Mathematics Abridged Curriculum for primary schools in Uganda
Primary 7

Term I

Topic 1: Set Concepts 8 periods.

Overview:

This is a continuation of work on sets studied in the previous classes. Teachers should not give the learners the formula for calculating the number of subsets in a set, instead, they should involve learners in deriving the formula on their own after engaging them practically in listing subsets. Finite and infinite sets are introduced and these concepts should be explained to the learner properly using examples drawn from everyday life. Concerning Venn diagrams, concentration should be on use of representation and interpretation of two events.

Competences	Content	Suggested activities
• Represents information on Venn diagrams • Solves problems involving Venn diagrams • Works out probability of events using Venn diagrams • Identifies/ signs finite and infinite sets. • Identifies/ signs proper subsets • Derives the formula for finding the number of subsets. • Determines the number of subsets.	• Venn diagrams (2 events) • Probability • Finite and infinite sets • Subsets • Proper subsets	• Solving real life problems involving Venn diagrams • Working out probability of events using Venn diagrams • Identifying/ signing finite and infinite sets. • Identifying / signing proper subsets • Deriving formula for finding the number of subsets. • Determining the number of subsets.

Suggested Competences for Assessment

The learner;

a) Solves real life problems involving Venn diagrams
b) Works out probability of events using Venn diagrams
c) Identifies/ signs finite and infinite sets.
d) Identifies / signs proper subsets
e) Derives the formula for finding the number of subsets.
f) Determines the number of subsets.

Topic 2: Whole Numbers 8 periods.

Overview:

This topic links various areas of Mathematics and relates them to real world applications. It will be very important to use various manipulatives in this topic in order

to provide learners with a clear visual representation of number concepts. Involve learners in reading, counting and writing/ brailling numbers up to eight digits correctly.

Competences	Content	Suggested activities
• Writes/ braille numbers in words up to 99,999,999. • Writes/ braille Roman numerals up to MM. • Cconverts Roman numerals to Hindu Arabic numbers and vice versa. • Converts numbers from other bases to base ten and vice versa. •	• Numbers up to 99,999,999 • Roman numerals up to MM	• Writing/ brailling numbers in words up to 99,999,999. • Writing/ brailling Roman numerals up to MM. • Converting Roman numerals to Hindu Arabic numbers and vice versa. • numbers from other bases to base ten and vice versa.

Suggested Competences for Assessment

The learner;

a) Writes/ braille numbers in words up to 99,999,999. .
b) converts numbers from other bases to base ten and vice versa.

Topic 3: Operations on Whole Numbers 7 periods.

Overview:

It is very important that learners see Mathematics they perform, as part of their daily life. Providing opportunities to apply basic concepts and operations in daily activities will reinforce learners' skills and motivate them to progress in Mathematics. In this topic, mathematical operations are carried out on the whole numbers. Use various problem-solving strategies to help learners respond to the thinking and logical reasoning skills so as to develop their sense of numbers.

Competences	Content	Suggested activities
• Applies the basic operations integrated with commutative, associative and distributive properties. • Writes /braille numbers in expanded form and vice-versa	• The four basic operations • Expanded form using indices • Standard form (Scientific notation) • Prime	• Applying the basic operations integrated with commutative, associative and distributive properties. • Expanding numerals using indices. • Writing/ brailling numbers in standard form.

• Writes/ braille numbers in standard form. • Prime factorises whole numbers • Finds square roots of square numbers • Solves problems involving application of square roots. • Adds, subtracts and multiplies in binary system up to 5 digits	factorization • Bases (Base two, Base five & Base ten)	• Finds square roots of square numbers by prime factorisation • Solving problems involving application of square roots. • Adding, subtracting and multiplying in binary system up to 5 digits

Suggested Competences for Assessment

The learner;

a) Applies the basic operations integrated with commutative, associative and distributive properties.
b) Writes numbers in expanded form
c) Writes/ braille numbers in standard form.
d) Prime factorises whole numbers
e) Finds square roots of square numbers
f) Solves problems involving application of square roots.
g) Adds, subtracts and multiplies in binary system up to 5 digits

Topic 4: Patterns and Sequences **7 periods.**

Overview:

Patterns in nature guide us in looking for an underlying rule or cause. A sequence or pattern gives a clue. Number patterns are all about prediction. Recognising number patterns is also an important problem-solving skill. When you look systematically at specific examples, you can use that pattern to generalise what you see as a broader solution to a problem.

