



Grade 10 English Language Arts (ELA) Course Objectives Curriculum

Framework: Common Core Standards (CCS) **Instructional Materials:** HMH Collections

Program Overview

This detailed guide provides parents and newly admitted students with a comprehensive breakdown of the specific reading and writing skills developed at **Grade 10**. Aligned with the Common Core Standards, our curriculum ensures that students progressively build mastery from early reading foundations to advanced literary analysis, rhetoric, and scholarly writing.

Reading Objectives (Sophomore English):

- Explore global viewpoints and cultural perspectives through world literature using HMH Collections.
- Analyze how an author unfolds an analysis or series of ideas or events, including the sequence in which the points are made and connections drawn.
- Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient.
- Spot logical fallacies and persuasive techniques used in foundational speeches, essays, and political texts.

Writing Objectives:

Writing Focus: Story writing (narrative), sharing opinions (opinion/argumentative), and explaining facts (informative/explanatory)

- Execute targeted timed essay writing under strict structural and time constraints.
- Synthesize data and insights from multiple texts into a cohesive academic product.
- Draft comprehensive research papers and persuasive arguments addressing complex societal or literary dilemmas.

New Generation International Schools
Grade 10 Mathematics – Admission Exam Study Guide

Structure of the Exam:

- **Part I (Digital Online Exam):** 25 MCQs, Duration: 30 minutes.
- **Part II (Paper-based Exam):** 10 FRQs, Duration: 30 minutes.

This study guide outlines the core mathematical topics, descriptions, and examples for the Grade 10 admission assessment.

1. Verbal and Algebraic Expressions

- **Description:** Translating verbal statements into mathematical expressions and evaluating terms with variables.
- **Example:** Writing "three more than twice a number" as $2x + 3$.

2. Solving Systems of Equations (Algebraically / Graphically)

- **Description:** Finding common solutions for linear systems using substitution, elimination, or graphing methods.
- **Example:** Solving $y = x + 1$ and $y = -x + 3$ to find the intersection point (1, 2).

3. Rules of Exponents

- **Description:** Applying product, quotient, power, and negative exponent rules to simplify algebraic expressions.
- **Example:** Simplifying $x^2 \cdot x^3 = x^5$.

4. Operations with Polynomials

- **Description:** Adding, subtracting, and multiplying polynomials by combining like terms.
- **Example:** Expanding $(x + 2)(x + 3) = x^2 + 5x + 6$.

5. Factorization of Trinomials

- **Description:** Decomposing quadratic trinomials into products of binomial factors.
- **Example:** Factoring $x^2 + 5x + 6$ into $(x + 2)(x + 3)$.

6. Slope

- **Description:** Calculating the steepness and rate of change of a line.
- **Example:** Finding the slope between (1, 2) and (3, 6) as $m = 2$.

7. Equation of a Straight Line (Slope-Intercept & Standard Form)

- **Description:** Writing linear equations in slope-intercept ($y = mx + b$) or standard form ($Ax + By = C$).
- **Example:** Writing a line with slope 3 and y-intercept -1 as $y = 3x - 1$.

8. Parallel & Perpendicular Lines

- **Description:** Determining line relationships using equal slopes for parallel lines and negative reciprocal slopes for perpendicular lines.
- **Example:** Identifying that a line perpendicular to $y = 2x + 3$ has a slope of $-\frac{1}{2}$.

9. Graphing Linear Functions

- **Description:** Sketching linear equations on a Cartesian coordinate plane.

- **Example:** Graphing $y = -x + 2$ using its y -intercept and slope.

10. Triangles (Sum of Angles)

- **Description:** Applying the rule that the sum of interior angles in any triangle is

180°.

- **Example:** Finding the missing angle in a triangle with known angles 50° and 60°

as 70°.

11. Areas of Shapes (Triangle, Square, Rectangle, Circle)

- **Description:** Calculating surface areas for standard two-dimensional geometric figures.
- **Example:** Finding the area of a circle with radius $r = 4$ cm as $A = 16\pi$ cm².

12. Volumes of Solids (Cube, Rectangular Box, Cylinder)

- **Description:** Calculating three-dimensional capacity for cubes, rectangular prisms, and cylinders.
- **Example:** Finding the volume of a rectangular box with length 5, width 3, and height 2 as 30 cubic units.

13. Pythagorean Theorem

- **Description:** Relating the lengths of the sides of a right-angled triangle using $a^2 + b^2 = c^2$.
- **Example:** Finding the hypotenuse of a right triangle with legs 3 and 4 as $c = 5$.