

Zahrat Al-Sahra'a International School

Grade 9 to 10 Entrance Exam

Required Lessons

Academic Year 2019-2020

Math

Algebra

L2-1: Using Transformations to Graph Quadratic Functions
L2-2: Properties of Quadratic Functions in Standard Form
L2-3: Solving Quadratic Equations by Graphing and Factoring
L2-4: Completing the Square
L2-6: The Quadratic Formula
L2-7: Solving Quadratic Inequalities
L3-1: Polynomials
L3-2: Multiplying Polynomials
L3-3: Dividing Polynomials
L3-4: Factoring Polynomials
L3-5: Finding Real Roots of Polynomial Equations
L3-6: Fundamental Theorem of Algebra
L3-7: Investigating Graphs of Polynomial Functions
L3-8: Transforming Polynomial Functions
L5-1: Variation Functions
L5-2: Multiplying and Dividing Rational Expressions
L5-3: Adding and Subtracting Rational Expressions
L5-4: Rational Functions
L5-5: Solving Rational Equations and Inequalities
L5-6: Radical Expressions and Rational Exponents
L5-7: Radical Functions
L5-8: Solving Radical Equations and Inequalities

Geometry

L5-1: Midsegments of Triangles
L5-2: Perpendicular and Angle Bisectors
L5-3: Bisectors in Triangles
L5-4: Medians and Altitudes
L5-6: Inequalities in One Triangle
L5-7: Inequalities in Two Triangles
L6-1: The Polygon-Angle Sum Theorems
L6-2: Properties of Parallelograms
L6-4: Properties of Rhombuses, Rectangles, & Squares
L6-5: Conditions of Rhombuses, Rectangles, & Squares
L6-6: Trapezoids and Kites
L6-7: Polygons in the Coordinate Plane
L7-1: Ratios and Proportions
L7-2: Similar Polygons
L7-3: Proving Triangles Similar
L7-4: Similarity in Right Triangles
L10-1: Areas of Parallelograms and Triangles
L10-2: Areas of Trapezoids, Rhombuses, and Kites
L10-3: Areas of Regular Polygons
L10-4: Perimeters and Areas of Similar Figures

Arabic

- قراءة النَّصِّ .
- الإجابة على الأسئلة حول النَّصِّ + مفردات وأضداد من خلال النَّصِّ .
- البديل .
- العدد .
- العطف .
- المفعول به .
- التّعنت .
- إعراب الجمل .
- التّواصل الكتابيّ .

English

Literary Focus Skills

1. Figures of speech: Hyperbole, Pun, Metaphor,
2. Paradox, Oxymoron, synecdoche, amplification, & irony,
3. symbolism, onomatopoeia, alliteration, consonance, assonance, simile,
4. Anaphora, & imagery

5. Identifying round and flat characters
6. Understanding suspense and foreshadowing
7. Understanding unreliable narrators
8. Understanding style and imagery
9. Making generalization
10. Understanding epic heroes and conflict
11. Understanding symbols and allegory
12. Understanding myth and archetypes
13. Identifying figures of speech
14. Understanding the sound of poetry

15. Identifying types of irony

Grammar

1. Prepositional Phrase/ Adjective Phrase/ Adverb Phrase

2. Participial Phrase/ Gerund Phrase
3. Infinitive Phrase/ Appositive Phrase
4. Adjective Clause/ Relative Pronoun & Relative Adverbs
5. Adverb Clause/ Noun Clause
6. Agreement: Subject- and- Verb Agreement
7. Pronoun-and-Antecedent Agreement
8. Principal Parts/ Regular and Irregular Verbs/ Tense/ Voice
9. Correct Usage of Pronouns
10. Dangling and Misplaced Modifiers
11. Commas, Semicolons, Colons, hyphens, Quotation Marks, italics, dashes, capitalizations, plurals, numbers, using the right word

Sciences

Physics

Lesson Title

Motion in one dimension

Motion in two dimensions

Forces and Laws of motion

Work and energy

Chemistry

Lesson Title

Atomic structure

Arrangement of electrons in an atom

Periodic table

Chemical bonding

Chemical formulas and chemical compounds

Biology

Lesson Title

Human Biology

Cells

Animals

Plants

Classification and Diversity