The concepts of multiples and factors should be revised. This will not only help learners to understand tests of divisibility but also develop in them a wider understanding of patterns and sequences.

Let learners experience with a variety of patterns and sequences. This in turn will help them to know how one leads to the other.

Competences	Content	Suggested activities
• Finds out whether a number	• Divisibility tests	

is divisible by another using divisibility tests. • Forms patterns and sequences of numbers using composite, square, cubic, triangular, prime numbers	of 6, 8, 9, 10 and 11 • Number patterns and sequences.	• Determining divisibility tests of numbers divisible by 6, 8, 9, 10 and 11 • Forming patterns and sequences using: composite, triangular, square, cubic, prime, odd and even numbers

Suggested Competences for Assessment

The learner;

a) Finds out whether a number is divisible by another using divisibility tests.
b) Forms patterns and sequences of numbers using composite, square, cubic, triangular, prime numbers.

TERM II

Topic 5: Fractions **18 periods.**

Overview:

- This is not a new topic as it was already introduced right from P1. However, at this level, learners will be given an opportunity to explore the relationship between fractions and decimals. The use of various materials will be very useful in teaching and learning fraction concepts in relation to real world applications. **Merging primary 6 content with that of primary 7 apart from ratios and proportions. Since ratios and proportions appear in both classes, the teacher should teach the concept from simple to complex.**

Competences	Content	Suggested activities
• Multiplies fractions. • Divides fractions. • Applies BODMAS. • Solves simple problems involving application of fractions in real life. • Rounds off decimals up to hundred thousandths. • Writes/ braille fractions as decimals and decimals as fractions • Identifies the relationship between ratios and proportions. • Converts fractions to percentages and vice versa. • Solves problems involving	• Multiplication of fractions. • Division of fractions. • Mixed operations on fractions. (BODMAS) • Solving simple problems involving fractions. • Rounding off decimals. • Writing fractions as decimals and vice versa. • Ratios and proportions.	• Multiplying fractions. • Dividing fractions. • Applying BODMAS. • Identifying the relationship between ratios and proportions. • Solving problems involving percentages, ratios and proportions. • Solving problems involving simple interest. • Rounding off decimals up to hundred thousandths. • Writing/ brailling fractions as decimals and decimals as fractions • Solving simple problems

percentages, ratios and proportions. • Solves problems involving simple interest.	• Percentages. • Simple interest.	involving application of fractions in real life.

Suggested Competences for Assessment

The learner;

a) Multiplies fractions.
b) Divides fractions.
c) Applies BODMAS.
d) Identifies the relationship between ratios and proportions.
e) Converts fractions to percentages and vice versa.
f) Solves problems involving percentages, ratios and proportions.
g) Solves problems involving simple interest.
h) Rounds off decimals up to hundred thousandths.
i) Writes/ braille fractions as decimals and decimals as fractions
j) Solves simple problems involving application of fractions in real life.

Topic 6: Integers **7 periods.**

Overview:

An integer is a whole number (not fraction) that can be positive, negative or zero. Revise work that was covered in primary 5 and 6 before you continue with the content for this class. In this topic, learners will master the concept of integers which will help them to determine location of a point within a group. During lock down some learners have been transacting business making profit and loss. This can be used to show positive and negative integers.

