MATHEMATICS 5

Course Description

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Series Description

The objective of the EduSystem **Mathematics K-6** series is to help students develop skills and mathematical concepts in accordance with the standards set forth by the Department of Education of Puerto Rico and the National Council of Teachers of Mathematics. The purpose of the series is to create awareness of why studying mathematical processes is important and how it is necessary for solving problems that relate to real-life situations.

Through its content, strategies, and techniques, the EduSystem **Mathematics K-6** series instills a deep understanding of the concepts, skills, and techniques necessary for the subsequent study of higher mathematics and applications. The way in which the topics, examples, and recommended applications are presented allows students to visualize, understand, and value the usefulness of mathematics in everyday life.

The EduSystem **Mathematics K-6** series covers the following areas and topics: number sense, counting, and cardinal numbers; operations and algebraic thought; numbers and operations in base ten; numbers and operations with fractions and ratios; proportional relationships; numeral systems; expressions and equations; measurement and data; statistics and probability, and geometry.

In each lesson, the objectives have been carefully aligned by taking into consideration the concepts and skills students need to establish connections between the different topics. The instructional focus is based upon conceptual understanding, skills development, and mathematical problems/solutions. It also focuses on the development of critical thinking skills which is the integral means of foundation for the students.

The EduSystem **Mathematics K-6** series encourages the direct application of what students learn and how they visualize the importance of mathematics as a universal discipline relating to society, community, organizations, and institutions. Furthermore, the incorporation of situations and real-life problems in each of the topics aims to awaken an interest in the study of mathematics for students.

Concept Development

The EduSystem **Mathematics K-6** series is directed toward developing a mastery of:

- Mathematical reasoning skills and their applications.
- Application of problem-solving processes and strategies.
- Use of technology as tools to access, analyze, and apply information in the solution of problems in their immediate surroundings.

General Objectives

The objectives of this Series are to:

- Help students develop an interest and appreciation for mathematics.
- Develop mathematical capability within students through experiences that stimulate their curiosity and focus it toward investigation, problem solving, and communication.
- Promote that the students visualize mathematics as an integral whole and not as a group of isolated topics.
- Develop the problem-solving processes in students, as a cornerstone of encouragement, furthering the development of mathematical capacity.
- Stimulate within students the need of using language and academic vocabulary to communicate mathematical ideas.
- Develop mathematical reasoning and critical thinking skills that allow students to visualize mathematics as a relevant discipline in their lives.
- Emphasize the concepts of numbers, operations, and calculations so that they are correctly defined, conceived, and adequately applied.
- Promote the learning of concepts in geometry and measurement through hands-on experiences that incorporate experimentation and discovery of mathematical relationships using solid objects or manipulatives.

Course Structure

The Mathematics 5 course is composed of twelve units. Each unit is composed of lessons. Each lesson contains a presentation divided into sections that develop their individual topics. Each lesson also contains a descriptive log, activities, worksheets, and handouts related to the content and, as in most cases, website links and resources. The practice and review documents generally include word problems, as well as a section devoted solely to solving problems.

We invite you to get to know the presentation sections and the documents that are generally found in the course lessons.

The units are made up of the following:

Lessons

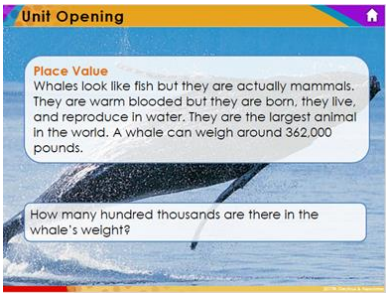
Each unit is composed of several lessons which are divided by topics. Furthermore, each lesson is comprised of the following:

Presentation

Each presentation is composed of the following sections:

Unit Opening

Each unit begins with an image which starts off the first lesson of the unit. This section presents the unit's theme as well as several questions in which the image or theme are explored.

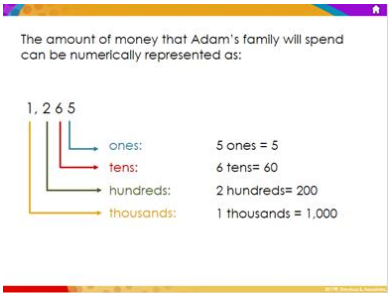


Introduction

Presentation of a situation and questions to be explored.

