

4th Grade: GCPS Core Curriculum Calendar for Scope and Sequence – 2010-2011

4TH GRADE

1st Quarter (First Nine Weeks)

MATHEMATICS	SCIENCE	SOCIAL STUDIES
<p>AKS 1-19 Ongoing</p> <p><u>Unit 1 Number Sense</u></p> <p>21 use standard and expanded form 22 round numbers 23 determine appropriate rounding 25 estimate by rounding</p> <p><u>Unit 2 Data Analysis</u></p> <p>65 create line graphs 66 determine range, mode, and median of data 67 analyze and compare features of graphs (line graphs, line plot graphs, pictographs, Venn diagrams, and bar graphs) including missing information and duplications in data</p> <p><u>Unit 3 Coordinate System</u></p> <p>55 locate, name & graph ordered pairs 56 locate a point in first quadrant</p>	<p>AKS 1-7 Ongoing</p> <p><u>Water, Weather & Forecasting</u></p> <p>10) differentiate between the states of water and how they relate to the water cycle and weather (GPS, ITBS) 10a) demonstrate how water changes states from solid (ice) to liquid to gas (water vapor, steam) and changes from gas to liquid to solid 10b) identify the temperature at which water becomes a solid (32 degrees F, 0 degrees C) and at which water becomes a gas (212 degrees F, 100 degrees C) 10c) identify cloud types and formation and how clouds relate to the water cycle 10d) demonstrate and explain the water cycle and the role of evaporation, precipitation and condensation 10e) investigate different forms of precipitation (rain, snow, sleet, hail) and sky conditions (clouds, fog)</p> <p>11) analyze weather charts/maps and collect weather data to predict weather events and infer patterns and seasonal changes 11a) use weather instruments (thermometer, rain gauge, barometer, wind vane, anemometer) to collect data and measure atmospheric conditions (temperature, humidity, air pressure, wind speed, direction) 11b) explain how weather instruments are used to make forecasts 11c) identify fronts, temperature and precipitation on a weather map and use the information to interpret and forecast upcoming weather conditions 11d) use observations and records of weather conditions to predict weather patterns throughout the year 11e) differentiate between weather and climate, and identify Earth's climate zones</p>	<p>AKS 1-29 Ongoing</p> <p><u>Native American Cultures</u></p> <p>30 describe how early Native American cultures developed in North America 31 locate important physical and man-made features in the United States</p> <p><u>European Exploration in North America</u></p> <p>32 describe European exploration in North America 33 compare and contrast examples of cooperation and conflict between Europeans and Native Americans 34 name positive character traits of key historic figures and government leaders (honesty, patriotism, courage, trustworthiness) 35 use the basic economic concepts of trade, opportunity cost, specialization, voluntary exchange, productivity and price incentives to illustrate historical events</p> <p><i>Note: Indicators of Achievement are taught with all AKS</i></p>

LANGUAGE ARTS

<i>Genre: Personal Narrative</i>	<i>Genre: Narrative/Response to Literature</i>
<p><u>Listening/Speaking/Viewing :</u></p> <p>8 clarify, illustrate, or expand on responses 9 restate main ideas and details, questioning, inferring, summarizing, offering opinions, and drawing conclusions 10 initiate new topics in addition to responding to adult-initiated topics</p> <p><u>Reading:</u></p> <p>21 plot, theme, character 34 identify organizational patterns (chronological, order of importance, and problem/solution) 37 make and defend judgments and inferences about setting and events and support them with elaborating and convincing evidence from the text 40 foreshadowing 42 identify, analyze, compare, and contrast characters and their actions to make inferences about events in the story, motives, emotions, and traits 43 identify similarities and differences between characters or events and theme</p> <p><u>Word Study:</u></p> <p>48 synonyms, antonyms, homophones 49 use knowledge of Greek and Latin roots to read new words and determine their meanings (com-, -er, hydr)</p>	<p><u>Writing:</u></p> <p>57 structure/types of sentences- declarative/interrogative/imperative/ exclamatory; simple/ compound 61 conjunctions 62 correct sentence punctuation; commas to set off compound sentences and for items in a series</p> <p><u>Narrative:</u></p> <p>79 write ideas in story form with attention to sequence, main ideas, and supporting details 80 engage the reader by establishing a context, creating a point of view, and otherwise developing reader interest 81 establish a plot, setting, conflict, and/or the significance of events 82 use sensory details and concrete language to develop plot and character 83 develop complex characters through actions describing the motivation of characters and character conversation 84 use a range of appropriate narrative strategies such as dialogue, tension, or suspense</p> <p><u>Response to Literature:</u></p> <p>93 write a response to literature that is interpretive, evaluative, or reflective 94 support judgments through references to the text, other works, authors, or non-print media, or references to personal knowledge 95 write a summary to demonstrate understanding of literary works to include main idea and significant details</p> <p><u>Reference/Study Skills:</u></p> <p>96 author, illustrator, publisher and publication date 100 use appropriate resources to gather information from reference works: magazines, newspapers, prefaces, appendices, indices, glossaries, and bibliographies 104 draw from sources of information such as speakers, books, newspapers, and online materials</p>