Competences	Content	Suggested activities
• Solves problems involving application of integers. • Carries out basic operations (addition, subtraction, multiplication) of clock arithmetic and solves related problems. • Solves word problems involving clock arithmetic	• Application of integers. • Clock arithmetic • Word problems involving clock arithmetic.	• Solving problems involving application of integers. • Carrying out basic operations (addition, subtraction, multiplication) of clock arithmetic and solves related problems. • Solving word problems involving clock arithmetic

Suggested Competences for Assessment

The learner;

a) Draw number lines showing integers.
b) Adds and subtracts integers.

c) Solves problems involving application of integers.
d) Carries out basic operations (addition, subtraction, multiplication) of clock arithmetic and solves related problems.
e) Solves word problems involving clock arithmetic.

Topic 7: Data handling 14 periods.

Overview:

Some problems require the learners to make conclusions based on the relationships in the facts of the problem. One of the ways to do this is through organising and displaying facts using graphs. The ability to interpret data presented in tables and graphs is a common requirement in our daily life. Data interpretation and construction are central practices in Mathematics which require a learner to read a graph in order to obtain information. Therefore, it is important to emphasise accuracy in collection, presentation, recording and interpretation of data.

Competences	Content	Suggested activities
• Calculates simple statistics. • Presents and interprets data on a pie chart. • Calculates probabilities of simple events. • Presents and interprets information on travel graphs • Presents and interprets information on coordinate grid.	• Presentation of data on a pie-chart. • Probability of simple events. • Travel graphs • Graphs of ordered pairs of coordinates	• Calculating simple statistics. • Presenting and interpreting data on a pie-chart. • Solving problems involving probabilities. • Presenting and interpreting information on travel graphs • Presenting and interpreting information on coordinate grid.

Suggested Competences for Assessment

The learner;

a) Calculates simple statistics.
b) Presents and interprets data on a pie-chart.
c) Calculates probabilities of simple events.
d) Presents and interprets information on travel graphs
e) Presents and interprets information on coordinate grid.

Topic 8: Money 6 periods.

Overview:

Learners already have some background about money. In this class, learners are introduced to conversion of money. As a teacher, you should explain to the learner the various currencies used by various countries starting with the immediate neighboring countries. Use real money when naming and identifying Uganda currency. You may use

play money when dealing with foreign currency. Let learners read exchange rates from newspapers in order to appreciate the importance of using current exchange rates. This can be effectively done through guided discovery and discussion.

Competences	Content	Suggested activities
• Names/ signs money/ currencies for different countries. • Converts Uganda money/ currency to another currency and vice versa. • Solves problems involving exchange rates	• Exchange rates. • Conversion of currency.	• Reading/ signing exchange rates from newspapers. • Naming/ signing various currencies for different countries. • Reading/ signing exchange rate tables. • Converting Uganda currency to another currency and vice versa (use currencies of East Africa, Britain and USA)

Suggested Competences for Assessment

The learner:

a) Reads exchange rates.
b) Converts Uganda currency to another currency and vice versa.
c) Explains why currency conversion is done.

Topic 9: Lines, Angles and Geometric Figures 14 periods.

Overview:

In this class, this topic which is under the theme **Geometry** is named as *Geometric Constructions,* however, in all the other classes it is *Lines, Angles and Geometric Figures*. Geometry is all about shapes and their properties which enable the learner to make predictions about the physical world.

Everything has a shape and the study of geometric shapes is a very important part of Mathematics which enables learners to appreciate the basic ideas involved in other fields such as construction of buildings, bridges, dams and designs of other familiar articles.

It is therefore very important that learners get involved in practical work so as to explore the different aspects of geometry. Let them identify different geometric shapes and their properties.

Competences	Content	Suggested activities
• Applies Pythagoras theorem to find the length of a right-angled triangle.	• Pythagoras theorem and its application.	• Constructing right angled properties. • Using small squares to

• States the properties of prisms. • Identifies quadrilaterals and their classification. • Constructs parallel lines. • Identifies/ signs: – vertically opposite angles. – Co-interior, corresponding and alternate angles. • Constructs and bisects angles. • Constructs simple polygons. (triangles, quadrilaterals and regular Hexagons) • States properties of regular polygons and solids. • Applies the formulae for exterior and interior angle sum of polygons. • Draws bearing and scale.	• Simple properties of prisms. • Quadrilaterals and their angle properties. • Parallel lines • Angles formed on parallel lines. • Bisecting angles • Interior and exterior angles of a triangle. • Simple polygons • Bearing and Scale drawing.	derive Pythagoras theorem. • Stating properties of prisms. • Stating the properties and angle properties of quadrilaterals. • Constructing parallel lines. • Identifying/ signing: – vertically opposite angles. – Co-interior, corresponding and alternate angles. • Constructing and bisects angles. • Constructing simple polygons. • Stating properties of regular polygons and solids. • Applying the formulae for exterior and interior angle sum of polygons. • Drawing bearing and scale.

