

PRY 2 MATHEMATICS 1ST TERM E-NOTE

Week: one

Class: primary two

Topic: whole number 1-200.

Behavioural objectives: At the end of the lesson pupils should be able to,

1. Count numbers correctly from 1-200.
2. Identify and read numbers from 1-200.
3. Identify order and write numbers up to 200.

Instructional material/Reference material:

1. Concrete objects such as bottle tops, stick, small water proof bags for bundles of seeds/bottle tops, ropes, straw and two hundred squares charts.

2 flash cards, sticks, chart of numbers 1-200

Building Background /connection to prior knowledge: pupils can count 1-100

Content: TEACHING AID: Concrete objects such as bottle tops, sticks, seeds, small waterproof bags for bundles of seeds/bottle tops, ropes, straws and two hundred square charts etc. Flash cards and Charts of numbers 1-200 etc

Numbers 1 to 200

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200

PROCEDURE

STEP1: Stimulate pupils' interest for the day's task by the use of set induction. Revise their previous knowledge by asking them to count 1-100.

Step 2: Introduce new lesson by engaging pupils in a song that has to do with counting. Guides pupils to revise counting of numbers from 1-99 using counters and 100-square charts;

STEP3: Develop lesson by adding one counter to 99 counters, and recap that 100 is equal to 99 plus one i.e. $100 = 99 + 1$. Guide pupils to count numbers 1 to 200. Write 1 to 200 on the chalkboard and count with pupils. Invite pupils to identify some numbers on the chalkboard e.g 12, 15, 23, etc

Step 4. Develop lesson further by guiding pupils to use the teaching aid, to build up piles in tens and units, and demonstrates that bringing three piles of tens and eight sticks represent 38 e.t.c.

Build up piles in tens and units, guide pupils to use bundles or piles to demonstrate place value. Write numbers 1-200 on the chalkboard and guide pupils to write same in their mathematics notebook.

Evaluation

Teacher should guide the pupils to

1. Arrange and count correctly using bottle tops in tens up to two hundred.
2. Counts bundles of straws in tens and hundreds up to two hundreds.
3. Build piles corresponding to given numbers.
4. Say the number representing a pile.

Homework: pupils should write from 1-300

Week: Two

Class: primary Two.

Topic: Whole numbers 1-200

Behavioural objectives: At the end of the lesson pupils should be able to:

1. Count numbers correctly from 1- 200.
2. Identify and read numbers from 1- 200
3. Identify order and write numbers up to 200.

Instructional material/Reference material: number charts, counters.

Building Background /connection to prior knowledge: The pupils are familiar with the topic.

Content:

When one figure is written the figure is under unit

I. e U. U

4, 5

When it is two we will write it under tens

I.e. $46 = 40 + 4$. That means 4tens and 4unit

T. U. T U

4. 4. 9. 8

When the figure becomes three that means hundred is included.

I.e. $463 = 4\text{hundred} + 6\text{tens} + 3\text{units}$

H T U. H T U

4 6 3. 5 7 3

Evaluation:

5. Build piles corresponding to a given number.
6. Identify and read given number on flash cards.
7. Write given numbers in expanded form.
8. Order given piles of numbers.
9. Write numbers up to 200.

Week: Three

Class: Primary Two

Topic: Fractions I

Behavioural objectives: At the end of the lesson pupils should be able to:

1. Divide a collection of concrete objects into two equal parts and four equal parts.

Instructional material/Reference material:

1. Oranges
2. Cardboard Paper etc.

Building Background /connection to prior knowledge: The pupils are familiar with the topic.

Content:

Fraction.

What is Fraction? Fractions represent equal parts of a whole or a collection.

Fraction of a whole: When we divide a whole into equal parts, each part is a

fraction of the whole. For example, Fraction of a collection: Fractions also

represent parts of a set or collection. For example, There are total of 5 children.3

out of 5 are girls. So, the fraction of girls is three-fifths ($\frac{3}{5}$).2 out of 5 are boys.

So, the fraction of boys is two-fifths ($\frac{2}{5}$).Fraction notation A fraction has two parts.

The number on the top of the line is called the numerator. It tells how many equal parts of the whole or collection are taken.

The number below the line is called the denominator. It shows the total divisible number of equal parts the whole into or the total number of equal parts which are there in a collection. Fractions on a number line: Fractions can be represented on a number line, as shown below. For examples,



Real life examples: The most common examples of fractions from real life are equal slices of pizza, fruit, cake, a bar of chocolate, etc. Non-examples when the parts of the whole are unevenly divided, they don't form fractions of fractions Unit fractions with numerator 1 are called unit fractions.



