## Numerical Relationships
- Whole Numbers:
  - Identify the place value of each digit in whole numbers through one million
  - Read, write, and compare whole numbers
  - Round whole numbers to the nearest thousand, ten thousand, and hundred thousand
  - Represent whole numbers on a number line

- Fractions and Decimals:
  - Compare and order fractions and mixed numbers having denominators of 12 or less
  - Represent equivalent fractions and decimal/fraction equivalents
  - Read, write, compare, and order decimals through thousandths
  - Round decimals to the nearest whole number, tenth, and hundredth
  - Represent decimals on a number line

## Operations
- Estimation:
  - Estimate whole number sums, differences, products, and quotients
  - Refine estimates by adjusting the final amount
  - Estimate sums and differences of fractions

- Procedures for Computation:
  - Add, subtract, multiply, and divide whole numbers
  - Interpret the remainder in problem solving settings
  - Add and subtract fractions using common multiples and factors
  - Add and subtract decimals
  - Solve single-step and multistep problems involving addition, subtraction, multiplication, and division of whole numbers and addition and subtraction of fractions and decimals

## Measurement
- Customary and Metric Units:
  - Estimate and measure weight/mass (ounces, pounds, tons, grams, kilograms)
  - Estimate and measure length to the nearest eighth inch and to the nearest millimeter
  - Estimate and measure liquid volume (cups, pints, quarts, gallons)

## Geometry
- Identify, Classify, and Transform Shapes:
  - Identify and describe points, lines, line segments, rays, and angles including endpoints and vertices
  - Identify situations that represent parallel, perpendicular, and intersecting lines
  - Recognize the congruence of plane figures resulting from transformations

## Data Analysis, Statistics, and Probability
- Collect, Organize, Analyze Data:
  - Collect, organize, display, and interpret data on bar graphs, line graphs, and line plots

## Patterns, Functions, and Algebra
- Patterns:
  - Describe, create, and extend geometric and numerical patterns

- Functions:
  - Write equations to demonstrate equivalent mathematical relationships
  - Investigate and describe the associative properties for addition and multiplication
# Grade 4 Language Arts
## A Year at a Glance

### Communication
**Speaking, Listening, Media Literacy**

- Present Accurate Directions:
  - Identify necessary information
  - Organize and sequence information

- Contribute to Group Discussions:
  - Offer comments relevant to a topic
  - Learn not to interrupt, take turns speaking
  - Use grammatically correct language and specific vocabulary
  - Ask clarifying questions
  - Provide explanations
  - Collaborate with diverse teams
  - Work independently on group tasks

- Seek Ideas and Opinions of Others

- Use Evidence to Support Opinions:
  - Distinguish fact from opinion
  - Support opinions appropriately

- Make and Listen to Oral Presentations:
  - Speak clearly
  - Use language and style appropriate to the audience
  - Organize information around a central idea with supporting details and specific vocabulary

- Media Literacy:
  - Differentiate among auditory, visual, and written media messages
  - Identify the characteristics of various media

### Reading
**Content**

- Read and Identify Characteristics of:
  - Fiction (realistic, historical)
  - Functional formats (advertisements, flyers, directions)

- Use Text Features:
  - Animations
  - Captions
  - Charts
  - Diagrams
  - Graphics
  - Graphs
  - Headings (section and chapter)

- Select and Use Appropriate Resources:
  - Atlases
  - Dictionaries
  - Encyclopedias
  - Glossaries

- Read for Meaning:
  - Use prior knowledge as context for new learning
  - Identify the main idea
  - Identify cause and effect
  - Distinguish between fact and opinion
  - Explain author’s purpose

**Process**

- Read with Fluency, Accuracy, and Expression

- Self-Monitor and Solve Problems when Reading:
  - Use reading strategies throughout the reading process to monitor comprehension
  - Maintain a reading log
  - Establish and review reading goals

- Demonstrate Comprehension:
  - Make, confirm, and revise predictions
  - Formulate questions
  - Identify new information gained from reading
  - Make connections
  - Draw conclusions and make inferences
  - Summarize