Topics to Be Developed

Sections of concept development, where mathematical ideas and concepts are explained. On some occasions, skills are developed from the situation presented in the introduction and other examples are offered.



Practice

Lesson closure in which students apply what they learned through some exercise.

Think About It

A reasoning question is presented and identified with a lightbulb. The goal is to develop students' reasoning and analysis capacities.

Handouts and Worksheets

Think and Practice

It presents exercises and problems after every concept development section. It has activities that help practice, enrich, end reinforce the concepts learned throughout the lesson.

Homework

Practice for each concept building section. Students are provided with a reasonable number of exercises so that they can master the skills and concepts studied in the lesson.

Lesson 0

This lesson is composed of a series of unit documents and of formative and cumulative evaluation that can be used before, during, or after the study of each unit.

What I Know!

A pretest of the concepts and skills to be discussed within the unit.

Connection

Activity that initiates the unit. It relates Mathematics with other fields of study.

Problem Solving

It explains strategies and procedures for the development of problem-solving skills.

Unit review

Practice exercises that allow students to confirm what they have learned in the unit.

Reviewing the Units

Practice exercises that allow the student to confirm what they have learned in previous units.

What I Learned

The skills and concepts learned in the unit are measured. It allows students to do a self-evaluation. The teacher may use it as a test.

Knowing Technology

It presents technology in its different manifestations, including the computer as well as all the gadgets present in our daily lives. It can be found in some units.

Think

It presents activities and includes mathematical reasoning exercises. It can be found in some units.

Unit Breakdown

Below is an itemization of the division of each unit in lessons, including the name of each lesson with its corresponding objectives, skills, and keywords

Unit 1. Numbers

At the end of this unit, the student will achieve the objectives found in the following lessons.

Unit Concepts

- Arabic numeral system
- billions
- digit, hundred
- decimal system
- comparing decimals
- numerical system
- units
- tens
- Roman numerals
- hundred
- million
- thousand
- even number
- whole numbers
- decimal number system
- ordering whole numbers
- equal to
- greater than
- less than
- odd number
- place value
- tenths
- thousandths

Lesson 0: Numbers

Code: C319G05U01L00

Unit Documents

- Unit Documents

Lesson 1: Numbers to the Billions

Code: C319G05U01L01

Objectives

- Recognize and write the numbers up to thousands of millions.

Keywords

- billions, decimal system, digit, hundred, numerical system, units, tens, hundred thousand million, ten thousand million

Lesson 2: **Comparing and Organizing Numbers to the Billions**

Code: C319G05U01L02

Objectives

- Compare and organize numbers to the billions.

Keywords

- billions, comparing whole numbers, decimal number system, ordering whole numbers, equal to, less than, greater than

Lesson 3: **Decimal Numbers to the Thousandths**

Code: C319G05U01L03

Objectives

- Recognize decimal numbers to the thousandths.

Keywords

- decimal number, decimal point, hundredths, place value, tenths, thousandths

Lesson 4: **Comparing and Organizing Decimals**

Code: C319G05U01L04

Objectives

- Compare and organize decimal numbers.

Keywords

- comparing decimals, decimal number, organizing decimals, place value

Lesson 5: **Even and Odd Numbers**

Code: C319G05U01L05

Objectives

- Recognize even and odd numbers.

Keywords

- even number, odd number

Lesson 6: **Roman Numerals**

Code: C319G05U01L06

Objectives

- Read and write Roman numerals.

Keywords

- Arabic numeral system, numerical system, Roman numerals

Unit 2. Addition and Subtraction

At the end of this unit, the student will achieve the objectives found in the following lessons.

Unit Concepts

- add
- addend
- approximate
- minuend
- subtrahend
- rounding
- subtracting
- total

Lesson 0: Addition and Subtraction

Code: C319G05U02L00

Unit Documents

- Unit Documents

Lesson 1: Rounding Whole Numbers

Code: C319G05U02L01

Objectives

- Round whole numbers.

Keywords

- rounding, rounding whole numbers, whole numbers

Lesson 2: Rounding Decimal Numbers

Code: C319G05U02L02

Objectives

- Round decimal numbers.

Keywords

- decimal, hundredth, rounding, tenth, thousandth

Lesson 3: Adding and Subtracting Whole Numbers

Code: C319G05U02L03

Objectives

- Add and subtract whole numbers.