Suggested Competences for Assessment

The learner;

a) Constructs angles using geometric instruments.
b) Works out problems involving angles.
c) Derives Pythagoras theorem, by constructing right angled triangles and using small squares.
d) Constructs angles, circles and regular hexagons.
e) Practices folding to form lines of symmetry.
f) Constructs parallel lines.
g) Identifies/ signs: – vertically opposite angles. – Co-interior, corresponding and alternate angles.
h) Constructs and bisects angles.
i) Constructs simple polygons.
j) States/ signs properties of regular polygons and solids.
k) Applies the formulae for exterior and interior angle sum of polygons.
l) Draws bearing and scale.

Topic 10: Time **7 periods.**

Overview:

This topic applies in our everyday life situations locally and internationally. This, therefore, means that the teacher should make a deliberate effort to teach this topic practically especially when it comes to 24-hour clock.
The correct mathematical language should be used when expressing units of time.
Speed, distance and time which should have been covered in primary 6 has been shifted to primary 7. Give learners activities which will help them to discover how speed, distance and time are connected.

Competences	Content	Suggested activities
• Solves problems involving time, speed and distance. • Reads/ signs and tells/signs time on 12 and 24 - hour clocks. • Solves problems involving time in 12 and 24- hour clock. • Reads/ signs timetables and finds durations.	• Time. • Distance. • Speed. • 12 and 24-hour clocks. • Time-tables (travel, class and work timetable).	• Stating the relationship between time, speed and distance. • Applying the formula relating to distance, time and speed. • Reading /signing time on the 12 and24 hour clocks • Converting time from12-hour to 24-hour and vice versa • Reading/signing time tables • Finding duration • Solving problems involving time

Suggested Competences for Assessment

The learner;

a) Solves problems related to distance, speed and time.
b) Reads/ signs and tells/ signs time on 12 and 24 - hour clocks.
c) Solves problems involving time in 12 and 24- hour clock.
d) Reads/ signing timetables and finds durations.

TERM III

Topic 11: Length, Mass and Capacity **15 periods.**

Overview:

This topic will help learners to describe the world they are living in using the ideas of length, mass and capacity to manipulate the world and manage it. Since it is not a new topic, it will be easier and interesting to learners especially when it is done practically.

Competences	Content	Suggested activities
• Calculates length, perimeter and area of figures using standard measures. (triangles and quadrilaterals) • Solves real life problems involving perimeter and area. • Calculates circumference and area of circles	• Perimeter and area of triangles and quadrilaterals • Circumference and area of circles • Volume • capacity	• Finding circumference of a circle practically. • Using small squares to calculate the area of a figure practically. • Using standard containers to find the capacity of a given figure. • Comparing the number of small

• Solves real life problems involving circumference and area of circles • Calculates volume of solid figures (cubes, cuboids and cylinders) • Calculates volume and capacity in real life situations		containers poured in a bigger container. • Calculating: – length – perimeter and area of triangles and quadrilaterals – area and circumference of a circle • Finding the difference between volume and capacity • Calculating the volume and Capacity of cylinders, cuboids and cubes

Suggested Competences for Assessment

The learner;

a) Finds the circumference, area, volume and capacity in relation to real life situations.
b) Solves problems involving circumference, area, capacity and volume.
c) Calculates length, perimeter and area of figures using standard measures.
d) Calculates volume of solid figures.
e) Solves real life problems involving perimeter and area.

Topic 12: Algebra 15 periods.