- Develop an Understanding of New Vocabulary:
  - Use context to clarify meaning
  - Use knowledge of roots, affixes, synonyms, antonyms, and homophones
  - Use word-reference materials
  - Listen to and read a variety of texts to gain new vocabulary
  - Use content area vocabulary
  - Identify sensory words

*Italicized items provide connections and/or extensions.*
# Grade 4 Science

## A Year at a Glance

<table>
<thead>
<tr>
<th>Living Systems</th>
<th>Earth and Space</th>
<th>Physical</th>
<th>Investigation</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plants</td>
<td>Weather</td>
<td>Electricity</td>
<td>Observation</td>
<td>Nonstandard</td>
</tr>
<tr>
<td>★ Physical Characteristics</td>
<td>★ Forecast</td>
<td>★ Circuits</td>
<td>★ Tools</td>
<td></td>
</tr>
<tr>
<td>★ Life Needs</td>
<td>★ Instruments</td>
<td>★ Conductors</td>
<td>★ Hypothesis</td>
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<tr>
<td>★ Life Cycle</td>
<td>★ Symbols</td>
<td>★ Insulators</td>
<td>★ Variables</td>
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<tr>
<td>★ Products</td>
<td>★ Clouds</td>
<td>★ Electromagnets</td>
<td>★ Constant</td>
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<td>Photosynthesis</td>
<td>★ Storms</td>
<td></td>
<td>★ Control</td>
<td></td>
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<tr>
<td>★ Pollination</td>
<td>★ Water Cycle</td>
<td>Objects in Motion</td>
<td>★ Repeated Trial</td>
<td></td>
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<tr>
<td>★ Flower Structure</td>
<td>★ Acid Rain</td>
<td>★ Force</td>
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<tr>
<td>★ Bee</td>
<td></td>
<td>★ Friction</td>
<td></td>
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<tr>
<td>★ Interdependence</td>
<td></td>
<td>★ Resistance</td>
<td></td>
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<tr>
<td>Ecosystem</td>
<td>Earth–Sun–Moon Relationships</td>
<td></td>
<td>Prediction</td>
<td></td>
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<tr>
<td>★ Adaptations</td>
<td>★ Revolution</td>
<td></td>
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<tr>
<td>★ Community</td>
<td>★ Rotation</td>
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<td>★ Food Web</td>
<td>★ Seasons</td>
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<td></td>
<td>★ Phases of Moon</td>
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<td></td>
<td>Virginia’s Natural Resources</td>
<td></td>
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<tr>
<td></td>
<td>★ Watershed</td>
<td>Objects in Motion</td>
<td></td>
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<tr>
<td></td>
<td>★ Animals and Plants</td>
<td>★ Force</td>
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<td></td>
<td>★ Forests</td>
<td>★ Friction</td>
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<tr>
<td></td>
<td>★ Rocks, Soils, and Minerals</td>
<td>★ Resistance</td>
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</tr>
</tbody>
</table>

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### Grade 4 Social Studies
#### A Year at a Glance