Keywords

- add, addend, difference, minuend, subtrahend, total,

Lesson 4: Estimating Totals and Differences of Whole Numbers

Code: C319G05U02L04

Objectives

- Estimate the totals and differences of whole numbers.

Keywords

- approximate, estimating, place value, rounding

Lesson 5: Adding and Subtracting Decimals to the Thousandths

Code: C319G05U02L05

Objectives

- Add and subtract decimals to the thousandths.

Keywords

- adding, decimal, decimal point, place value, subtracting

Lesson 6: Estimating Totals and Differences of Decimal Numbers

Code: C319G05U02L06

Objectives

- Estimate totals and differences of decimal numbers.

Keywords

- adding, decimals, estimating, rounding, subtracting

Unit 3. Multiplication

At the end of this unit, the student will achieve the objectives found in the following lessons.

Unit Concepts

- Associative Property
- Base
- Commutative Property
- composite number
- Distributive Property
- Estimate
- Exponent
- exponential expression
- factor
- multiplication
- Multiplicative
- Multiplicative Identity
- prime factorization
- prime number
- Property of Zero
- standard form

Lesson 0: Multiplication

Code: C319G05U03L00

Unit Documents

- Unit Documents

Lesson 1: Properties of Multiplication

Code: C319G05U03L01

Objectives

- Use the properties of multiplication.

Keywords

- Associative Property, Commutative Property, Distributive Property, Multiplicative Identity Property, Multiplicative Property of Zero

Lesson 2: Estimating Products

Code: C319G05U03L02

Objectives

- Estimate the product of a multiplication.

Keywords

- estimate

Lesson 3: Multiplying Two-Digit Factors

Code: C319G05U03L03

Objectives

- Multiply two-digit factors.

Keywords

- multiplication, two-digit factor

Lesson 4: Multiplying by 10, 100, and 1,000

Code: C319G05U03L04

Objectives

- Multiply by 10, 100, and 1,000.

Keywords

- 10, 100, 1,000, multiply

Lesson 5: Multiplying Three-Digit Factors

Code: C319G05U03L05

Objectives

- Multiplying three-digit factors

Keywords

- multiply, three-digit

Lesson 6: Prime and Composite Numbers

Code: C319G05U03L06

Objectives

- Classify numbers as prime and composite.

Keywords

- prime number, composite number

Lesson 7: Prime Factorization

Code: C319G05U03L07

Objectives

- Define prime numbers, composite numbers, factors and prime factorization.
- Decompose composite numbers into prime factors.
- Use the factor tree and consecutive division methods to find the prime factors of composite numbers.
- Factor composite numbers

Keywords

- composite number, factor, prime factorization, prime number

Lesson 8: Write an Expression in Exponential Form

Code: C319G05U03L08

Objectives

- Identify the correct base number in order to write an exponential expression.
- Write a standard expression in exponential form.

Keywords

- base, exponent, exponential expression, standard form

Lesson 9: Exponential Expression in Standard Form

Code: C319G05U03L09

Objectives

- Know the terms base and exponent as part of the mathematical vocabulary.
- Recognize that the base number is multiplied by itself the number of times indicated by the exponent.
- Calculate and write the exponential expressions in standard form.

Keywords

- exponent, exponential expression

Unit 4. Multiplication and Division

At the end of this unit, the student will achieve the objectives found in the following lessons.

Unit Concepts

- divide
- dividend
- division
- divisor
- fact family
- inverse operation
- multiples of 10
- multiplication
- quotient
- remainder

Lesson 0: Multiplication and Division

Code: C319G05U04L00

Unit Documents

- Unit Documents

Lesson 1: Fact Families

Code: C319G05U04L01

Objectives

- Form fact families.

Keywords

- fact family, inverse operation

Lesson 2: Dividing by Multiples of 10

Code: C319G05U04L02

Objectives

- Divide by multiples of 10.

Keywords

- divide, division, multiples of 10

Lesson 3: One-Digit Divisors

Code: C319G05U04L03

Objectives

- Divide by one-digit divisors.

Keywords

- dividend, divisor, quotient, remainder

Lesson 4: Dividing Four and Five Digit Numbers

Code: C319G05U4L04

Objectives

- Divide with four or five-digit numbers in the dividend.