Overview:

At this level, the learners can solve equations and inequalities involving unknown letters. Two operations can be introduced in one expression.
They should be given many real-life situation examples where algebra is applied. Allow them to solve algebraic problems on their own.

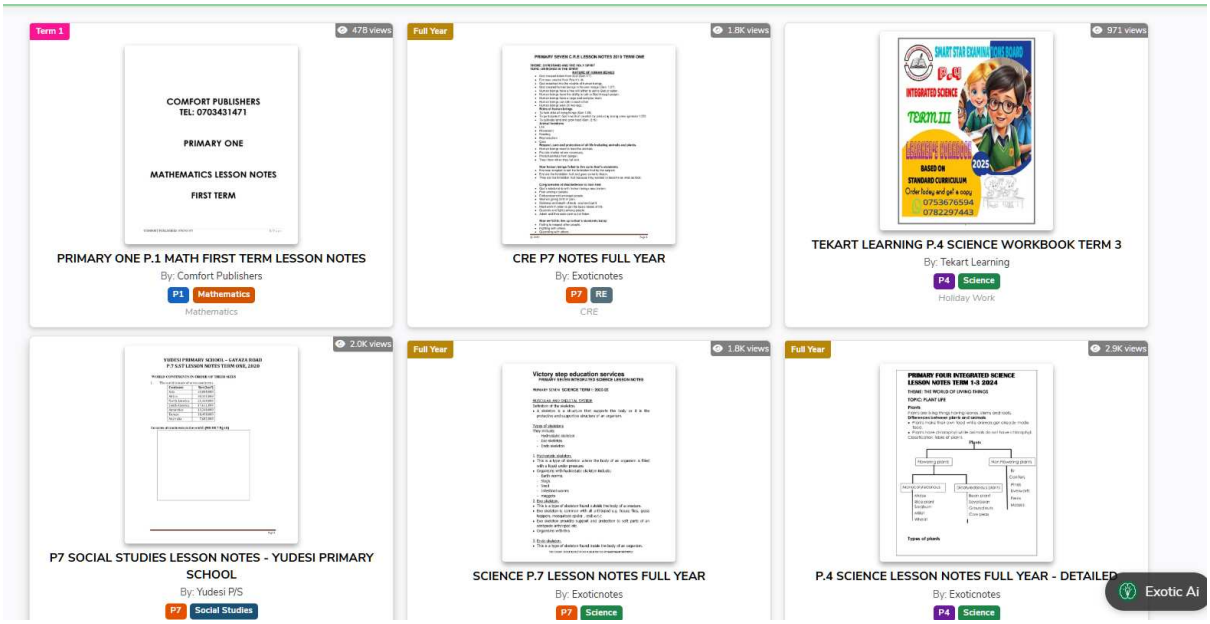
Competences	Content	Suggested activities
• Substitutes values for the unknown. • Solves simple equations. • Solves inequalities and finds solution sets. • Solves problems involving the application of algebra.	• Algebraic expressions. • Substitution. • Equations • Inequalities and solution sets • Algebra in real life situations	• Identifying unknowns. • Identifying like terms. • Finding the value of the unknown. • Substituting value for the unknown. • Solving equations • Solving inequalities and finding solution sets • Solving problems involving application of algebra

Suggested Competences for Assessment

The learner;

a) Simplifies algebraic expressions.
b) Substitutes value for the unknown.
c) Solves equations.
d) Solves inequalities and finds solution sets.
e) Solves problems involving the application of algebra.

This document was downloaded from https://exoticnotes.com



Do you need more LESSON NOTES for Primary (All classes)?

Click
https://exoticnotes.com/notes/primary/

If you need LESSON NOTES for SCIENCE (P.1 – P.7)
Click
https://exoticnotes.com/notes/primary/science/

If you need LESSON NOTES for English (P.1 – P.7)
Click
https://exoticnotes.com/notes/primary/english/

If you need LESSON NOTES for Mathematics (P.1 – P.7)
Click
https://exoticnotes.com/notes/primary/mathematics/