Proper fractions: Fractions in which the numerator is less than the denominator are called proper fractions e.g. $\frac{2}{7}$, $\frac{5}{10}$ e.t.c.

Improper fractions: Fractions in which the numerator is more than or equal to the denominator are called improper fractions. e.g. $\frac{9}{2}$, $\frac{8}{3}$, $\frac{20}{5}$ e.t.c.



Evaluation: Teacher should guide the Pupils to:

1. find $\frac{1}{2}$ and $\frac{1}{4}$ of given collections of objects.

Week: Four

Class: Primary Two

Topic: Fractions II

Behavioural objectives: At the end of the lesson; pupils should be able to;

1. obtain $\frac{3}{4}$ of a concrete object.

Instructional material/Reference material:

1. Oranges


2. Cardboard Papers etc.

Building Background /connection to prior knowledge: Pupils can definitely a fraction and knows the different types of Fractions.

Content: Fractions

A fraction is a part of a whole number, and a way to split up a number into equal parts. It is written as the number of equal parts being counted, called the numerator, over the number of parts in the whole, called the denominator. These numbers are separated by a line. There are different types of fraction and different ways of writing the same fraction. Just like whole numbers, it is possible to add, subtract, multiply, and divide fractions. The size of fractions can also be compared to find the smallest or the largest fraction.

Fractions, Decimals and Percentages

Picture	Fraction	= Fraction	Percentage	Decimal
	$\frac{1}{2}$	$\frac{50}{100}$	50%	0.5
	$\frac{1}{4}$	$\frac{25}{100}$	25%	0.25
	$\frac{1}{5}$	$\frac{20}{100}$	20%	0.2
	$\frac{1}{10}$	$\frac{10}{100}$	10%	0.1

Evaluation: Find $\frac{3}{4}$ of given collection of objects.

Week: five

Class: primary two

Topic: Addition I

Behavioural objectives: At the end of the lesson pupils should be able to:

1. Add 2-digit numbers without exchanging or renaming.
2. Add 3 digits number without exchanging or renaming.
4. Add 3 numbers taking two at a time.

Instructional material/Reference material:

1. Number beads.
2. Bean seed
3. Card etc.
4. Charts on addition of 3-digit numbers without renaming etc.
5. Counters such as sticks bottle tops.
6. Addition cards

Building Background /connection to prior knowledge: Pupils can add two digits number.

Content:

1 Revision of addition of 2- digit numbers without exchanging or renaming.

$$\begin{array}{r} \text{T. U} \\ 1. \quad 5. \quad 2 \\ + 2 \quad 3 \\ \hline \\ 7. \quad 5. \end{array}$$

Remember that you will start your addition from the right hand side under unit. You will count 2 and count 3 and you will count it together your answer will be 5 then you will write it and repeat the same process under T(tens) .

2, $15+14= 29$.

Addition problems of 3-digit numbers

1. $141 + 125 =$

$$\begin{array}{r} \text{HTU} \\ 141 \\ + 125 \\ \hline = 266 \end{array}$$

Example 2.

HTU

253


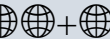

+125

= 378

3.  +  + 

3 +. 5. + 3

=11

4.  +  + 

5. +. 3. +. 2

=10.

5.  +  + 

4. + 4. + 2

×10.

Evaluation: Pupils should be able to:

1. Add given 2 digit numbers without exchanging or renaming.
2. Add 3 digit numbers vertically without exchanging or renaming.

Week: Six

Class: Primary two.

Topic: Addition II

Behavioural objectives: At the end of the lesson pupils should be able to;

1. Add 3-digit numbers with exchanging or renaming.
2. Add 3 numbers taking two at a time.

Instructional material/Reference material: pictures and charts.

Building Background /connection to prior knowledge: Pupils can add both 2 and 3 digit numbers vertically without exchanging or renaming.

Content:

Writing of numbers in an expanded form

e.g. $96 = 9 \text{ tens} + 6 \text{ units}$.

$2,458 = 4 \text{ hundreds} + 5 \text{ tens} + 8 \text{ units}$.

Addition problems on 2- digits with exchanging or renaming.

TU

e.g. $76 + 19 = 76$

$+ 19$

$= 95$

You will start your addition from the right hand side, you will add 6 and 9 together your answer will be 15, 1 tens and 5unit, u will write the tens and keep the unit then you will add 7 and 1 together you answer will be 8 you will now add the 1 that you kept your answer now will be 9.