Keywords

- dividend, divisor, quotient, remainder

Lesson 5: Two-Digit Divisors

Code: C319G05U04L05

Objectves

- Divide with two-digit divisors

Keywords

- dividend, divisor, quotient, remainder

Lesson 6: Verifying a Division Through Multiplication

Code: C319G05U04L06

Objectives

- Verify a division through multiplication.

Keywords

- dividend, divisor, multiplication, quotient, remainder

Lesson 7: Dividing With Zeroes in the Quotient

Code: C319G05U04L07

Objectives

- Divide with zeros in the quotient.

Keywords

- dividend, division, divisor, multiplication quotient, remainder

Lesson 8: Dividing Decimal Numbers by Whole Numbers

Code: C319G05U04L08

Objectives

- Divide a decimal number by a whole number.

Keywords

- dividend, division, divisor, quotient, remainder

Lesson 9: Estimating Quotients

Code: C319G05U04L09

Objectives

- Estimate quotients.

Keywords

- dividend, division, divisor, estimate, multiplication quotient, remainder

Unit 5. More Multiplication

At the end of this unit, the student will achieve the objectives found in the following lessons.

Unit Concepts

- addition
- decimal numbers
- division
- factors
- multiplication
- order of operations
- products
- subtraction
- whole numbers
- zeros

Lesson 0: More Multiplication

Code: C319G05U05L00

Unit Documents

- Unit Documents

Lesson 1: Multiplying Decimal Numbers by Whole Numbers

Code: C319G05U05L01

Objectives

- Multiply a decimal number by a whole number.

Keywords

- decimal numbers, factors, multiplication, whole numbers

Lesson 2: Multiplying Two Decimal Numbers

Code: C319G05U05L02

Objectives

- Multiply two decimal numbers.

Keywords

- decimal numbers, products

Lesson 3: Zeroes in the Products of Decimal Numbers

Code: C319G05U05L03

Objectives

- Add zeros to the products of decimals.

Keywords

- factors, multiplication, product, zeros

Lesson 4: Order of Operations

Code: C319G05U05L04

Objectives

- Learn the order of operations when there are expressions with addition, subtraction, multiplication and division, parentheses, brackets, and powers.
- Use the order of operations to solve exercises containing operations such as addition, subtraction, mu

Keywords

- addition, division, multiplication, order of operations, subtraction

Unit 6. Fractions

At the end of this unit, the student will achieve the objectives found in the following lessons.

Unit Concepts

- common factor
- comparing
- equivalence
- factors
- fractions
- greatest common factor (GCF)
- improper fraction
- least common multiple
- like fractions
- mixed numbers
- multiple
- ordering
- proper fraction
- simplification
- unlike fractions

Lesson 0: Fractions

Code: C319G05U06L00

Unit Documents

- Unit Documents

Lesson 1: Equivalent Fractions

Code: C319G05U06L01

Objectives

- Recognize and find equivalent fractions.

Keywords

- equivalency, fractions

Lesson 2: Greatest Common Factor

Code: C319G05U06L02

Objectives

- To find the greatest common factor of two or more numbers.

Keywords

- equivalency, factors, fractions, greatest common factor (GCF)

Lesson 3: Simplifying Fractions

Code: C319G05U06L03

Objectives

- Simplify fractions.

Keywords

- common factor, simplification

Lesson 4: Least Common Multiple

Code: C319G05U06L04

Objectives

- Find the least common multiple of two or more numbers.

Keywords

- least common multiple, multiple

Lesson 5: Comparing and Placing Fractions in Order

Code: C319G05U06L05

Objectives

- Compare fractions.
- Place fractions in order.

Keywords

- comparing, least common multiple, like fractions, ordering, unlike fractions

Lesson 6: Converting Mixed Numbers to Improper Fractions

Code: C319G05U06L06

Objectives

- Convert a mixed number into an improper fraction or whole number.

Keywords

- improper fraction, mixed numbers, proper fraction

Lesson 7: Converting Improper Fractions to Mixed Numbers

Code: C319G05U06L07

Objectives

- Change an improper fraction to a mixed number.

Keywords

- equivalence, fractions

Unit 7. Operations with Fractions

At the end of this unit, the student will achieve the objectives found in the following lessons.

