

-Planets don't twinkle. They are brighter than stars.

Technology-Astronomers use many different tools to observe things in space.

-Telescope-Makes far away objects look larger and clearer.

-Hubble Space Telescope-Telescope put into space in 1990. It takes pictures of stars and other objects.

-Space Probes-A spacecraft gathers data. They take pictures.

-Example probes include the Pioneer, Voyager, Voyager 2, and New Horizons.

Simple Machines/Force and Motion

Consolidation for CRCT Preparation (GPS based)

S4P3. Students will demonstrate the relationship between the application of a force and the resulting change in position and motion on an object.

-Identify simple machines and explain their uses. (level, pulley, wedges, inclined plane, screw, wheel, and axle)

-Using different size objects, observe how force affects speed and motion.

-Explain what happens to the speed or direction of an object when a greater force that the initial one is applied.

-Demonstrate the effect of gravitational force on the motion of an object.

Simple Machine-A tool that makes work easier

Level	Pulley	Wedges	Inclined Plane	Screw	Wheel and Axle
<p><u>-Lever is a bar that moves on a fulcrum.</u></p> <p><u>-The fulcrum is the center point of a lever.</u></p> <p><u>-Lift or open things.</u></p>	<p><u>-A wheel with a rope around it for lifting things.</u></p> <p><u>-Lift or pull things.</u></p>	<p><u>-An inclined plane with two sloped sides.</u></p> <p><u>-Split an object or give an outward push to a material.</u></p>	<p><u>-A simple machine with a sloped side.</u></p> <p><u>-Move things to a higher place.</u></p>	<p><u>-An inclined plane that is wrapped around a center rod.</u></p> <p><u>-Hold things together or move things.</u></p>	<p><u>-A wheel with a rod attached to the center of it.</u></p> <p><u>-Turn things.</u></p>

How Force Affects Speed and Motion

Force-A push or pull

Mass-Amount of matter that makes up an object (this determines how much its motion is changed by a force.

Speed-Rate at which an object moves. Speed depends on the distance an object moves and the time it takes to move that distance.

-If 2 objects move the same amount of time, the one that moves farther has the greater speed.

-If they move the same distance, the one that finishes first has the greater speed.

-A force can change the motion of an object. If an object is not moving, a force can make it move. It moves in the same direction as the force.

-If an object is moving, a force in the same direction increases its speed. A force in the opposite direction decreases its Speed.

Force and Motion

Consolidation for CRCT Preparation (GPS based)

S4P3. Students will demonstrate the relationship between the application of a force and the resulting change in position and motion on an object.

- Identify simple machines and explain their uses. (level, pulley, wedges, inclined plane, screw, wheel, and axle)**
- Using different size objects, observe how force affects speed and motion.**
- Explain what happens to the speed or direction of an object when a greater force that the initial one is applied.**
- Demonstrate the effect of gravitational force on the motion of an object.**

Mass and Motion

- The motion of an object depends on the object's mass.**
- Think of a force pushing on two objects. The one with less mass will move faster and farther.**
- Think of different forces on the same object. A large force will make an object move faster and farther than a small force will.**
- The mass of the bowling ball is greater than the mass of the table tennis ball. If you hit both balls with the same force, the table tennis ball will move much faster. It will also move a longer distance.**
- If you hit the table tennis ball gently, it will move slowly. It will only move a short distance. If you hit it hard, it will move at a faster speed and travel a longer distance.**

Gravity and Motion

- Gravity is a force that pulls things toward each other. Earth's gravity pulls things down. Gravity affects the motion of an object.**
- Gravity acts on all things. It can change the speed and direction of a moving object. It increases the speed of a falling object.**
- A fallen object like a dropped ball will speed up as it nears the ground.**
- Gravity acts on objects that are not falling. Think about a ball rolling across the floor. Gravity does not change the ball's motion because gravity only pulls downward.**
- Gravity changes the motion of objects that moves in the air. If you throw a ball, gravity pulls it down.**
- Gravity pulls a ball on a ramp downward. The ball's speed increases as it rolls because of gravity.**

Light

Consolidation for CRCT Preparation (GPS based)

S4P1. Students will investigate the nature of light using tools such as mirrors, lenses, and prisms.

-Identify materials that are transparent, opaque, and translucent.

-Investigate the reflection of light using a mirror and a light source.

-Identify the physical attributes of a convex lens, concave lens, and a prism and where each is used.