<table>
<thead>
<tr>
<th>People</th>
<th>Places</th>
<th>Documents</th>
<th>Time Periods</th>
<th>Big Ideas</th>
<th>Skills</th>
</tr>
</thead>
</table>
| Virginia’s current state-recognized tribes:  
  • Chickahominy  
  • Eastern Chickahominy  
  • Mattaponi  
  • Monacan  
  • Nansemond  
  • Pamunkey  
  • Rappahannock  
  • Upper Mattaponi  
  American Indian tribes of the past:  
  • Cherokee  
  • Monacan  
  • Powhatan  
  Christopher Columbus  
  King of England  
  John Smith  
  Chief Powhatan  
  Pocahontas  
  Thomas Jefferson  
  James Lafayette  
  George Washington  
  Patrick Henry  
  Jack Jouett  
  James Madison  
  George Mason  
  Nat Turner  
  Harriet Tubman  
  John Brown  
  Abraham Lincoln  
  General Thomas “Stonewall” Jackson  
  Robert E. Lee  
  General Ulysses S. Grant  
  Woodrow Wilson  
  George C. Marshall  
  Maggie L. Walker  
  Harry F. Byrd, Sr.  
  Oliver W. Hill, Sr.  
  A. Linwood Holton, Jr.  
  Arthur R. Ashe, Jr.  
  L. Douglas Wilder  | Virginia’s Regions:  
  • Coastal Plain (Tidewater)  
  • Piedmont  
  • Blue Ridge Mountains  
  • Valley and Ridge  
  • Appalachian Plateau  
  Atlantic Ocean  
  Chesapeake Bay  
  Potomac River  
  Rappahannock River  
  York River  
  James River  
  Dismal Swamp  
  Lake Drummond  
  The Fall Line  
  Eastern Shore  
  States that border Virginia  
  Werowocomoco  
  Western Europe  
  West Africa  
  Jamestown  
  Williamsburg  
  Richmond  
  Yorktown  
  Great Britain  
  Great Bridge  
  West Virginia  
  Appomattox Court House  
  Fairfax County  | Charters of the Virginia Company  
  Declaration of Independence  
  Virginia Declaration of Rights  
  Virginia Statute for Religious Freedom  | Seventeenth Century  
  1607–1699  
  Eighteenth Century  
  1700–1799  
  Nineteenth Century  
  1800–1899  
  Twentieth Century  
  1900–1999  
  Twenty-first Century  
  2000–present  | Settlement and expansion  
  Colonial life  
  Economic growth  
  Declaring freedom  
  Migration  
  Civil War conflict  
  Reconstruction  
  Segregation  
  Growth of cities  
  Transportation developments  
  Technology  
  Products and industries  
  Tourism  | Analyze and interpret maps  
  Interpret primary sources  
  Analyze documents  
  Determine cause and effect  
  Compare and contrast events  
  Draw conclusions  
  Sequence events  
  Recognize different perspectives |

Italicized items are an extension beyond the Virginia Standards of Learning.
# Grade 4 Language Arts

## A Year at a Glance

<table>
<thead>
<tr>
<th>Writing</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content</strong></td>
<td><strong>Process</strong></td>
</tr>
<tr>
<td>Write a Variety of Forms:</td>
<td>Use Technology to Plan, Draft, Revise, Edit, and Publish Writing</td>
</tr>
<tr>
<td>★ Information</td>
<td>Plan:</td>
</tr>
<tr>
<td>★ Persuasion</td>
<td>★ Identify intended audience</td>
</tr>
<tr>
<td>★ Personal narratives</td>
<td>★ Focus on one aspect of a topic</td>
</tr>
<tr>
<td>★ Realistic fiction</td>
<td>★ Use a variety of planning strategies</td>
</tr>
<tr>
<td>Identify and Use Parts of Speech:</td>
<td>★ Organize to convey a central idea</td>
</tr>
<tr>
<td>★ Adjectives</td>
<td>★ Use a writer’s notebook</td>
</tr>
<tr>
<td>★ Adverbs</td>
<td>★ Establish and review writing goals</td>
</tr>
<tr>
<td>★ Nouns</td>
<td><strong>Use Elements of Author’s Craft:</strong></td>
</tr>
<tr>
<td>★ Prepositions</td>
<td>★ Dialogue</td>
</tr>
<tr>
<td>★ Pronouns</td>
<td>★ Sentence variety</td>
</tr>
<tr>
<td>★ Verbs</td>
<td>★ Specific vocabulary and information</td>
</tr>
<tr>
<td>Use Elements of Author’s Craft:</td>
<td>★ Word choice</td>
</tr>
<tr>
<td>★ Dialogue</td>
<td>★ Plan:</td>
</tr>
<tr>
<td>★ Sentence variety</td>
<td>★ Write a clear topic sentence</td>
</tr>
<tr>
<td>★ Specific vocabulary and information</td>
<td>★ Write multiple paragraphs on the same topic</td>
</tr>
<tr>
<td>★ Word choice</td>
<td>★ Use transition words</td>
</tr>
</tbody>
</table>