Unit Concepts

- denominator
- improper fractions
- like fractions
- minimum expression
- mixed number division
- mixed numbers
- reciprocal
- simplest form
- simplify
- subtract
- unlike fractions

Lesson 0: Operations with Fractions

Code: C319G05U07L00

Unit Documents

- Unit Documents

Lesson 1: Adding Like and Unlike Fractions

Code: C319G05U07L01

Objectives

- Add like and unlike fractions.

Keywords

- add, denominator, like fractions, unlike fractions

Lesson 2: Subtracting Like and Unlike Fractions

Code: C319G05U07L02

Objectives

- Subtract like and unlike fractions.

Keywords

- denominator, like fractions, subtract, unlike fractions

Lesson 3: Adding and Subtracting Mixed Numbers

Code: C319G05U07L03

Objectives

- Add and subtract mixed numbers.

Keywords

- add, mixed numbers, subtract

Lesson 4: **Multiplying and Dividing Fractions**

Code: C319G05U07L04

Objectives

- Multiply and divide fractions.

Keywords

- add, mixed numbers, subtract

Lesson 5: **Multiplying Mixed Numbers**

Code: C319G05U07L05

Objectives

- Change mixed numbers to improper fractions and vice versa.
- Multiply mixed numbers converted to improper fractions.
- Recognize that the results in fractions have to be simplified.
- Simplify the results of the multiplication of mixed numbers.

Keywords

- area, improper fractions, mixed numbers, simplest form, simplify

Lesson 6: **Dividing Mixed Numbers**

Code: C319G05U07L06

Objectives

- Divide mixed numbers.
- Change mixed numbers to improper fractions.
- Change the operation of division to multiplication and find the reciprocal or multiplicative inverse of the second fraction.
- Use the cross cancelling process to help in the multipli

Keywords

- mixed number division, improper fractions, minimum expression, mixed numbers, reciprocal, simplify

Lesson 7: **Writing Fractions as Decimals**

Code: C319G05U7L07

Objectives

- Recognize decimal fractions.
- Represent decimal fractions as decimal numbers.
- Move the decimal point of the numerator to the left according to the number of zeros that the denominator has.
- Recognize that the decimal numbers consist of a whole part

Keywords

- improper fractions, minimum expression, mixed numbers, reciprocal, simplify

Unit 8. Numerical and Algebraic Expressions

At the end of this unit, the student will achieve the objectives found in the following lessons.

Unit Concepts

- algebraic expressions
- distributive property
- expressions
- metric system
- metric system prefixes
- metric system units
- unknown value
- variables

Lesson 0: Numerical and Algebraic Expressions

Code: C319G05U08L00

Unit Documents

- Unit Documents

Lesson 1: Numerical and Algebraic Expressions

Code: C319G05U08L01

Objectives

- Knows the meaning of the term's variable, numerical and algebraic expression.
- Recognizes that a variable in an algebraic expression takes the place of a numerical value (number).
- Reads algebraic and numerical expressions correctly.
- Identifies the

Keywords

- Metric system prefixes, metric system, metric system units

Lesson 2: Variables and Expressions

Code: C319G05U8L02

Objectives

- Use symbols to represent an unknown value.
- Write algebraic expressions.

Keywords

- expressions, algebraic expressions, unknown value, variables

Lesson 3: The distributive property

Code: C319G05U08L03

Objectives

- Know and identify the distributive property.
- Simplify expressions using the distributive property.
- Represents the distributive property in situations of daily life.

Keywords

- distributive property

Unit 9. Numerical and Algebraic Expressions

At the end of this unit, the student will achieve the objectives found in the following lessons.

Unit Concepts

- decimal numbers
- denominator
- equivalent ratios
- fraction
- numerator
- percentage
- proportion
- ratio
- ratios and proportions

Lesson 0: Ratios and Proportions

Code: C319G05U09L00

Unit Documents

- Unit Documents

Lesson 1: Ratios

Code: C319G05U09L01

Objectives

- Recognize ratios.
- Read and write ratios.

Keywords

- denominator, fraction, numerator, proportion, ratio, ratios and proportions

Lesson 2: Equivalent Ratios

Code: C319G05U09L02

Objectives

- Recognize equivalent ratios.
- Read and write proportions.

Keywords

- equivalent ratios, fraction, proportion, ratio

Lesson 3: Reading and Writing Percentages

Code: C319G05U09L03

Objectives

- Read and write percentages.