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4TH GRADE

2nd Quarter (Second Nine Weeks)

MATHEMATICS	SCIENCE	SOCIAL STUDIES
<p>Unit 4 Multiplication 26 solve problems involving 2 and 3 digits by 1 and 2 digits</p> <p>Unit 5 Measurement/Weight 57 estimate weight 58 compare weight units</p> <p>Unit 6 Multiplication/Division 27 use whole numbers to divide 28 use facts with understanding and fluency 29 solve problems involving division with remainders 30 explain the relationship of dividend, divisor, quotient, remainder 31 explain effect on quotient of multiplying or dividing by same number 42 explain and use properties 43 describe relationship among the four operations</p> <p>Unit 7 Order of Operations 44 compute using order of operations 45 identify and explain and solve using properties 46 use mental math and estimation</p>	<p>Solar System and Beyond, Stars and Star Patterns 8) analyze the components of our solar system and their relationship to one another (GPS, ITBS) 8a) compare and contrast the physical attributes (number, size, color, patterns) of stars in the night sky (GPS) 8b) compare the similarities and differences of planets to the stars in appearance, position and number in the night sky (GPS) 8c) explain why the pattern of stars in a constellation stays the same but a planet can be seen in different locations at different times (seasons) (GPS) 8d) compare and contrast the earth and other planets in our solar system 8e) explain how technology is used to observe the universe (telescopes, sensors) (GPS)</p> <p>Phases of the Moon 9) analyze the role of relative position and motion in determining the sequence of the phases of the moon (GPS, ITBS) 9a) model the position and motion of the earth in the solar system (GPS) 9b) explain the day/night cycle using a model (GPS) 9c) explain and illustrate the sequence of the phases of the moon (GPS) 9d) demonstrate how it is the earth's tilt and orbit around the sun rather than the earth's distance from the sun that causes seasonal changes (GPS) 9e) illustrate the relative size and order from the sun of the planets in the solar system (GPS) 9f) explain how hemispheres and other characteristics of the earth's surface cause seasonal and climate variations</p> <p>Light 12) investigate the nature of light using tools (mirrors, lenses, prisms) (GPS, ITBS) 12a) identify materials that are transparent, opaque, and translucent (GPS) 12b) investigate the reflection of light using a mirror and a light source (GPS) 12c) identify the physical attributes of a convex lens, a concave lens, and a prism and where each is used (GPS) 12d) demonstrate how light can be transmitted, absorbed, scattered, reflected, refracted and/or separated into a visible spectrum</p>	<p>Colonial America 36 explain the factors that shaped British colonial America 37 describe colonial life in America as experienced by various people, including large landowners, farmers, artisans, women, indentured servants, slaves and Native Americans 38 name positive traits of key historic figures and government leaders (honesty, patriotism, courage, trustworthiness) 39 use basic economic concepts of trade, opportunity cost, specialization, voluntary exchange, productivity and price incentives to illustrate historical events</p> <p>The Road to the Revolution 40 trace the events that shaped the revolutionary movement in America 41 explain the development of the Declaration of Independence 43 describe key individuals in the American Revolution 45 name positive character traits of key historic figures and government leaders (honesty, patriotism, courage, trustworthiness) associated with the American Revolution 46 use the basic economic concepts of trade, opportunity cost, specialization, voluntary exchange, productivity and price incentives to illustrate historical events specific to the American Revolution</p> <p><i>Note: Indicators of Achievement are taught with all AKS</i></p>

