

GRADE 4: EXPLANATION OF ACADEMIC CODE

4 Exceeds Standards	3 Meets Standards	2 Works Toward Standards	1 Performs Below Standards
<ul style="list-style-type: none"> Consistently expands upon standards for grade level 	<ul style="list-style-type: none"> Consistently achieves standards for grade level 	<ul style="list-style-type: none"> Meets some standards for grade level 	<ul style="list-style-type: none"> Seldom meets standards for grade level
<ul style="list-style-type: none"> Applies higher level thinking to expand knowledge, skills, vocabulary and strategies 	<ul style="list-style-type: none"> Understands and applies knowledge, skills, vocabulary and strategies 	<ul style="list-style-type: none"> Sometimes understands and applies knowledge, skills, vocabulary and strategies 	<ul style="list-style-type: none"> Seldom understands and applies knowledge, skills, vocabulary and strategies
<ul style="list-style-type: none"> Applies problem solving skills to new situations 	<ul style="list-style-type: none"> Demonstrates problem solving skills 	<ul style="list-style-type: none"> Sometimes demonstrates problem solving skills 	<ul style="list-style-type: none"> Seldom demonstrates problem solving skills

GRADE 4: EXPLANATION OF STANDARDS

MATHEMATICS – *The student will...*

Problem Solving and Reasoning

- use appropriate and efficient strategies to solve problems
- explain and justify solution strategy leading to a correct answer
- use representations to organize, record, and communicate mathematical ideas

Number Sense: Whole Numbers

- understand and use numbers through millions, recognizing the relationship between the values of each digit/number
- identify, read, write, compare, and round whole numbers through millions

Number Sense: Fractions/Decimals

- identify, model, compare rational numbers (fractions and mixed numbers)
- represent equivalent fractions, compare fractions, and relate fractions to decimals
- read, write, identify, represent and round decimals through thousandths

Computation and Estimation

- estimate and solve addition, subtraction, multiplication, and division problems
- add and subtract fractions (e.g., $\frac{3}{4} + \frac{1}{8}$) and decimals through thousandths
- use addition and subtraction to solve problems with fractions and decimals

Measurement

- estimate and measure length, weight, and volume in customary and metric units
- identify equivalent measurements between units within customary and between units within metric (length, weight, volume)
- estimate the conversion of customary units to metric units (ballpark comparisons for length, weight, and volume)
- identify, describe, and differentiate situations representing the use of perimeter and area

Geometry

- analyze and compares properties (e.g. sides) of 2-D (circle, triangle) and (e.g. faces) of 3-D geometric figures (e.g. cylinder, cone)
- identify, describe relationships and draw representations of points, lines, line segments, rays, intersections, parallelism, and perpendicularity
- identify and describe congruent shapes including geometric transformations of reflection, rotation, and translation

Statistics and Probability

- predict likelihood of outcomes of a simple event and determines probability of a given simple event
- read, construct, interpret, draw conclusions, and make predictions using display of data

Patterns, Functions & Algebra

- recognize, create, and extend numerical and geometric patterns to describe relationships
- recognize and demonstrate understanding of the meaning of equality (e.g., $15 + 35 = 32 + 18$)

ORAL LANGUAGE – *The student will...*

- listen attentively, ask and respond to questions, and explain what has been learned
- make and listen to oral presentations and reports

READING – *The student will...*

Vocabulary/Word Analysis

- use knowledge of word roots, prefixes, and suffixes to read and understand unfamiliar texts.
- use and apply vocabulary, context clues (e.g. grammar, surrounding text), and word reference materials to read unfamiliar words and determine their meanings
- understand and use homonyms, synonyms, antonyms, and words with multiple meanings

Comprehension

- use various strategies such as predicting, questioning, comparing, contrasting, summarizing, and evaluating to make sense of written material
- use knowledge, skills, and strategies to independently read and demonstrate understanding of written material

Fluency

- read aloud at appropriate rate with expression and accuracy
- use expression and phrasing to convey meaning when reading aloud

WRITING – *The student will...*

Composition

- develop a plan and organize information for writing
- compose well-developed paragraphs that focus on a main idea

Written Expression

- use details and sentence variation to elaborate on the main idea in paragraphs
- write for a variety of purposes and audiences
- revise the language, organization, and content

Usage and Mechanics of Writing

- edit for correct grammar and sentence structure (usage), spelling, capitalization, and punctuation (mechanics)

SCIENCE – *The student will...*

Concepts, Facts, Principles and Vocabulary

- investigate and understand characteristics and interaction of moving objects, characteristics of electricity (conductors, insulators, circuitry), basic plant anatomy and life processes, ecosystem interactions, weather conditions and phenomena, and important Virginia natural resources including watersheds

Recording and Interpreting Scientific Data

- hypotheses are formulated based on cause-and-effect relationships, distinctions are made among observations, conclusions, inferences, and predictions, variables that must be held constant in an experimental situation are defined

SOCIAL STUDIES – *The student will...*

History

- demonstrate an understanding of the people and events in the history of Virginia and the role Virginia played in the history of the United States

Geography

- locate and describe the five geographic regions of Virginia
- explain how people adapted to their environment
- use map, chart, and graph skills to gather and classify (organize) information

Economics

- identify major economic activities throughout Virginia
- explain how people throughout Virginia's history used available resources to adapt to their environment
- explain how Virginia's economy has changed over time

Civics

- explain how Virginia was a leader in the development of democracy in the United States
- identify key Virginians and the role they played in the development of the United States
- describe the basic structure of Virginia's government