Keywords

- percentage, ratio

Lesson 4: **Percentage of a Given Number**

Code: C319G05U09L04

Objectives

- Find the percentage of a given number.

Keywords

- percentage, ratio

Lesson 5: **Converting from Percentages to Fractions**

Code: C319G05U09L05

Objectives

- Change percentages to fractions.

Keywords

- denominator, fraction, numerator, percentage

Lesson 6: **Converting from Decimal to Percentage**

Code: C319G05U09L06

Objectives

- Convert decimals to percentages.

Keywords

- decimal, decimal numbers, percentage

Lesson 7: **Changing Fractions to Percentages**

Code: C319G05U09L07

Objectives

- Convert fractions to percentages.

Keywords

- denominator, fraction, numerator, percentage

Unit 10. Measurement

At the end of this unit, the student will achieve the objectives found in the following lessons.

Unit Concepts

- capacity units
- converting units from the English system
- converting units of time
- elapsed time
- English system
- hour
- length units
- mass
- mass units
- metric system
- minutes
- prefixes in the metric system
- seconds
- temperature in Celsius degrees
- temperature in Fahrenheit degree
- temperature in the thermometer
- units of the English system
- units of the metric system

Lesson 0: Measurement

Code: C319G05U10L00

Unit Documents

- Unit Documents

Lesson 1: Prefixes in the Metric System

Code: C319G05U10L01

Objectives

- Recognize prefix values in the metric system.

Keywords

- metric system, prefixes in the metric system, units of the metric system

Lesson 2: Metric System: Units of Length, Mass, and Capacity

Code: C319G05U10L02

Objectives

- Use the units of length, mass and capacity of the metric system and its submultiples multiples.

Keywords

- capacity units, length units, mass units, units of the metric system

Lesson 3: Converting Units of Length, Mass, and Capacity from the Customary System

Code: C319G05U10L03

Objectives

- Convert units of length, capacity and mass from the English System.

Keywords

- converting units from the English system, English system, mass, units of the English system

Lesson 4: Temperature on a Thermometer

Code: C319G05U10L04

Objectives

- Measure the temperature of a thermometer in Celsius and Fahrenheit degrees.

Keywords

- temperature in Celsius degrees, temperature in Fahrenheit degrees, temperature in the thermometer

Lesson 5: Time Elapsed

Code: C319G05U10L05

Objectives

- Find the time elapsed.

Keywords

- elapsed time, hour, minutes, seconds

Lesson 6: Converting Units of Time

Code: C319G05U10L06

Objectives

- Convert units of time.

Keywords

- converting units of time, hour, minutes, seconds

Unit 11. Geometry

At the end of this unit, the student will achieve the objectives found in the following lessons.

Unit Concepts

- acute
- angles
- axis of symmetry
- center
- chord
- circle
- circumference
- congruent
- diameter
- edge
- equilateral
- face
- geometric shape
- Geometry
- isosceles
- line
- oblique
- obtuse
- parallel
- parallelogram
- perpendicular
- plane
- point
- polyhedron
- quadrilateral
- radius
- ray
- rectangle
- rhombus
- round shape
- scalene
- segment
- similar
- square
- straight
- symmetric
- trapezium
- trapezoid
- triangle
- vertex

Lesson 0: Geometry

Code: C319G05U11L00

Unit Documents

- Unit Documents

Lesson 1: Basic Geometric Concepts

Code: C319G05U11L01

Objectives

- Recognize basic geometric concepts.

Keywords

- geometry, point, segment, line, ray

Lesson 2: Perpendicular, Oblique and Parallel Lines

Code: C319G05U11L02

Objectives

- Recognize perpendicular, oblique, and parallel lines.

Keywords

- line, parallel, perpendicular, oblique

Lesson 3: Angle Classification

Code: C319G05U11L03

Objectives

- Classify angles according to their measurements.

Keywords

- acute, angles, line, obtuse, rectilinear, straight, vertex

Lesson 4: Triangle Classification

Code: C319G05U11L04

Objectives

- Classify triangles according to the measures of its sides and angles.

Keywords

- acute, congruence, scalene, equilateral, isosceles, obtuse, right, triangle

Lesson 5: Quadrilateral Classification

Code: C319G05U11L05

Objectives

- Recognize and classify quadrilaterals.