Material and Light

-Light is a type of energy that you can see. It moves from place to place. It travels in a straight line.

-When light strikes an object, it can reflect, transmit, or absorb light.

--Reflect-bounce off the object.

--Transmit-Let it pass through.

--Absorb-Takes in light.

-Transparent material- Something you can see through clearly (air, water, window, eyeglasses).

-Opaque material- Something you cannot see through. It reflects most of the light that strikes it (book, brick, wood, metal, cardboard).

-Translucent material- Something you can see through, but not clearly (frosted glass, tissue paper, notebook paper, waxed paper)

Reflection

-Reflection is the bouncing of light off a surface.

-Light always reflects the same way from smooth surfaces. If the surface is rough, the light reflects in many directions.

-Some light is always absorbed when it strikes a surface. A mirror is very smooth so it reflects most of the light that strikes it.

-Objects that have a dark color absorb much of the light that strikes them. Most of the light that strikes a white object is reflected. Most of the light that strikes a black object is absorbed.

Lens

-A convex lens is a lens that is thicker in the middle than at the edges (eye glasses used to see things clearer.)

-A concave lens is thicker at the edge than in the middle (eyeglasses that are used to see things far away.)

-A prism is a three-dimensional, triangular object made of clear glass or plastic that can change the path of light (camera, binocular.) Prisms are used to split light into colors (white light is a mix of all colors).

Sound

Consolidation for CRCT Preparation (GPS based)

S4P2. Students will demonstrate how sound is produced by vibrating objects and how sound can be varied by changing the rate of vibration.

- Investigate how sound is produced.

- Recognize the condition that cause pitch to vary.

-Sound is a type of energy that you can hear.

-All sounds are made by something vibrating. Vibrate means to move back and forth.

-Sound can change if an object vibrates faster or slower.

-An object that moves through empty space does not make a sound. Sound cannot move through empty space. It must move through a solid, liquid, or gas.

-Sound moves fastest through solids and slowest through gases.

-Pitch is high or low a sound is. Fast vibrations mean a high pitch (small bell). Slow vibrations mean a low pitch (big drum).

-Volume is how loud a sound is. If you ring a small bell strongly, it has a high volume. If you ring the bell gently, it has a low volume. The pitch doesn't change either way you ring the bell.

-Musical instruments makes sounds in different ways. Some make sounds by vibrating strings.

-A short string has a higher pitch than a long string. A thin string has a higher pitch than a thick string.

-Flutes and clarinets make sounds by air vibrating in a tube. Shorter tubes make sounds with higher pitch.

-A drum makes a sound when its outer part vibrates ad makes nearby air vibrate.

-You can change the pitch of sound by changing how fast an object vibrates.

-A tightly stretched rubber band, vibrates fast when you pull on it. It makes a high pitch sound.

-If a rubber band is not stretched as tight, it vibrates slower and makes a lower pitch when pulled.

Scientific Method

Consolidation for CRCT Preparation (GPS based)

S4CS8: Students will understand important features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:

--Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.

-Always be safe when working with science equipment. Get permission before starting an experiment. Wear the proper safety gear (goggles, gloves, aprons) when working with science. Roll up your sleeves. Don't mix chemicals without permission and supervision. Do not eat/drink during an experiment. Wash your hands after handling things. Clean up thoroughly. Try not to spill chemicals and other things in the lab.

-Scientists use the scientific method to conduct scientific investigations. -A scientific method is a set of steps you use to answer a scientific question.

-First step is to notice something and to ask questions to help you plan the investigation. This is called observation.

-The next step is to answer your question. You do this by forming a hypothesis. This is a guess about the answer to a scientific question.

-You then have to plan your experiment in order to test your hypothesis.

-You have variables (a condition in your experiment that can change) in your experiment. For example you are testing how light affects a plant's growth, so you use 2 different light colors. That is the only variable that changes.

-You actually now have to conduct the experiment that you have planned.

-Once you conduct the experiment, you have to write down (record) and analyze (figure out the meaning of data) your data (information) found during the experiment. You analyze the data by looking for patterns. This helps you understand what happened and to draw conclusions.

-Your conclusion is a decision that comes from analyzing data.

-Scientists use many different tools in science. These tools include graphs, data tables, equipment, models, symbols, and others.

-Scientists share their scientific findings with others by writing the information down. They have to support their findings