| **Revise:** | **Edit:** | **Locate, Evaluate, and Select Appropriate Resources:** |
| ★ Revise for clarity of content | ★ Use correct punctuation (commas in series, dates, addresses; apostrophes in possessives and contractions; end punctuation; dialogue) | Construct questions about a topic |
| ★ Use available resources | ★ Eliminate double negatives | Use a variety of information sources (online, print, media) |
| ★ Use a rubric to self-assess writing | ★ Spell correctly (frequently-used words, homophones, simple abbreviations) | Select information related to an identified topic |
| **Use Technology to Plan, Draft, Revise, Edit, and Publish Writing** | ★ Use a rubric to self-assess writing | Evaluate and synthesize information from two or more sources |
| **Locate, Evaluate, and Select Appropriate Resources:** | ★ Use appropriate resources to edit | Use available technology |
| ★ Credit sources | ★ Write legibly in manuscript and cursive forms | **Sources:** |
| ★ Understand the difference between plagiarism and using own words | **Use Technology to Plan, Draft, Revise, Edit, and Publish Writing** | **Use Technology to Plan, Draft, Revise, Edit, and Publish Writing** |
| **Locate, Evaluate, and Select Appropriate Resources:** | **Plan:** | Construct questions about a topic |
| ★ Credit sources | ★ Identify intended audience | Use a variety of information sources (online, print, media) |
| ★ Understand the difference between plagiarism and using own words | ★ Focus on one aspect of a topic | Select information related to an identified topic |
| **Research** | ★ Use a variety of planning strategies | Evaluate and synthesize information from two or more sources |
| **Locate, Evaluate, and Select Appropriate Resources:** | ★ Organize to convey a central idea | Use available technology |
| ★ Credit sources | ★ Use a writer’s notebook | **Sources:** |
| ★ Understand the difference between plagiarism and using own words | ★ Establish and review writing goals | **Use Technology to Plan, Draft, Revise, Edit, and Publish Writing** |
| **Locate, Evaluate, and Select Appropriate Resources:** | ★ Dialogue | Construct questions about a topic |
| ★ Credit sources | ★ Sentence variety | Use a variety of information sources (online, print, media) |
| ★ Understand the difference between plagiarism and using own words | ★ Specific vocabulary and information | Select information related to an identified topic |
| **Use Technology to Plan, Draft, Revise, Edit, and Publish Writing** | ★ Word choice | Evaluate and synthesize information from two or more sources |
| **Locate, Evaluate, and Select Appropriate Resources:** | ★ Plan: | Use available technology |
| ★ Credit sources | ★ Write a clear topic sentence | **Sources:** |
| ★ Understand the difference between plagiarism and using own words | ★ Write multiple paragraphs on the same topic | **Use Technology to Plan, Draft, Revise, Edit, and Publish Writing** |
| **Plan:** | ★ Use transition words | Construct questions about a topic |
| ★ Identify intended audience | ★ Include supporting details that elaborate the main idea | Use a variety of information sources (online, print, media) |
| ★ Focus on one aspect of a topic | **Draft:** | Select information related to an identified topic |
| ★ Use a variety of planning strategies | ★ Write a clear topic sentence | Evaluate and synthesize information from two or more sources |
| ★ Organize to convey a central idea | ★ Write multiple paragraphs on the same topic | Use available technology |
| ★ Use a writer’s notebook | ★ Use transition words | **Sources:** |
| ★ Establish and review writing goals | ★ Include supporting details that elaborate the main idea | ★ Credit sources |
| **Revise:** | **Edit:** | ★ Understand the difference between plagiarism and using own words |
| ★ Revise for clarity of content | ★ Use correct punctuation (commas in series, dates, addresses; apostrophes in possessives and contractions; end punctuation; dialogue) | **Locate, Evaluate, and Select Appropriate Resources:** |
| ★ Use available resources | ★ Eliminate double negatives | Construct questions about a topic |
| ★ Use a rubric to self-assess writing | ★ Spell correctly (frequently-used words, homophones, simple abbreviations) | Use a variety of information sources (online, print, media) |
| **Use Technology to Plan, Draft, Revise, Edit, and Publish Writing** | ★ Use a rubric to self-assess writing | Select information related to an identified topic |
| **Locate, Evaluate, and Select Appropriate Resources:** | ★ Use appropriate resources to edit | Evaluate and synthesize information from two or more sources |
| ★ Credit sources | ★ Write legibly in manuscript and cursive forms | Use available technology |
| ★ Understand the difference between plagiarism and using own words | **Use Technology to Plan, Draft, Revise, Edit, and Publish Writing** | **Sources:** |

*Italicized items provide connections and/or extensions.*