LANGUAGE ARTS

<i>Genre: Nonfiction</i>	<i>Genre: Informational</i>
<p>Listening/Speaking/Viewing: 3 use language cues to indicate different levels of certainty or hypothesizing (e.g., “What if. . .”; “Very likely. . .”; “I’m unsure whether. . .”) 14 present information through reports, demonstrations, and projects 16 use notes, multimedia, or other memory aids to structure presentations</p> <p>Reading: 29 paragraphs, topic sentences, concluding sentences, glossary, headings, italics and graphics 34 identify organizational patterns (logical [including spatial] and cause/effect) 35 cause from effect in context 38 locate facts that answer questions 44 distinguish fact from opinion or fiction</p> <p>Word Study: 49 use knowledge of Greek and Latin roots to read new words and determine their meanings (pro-, -ible, -able, biblio, photo)</p>	<p>Writing: 55 adjectives and adverbs 58 maintain consistent number, gender, point of view and verb tense</p> <p>Informational: 85 write an informational piece in various content areas that is organized, uses appropriate facts and details, and reflects the intended audience 86 frame a central question about an issue or situation 87 create an organizing structure appropriate to a specific purpose, audience, and context 88 use appropriate facts and details 89 use a range of appropriate strategies such as providing facts and details, describing or analyzing the subject, and narrating a relevant anecdote 90 draw from more than one source of information such as speakers, books, newspapers, and online materials</p> <p>Reference/Study Skills: 98 table of contents, index, glossary, guide words, appendix 102 maps, webs, outlines</p>

4th Grade: GCPS Core Curriculum Calendar for Scope and Sequence – 2010-2011

4 TH GRADE			3 rd Quarter (Third Nine Weeks)		
<p align="center">MATHEMATICS</p> <p>Unit 8 Decimals/Fractions</p> <p>20 identify place value-hundredths to millions</p> <p>24 round decimals using number lines and/or hundreds chart</p> <p>32 model decimals</p> <p>33 compare and order decimals</p> <p>34 +/- of decimals</p> <p>35 model \times / \div of decimals</p> <p>36 \times / \div of decimals</p> <p>37 investigate relationships btw common fractions & decimal fractions</p> <p>41 model, compare and order fractions</p> <p>38 identify and represent equivalent fractions</p> <p>39 +/- fractions and mixed numbers</p> <p>40 convert and use mixed numbers</p> <p>Unit 9 Plane Figures</p> <p>47 identify geometric figures</p> <p>48 examine and compare angles</p> <p>49 describe parallel and perpendicular line segments in geometric shapes</p> <p>50 identify quadrilaterals</p> <p>51 compare quadrilaterals</p> <p>Unit 10 Measurement/Angles</p> <p>59 measure angles</p> <p>60 determine meaning of half and full rotation</p>	<p align="center">SCIENCE</p> <p>Sound</p> <p>13) investigate how sound is produced by vibrating objects</p> <p>13a) demonstrate how sound is produced and how it can be varied by changing the rate of vibration</p> <p>13b) define sound as a form of energy</p> <p>13c) recognize the conditions that cause pitch to vary</p> <p>13d) relate attributes of waves (wavelength, frequency) to sound (pitch, intensity)</p> <p>13e) illustrate how sound travels in a solid, liquid and gas</p> <p>Force, Mass, Motion & Simple Machines</p> <p>14) demonstrate the relationship between force and motion</p> <p>14a) identify the nature of work</p> <p>14b) identify and demonstrate forces such as push and pull</p> <p>14c) observe how force and friction affect speed and motion using different sized objects</p> <p>Effects of Gravity</p> <p>14d) identify and compare simple machines (lever, pulley, wedge, inclined plane, screw, wheel and axle) and their uses</p> <p>14e) explain what happens to the speed or direction of an object when a greater force than the original force is applied</p> <p>14f) demonstrate the effect of gravitational force on the motion of an object</p> <p>Ecosystems, Food Chains, Food Webs</p> <p>15) describe the roles of organisms and the flow of energy within an ecosystem</p> <p>15a) identify the roles of producers consumers and decomposers in a community</p> <p>15b) construct a food chain/food web and explain the flow of energy beginning with sunlight and including producers, consumers and decomposers</p> <p>15c) predict how changes in the environment affect a community of organisms within an ecosystem</p> <p>15d) predict the effect on a population if some of the plants or animals in the community are scarce or too plentiful</p>	<p align="center">SOCIAL STUDIES</p> <p>Revolutionary War</p> <p>42 describe the major events of the Revolution and explain the factors leading to American victory and British defeat</p> <p>43 describe key individuals in the American Revolution</p> <p>44 describe how physical systems affect human systems in regard to the American Revolution</p> <p>45 name positive character traits of key historic figures and government leaders (honesty, patriotism, courage, trustworthiness) associated with the American Revolution</p> <p>The New Nation</p> <p>47 analyze the challenges faced by the new nation</p> <p>48 differentiate natural rights as found in the Declaration of Independence (the right to life, liberty and the pursuit of happiness)</p> <p>49 compare and contrast "We the People" from the Preamble to the U.S. Constitution as a reflection of consent of the governed or popular sovereignty</p> <p>50 explain the federal system of government in the U.S.</p> <p>51 discuss the importance of freedom of expression as written in the First Amendment to the U.S. Constitution</p> <p>52 describe the functions of the government</p> <p>53 explain the importance of Americans sharing certain central democratic beliefs and principles, both personal and civic</p> <p>54 describe how physical systems affect human systems in regard to development of a new nation</p> <p>55 use the basic economic concepts of trade, opportunity cost, specialization, voluntary exchange, productivity and price incentives to illustrate historical events specific to the development of a new nation</p> <p>Westward Expansion</p> <p>56 explain westward expansion of America between 1801 and 1861</p> <p>57 describe the economic conditions and the effect on growth and expansion</p> <p>58 locate important physical and man-made features in the United States</p> <p>59 describe how physical systems affect human systems in regard to westward expansion</p> <p><i>Note: Indicators of Achievement are taught with all AKS</i></p>			
LANGUAGE ARTS					
<p align="center"><i>Genre: Persuasive/Poetry</i></p> <p>Listening/Speaking/ Viewing:</p> <p>19 shape content and organization according to criteria for importance and impact rather than according to availability of information in resource materials</p> <p>Reading:</p> <p>24 meter, rhyme, rhythm in poetry</p> <p>41 identify figurative use of language including imagery, sensory language, simile, metaphor, alliteration, personification, and exaggeration in a variety of texts including poetry</p> <p><i>2010-1 identify the speaker of a poem or story</i></p> <p>Word Study:</p> <p>52 idioms and figurative phrases</p> <p>49 use knowledge of Greek and Latin roots to read new words and determine their meanings (auto-, multi-, -ology, phon)</p>			<p align="center"><i>Genre: Persuasive/Poetry</i></p> <p>Writing:</p> <p>56 modifiers</p> <p>60 positive, comparative, and superlative adjectives and adverbs</p> <p>Persuasive:</p> <p>91 write a persuasive essay that states a clear position, supports the position, and excludes unnecessary information</p> <p>92 select a focus, an organizational structure, and a point of view based on purpose, genre expectations, audience, length, and format requirements</p> <p>Reference/Study Skills:</p> <p>101 summarizing, paraphrasing, plagiarizing</p>		