Keywords

- square, quadrilateral, parallelogram, rectangle, rhombus, trapezium, trapezoid

Lesson 6: Axis of Symmetry

Code: C319G05U11L06

Objectives

- Identify the axis of symmetry in a figure.

Keywords

- symmetry, symmetric, axis of symmetry

Lesson 7: Similar and Congruent Figures

Code: C319G05U11L07

Objectives

- Recognize similar and congruent shapes.

Keywords

- congruent, similar

Lesson 8: Geometric Shapes

Code: C319G05U11L08

Objectives

- Recognize geometric shapes.

Keywords

- edge, face, geometric shape, plane, polyhedron, round shape

Lesson 9: The Circle

Code: C319G05U11L09

Objectives

- Recognize the circle and its parts.

Keywords

- center, chord, circle, circumference, diameter, radius

Unit 12. Area and Perimeter

At the end of this unit, the student will achieve the objectives found in the following lessons.

Unit Concepts

- area
- area of a parallelogram
- cube
- parallelogram
- perimeter
- plane figures
- polyhedron
- prism
- rectangle
- rectangular prism
- surface area
- volume
- volume of a polyhedron

Lesson 0: Area and Perimeter

Code: C319G05U12L00

Unit Documents

- Unit Documents

Lesson 1: Perimeter of Two-Dimensional Shapes

Code: C319G05U12L01

Objectives

- Estimate and find the perimeter of two-dimensional shapes.

Keywords

- area, perimeter, plane figures

Lesson 2: Area of Two-Dimensional Shapes

Code: C319G05U12L02

Objectives

- Find the area of plane figures.

Keywords

- area, perimeter, plane figures

Lesson 3: Volume of a Polyhedron

Code: C319G05U12L03

Objectives

- Find the volume of a polyhedron.

Keywords

- polyhedron, prism, rectangular prism, volume of a polyhedron

Lesson 4: Area of Irregular Two-Dimensional Figures

Code: C319G05U12L04

Objectives

- Find the area of irregular two-dimensional shapes.

Keywords

- polyhedron, prism, rectangular prism, volume, volume of a polyhedron

Lesson 5: Area of Parallelograms

Code: C319G05U12L05

Objectives

- Find the area of a parallelogram.

Keywords

- area, area of a parallelogram, parallelogram, rectangle

Lesson 6: The surface area of three-dimensional figures

Code: C319G05U12L06

Objectives

- The student will find the surface area of cubes and rectangular prisms.

Keywords

- prism, rectangular prism, cube, area, surface area

Unit 13. Statistics

At the end of this unit, the student will achieve the objectives found in the following lessons.

Unit Concepts

- average
- axes
- bar graph
- circle graph
- column
- coordinate
- coordinate plane
- data
- experiments
- frequency table
- horizontal line
- key
- line graph
- mean
- median
- mode
- ordered pair
- pictograph
- population
- prediction
- probability
- range
- sample
- statistics
- survey
- tally table
- vertical line

Lesson 0: Statistics

Code: C319G05U13L00

Unit Documents

- Unit Documents

Lesson 1: Probability of an Event

Code: C319G05U13L01

Objectives

- Find the probability of an event.

Keywords

- probability

Lesson 2: Experiments, Surveys, and Predictions

Code: C319G05U13L02

Objectives

- Define what are experiments, surveys, and predictions.
- Gather and organize data.
- Predicts future events.

Keywords

- data, experiments, frequency, frequency table, population, prediction, sample, survey, tally table, statistics

Lesson 3: Ordered Pairs

Code: C319G05U13L03

Objectives

- Locate ordered pairs in a coordinate plane.

Keywords

- column, coordinate plane, data, horizontal line, line, ordered pair, vertical line, axes, coordinate

Lesson 4: Mean, Median, and Range

Code: C319G05U13L04

Objectives

- Find the mean, median, range and mode of a set of data.

Keywords

- average, data, frequency, mean, median, mode, range

Lesson 5: Bar Graphs, Line Graphs, Pie Charts, and Pictographs

Code: C319G05U13L05

Objectives

- Draw bar graphs, linear graphs, circle graphs, and pictographs.
- Construct the appropriate graph.

Keywords

- bar graph, circle graph, data, key, line graph, mode, pictograph, title