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4 TH GRADE			4 th Quarter (Fourth Nine Weeks)		
<p align="center">MATHEMATICS</p> <p><u>Unit 11 Solid Figures</u> 52 compare cube and rectangular prism 53 identify and describe parallel and perpendicular edges in rectangular prism 54 construct models for cube, prisms, and cylinders</p> <p><u>Unit 12 Algebra</u> 61 investigate and represent patterns and functions 62 interpret quantitative expressions 63 represent unknowns and variables 64 evaluate mathematical expressions</p> <p>CRCT Testing Preview 5th grade</p>	<p align="center">SCIENCE</p> <p><u>Adaptation, Survival, Extinction</u> 16) explain various factors (adaptation, variation, behavior, external features) that affect the survival or extinction of organisms 16a) identify external features of organisms that allow them to grow, survive or reproduce better than organisms that do not have these features (camouflage, use of hibernation, protection methods) 16b) identify factors that may have led to the extinction of some organisms</p> <p><u>Preview/Review</u> Schools can choose to use this time to either extend content covered prior to the CRCT or begin to preview (or pre-teach) the subsequent course. Materials for previewing are available on the GCPS Science website (http://gwinnettk12online.net/).</p>	<p align="center">SOCIAL STUDIES</p> <p><u>Reform Movements</u> 60 examine the main ideas of the abolitionist and suffrage movements 61 name positive character traits of key historic figures and government leaders (honesty, patriotism, courage, trustworthiness) associated with the reform movements 62 use the basic economic concepts of trade, opportunity cost, specialization, voluntary exchange, productivity and price incentives to illustrate historical events specific to the reform movements</p> <p><u>Personal Finance</u> 63 identify the elements of a personal budget and explain why personal spending and saving decisions are important</p> <p>CRCT Testing & Review Preview Fifth Grade AKS 30</p>			
LANGUAGE ARTS					
<p align="center"><i>Genre: Fiction/Fantasy/Drama</i></p> <p><u>Reading:</u> 52 playful language puns, jokes, and palindromes</p> <p><u>Word Study:</u> 49 use knowledge of Greek and Latin roots to read new words and determine their meanings (micro-, tele-, -arium, terr)</p>			<p align="center"><i>Genre: Imaginative Writing/Drama</i></p> <p><u>Writing:</u> No new AKS introduced</p> <p><u>Reference/Study Skills:</u> No new AKS introduced</p>		