2. Addition of 3 digits numbers with exchanging or remaining.

$$854+526=. \text{ HTU}$$

$$\begin{array}{r} 854 \\ + 526 \\ =1380 \end{array}$$

Add 4 and 6 together write 0 and keep 1.

Add 5 and 2 and the 1 u kept together=6

Add 8 and 5 together your answer will be 13, write it down.

Example 2:

$$\begin{array}{r} \text{THU} \\ 589 \\ +368 \\ = \\ 957. \end{array}$$

Evaluation: At end of the lesson pupils can add both 2 and 3 -digits numbers with exchanging or renaming.

Week: Seven

Class: Primary Two

Topic: Subtraction I

Behavioural objectives: At the end of the lesson pupils should be able to:

1. Subtract 2digit numbers without exchanging or renaming.
2. Subtract 2digit numbers with exchanging and renaming.
3. Apply addition and subtraction in everyday activities.

Instructional material/Reference material:

1. Number cards.
2. Cardboard strips with numerals and number line etc.
3. Number beads.
4. Sticks.
5. Counters such as oranges, beans seed bottles tops.

Building Background /connection to prior knowledge: The pupils have learnt addition.

Content:

1. Revision of subtraction of 1digit numbers.

1. $5-3=2$

2. $8-6=3$

2. $7-5=2$.

Subtraction with the using of counters:

Example1

If you have 10 pineapples in kitchen and you are 4 in the morning how many pineapples do you now have?

You will Subtract 4 from 10

$\begin{array}{ccccccc} \text{P} & \text{P} & \text{P} & \text{P} & - & \text{P} & \text{P} & \text{P} & \text{P} & \text{P} \\ \text{P} & \text{P} & \text{P} & \text{P} & - & \text{P} & \text{P} & \text{P} & \text{P} & \text{P} \end{array}$

$(\text{P} \text{ P} \text{ P} \text{ P}) - \text{P} \text{ P} \text{ P} \text{ P} \text{ P} \text{ P}$

Your answer will be six that means you have six pineapples in your kitchen.

Expressing of plans value e.g:

$36=3\text{tens}, 6\text{units}.$

$28= 2\text{tens}, 8\text{units}.$

$90= 9 \text{ tens}; 0\text{units}.$

Subtractions of two digits numbers.

48

-22

=

26

2. 53

-32

=

21.

Evaluation

1. Subtract 2digit numbers without exchanging or renaming.
2. Subtract 2digit numbers with exchanging and renaming.
3. Mention four everyday activities accuracy is needed.

Week: Eight

Class: primary Two

Topic: Subtraction I

Behavioural objectives: At the end of the lesson the pupils should be able to,

1. Subtract f 2- digit numbers with exchanging and renaming.
2. apply addition and subtraction in everyday activities.

Instructional material/Reference material:

1. Number card
2. Cardboard strips with numerals and number line
3. Number beads.
4. Sticks.
5. Counters such as oranges, beans seed bottle tops.

Building Background /connection to prior knowledge:

1. Pupils can subtract 2digit numbers without exchanging or renaming.
2. Pupils can subtract 2digit numbers with exchanging and renaming.

Content:

Subtraction of 2- digits numbers without exchanging or renaming.

$$\begin{array}{r} 1. \quad 53 \\ - 21 \\ = \\ 32 \end{array}$$

$$\begin{array}{r} 2. \quad 94 \\ - 32 \\ = \\ 62 \end{array}$$

Identification of the digit that are in tens and units

e.g.

48=4tens and 8units.

57= 5tens and 7units.

83= 8tens and 3units.

56=5tens and 6units.

Evaluation

1. Subtract 2-digit numbers without exchanging or renaming.
2. subtract 2-digit numbers with exchanging and renaming.

Week: Nine

Class: Primary Two

Topic: Multiplication I

Instructional material/Reference material:

1. Number cards.
2. Cardboards strips with numerals and number line etc.
3. Number beads.
4. Sticks

Behavioral objectives: At the end of the lesson pupils should be able to:

1. multiply numbers using repeated additions.
2. apply corrections in multiplication as important in everyday activities.

Building Background /connection to prior knowledge: pupils are very good at addition and subtraction of numbers.

Content:

As you coming to school this morning if your mother gave you three sweets, your daddy gave three sweets and your brother saw you on your way coming and gave you another three sweets. How many sweets do you have now?

3sweets in 3places

$$3. \quad \times. \quad 3$$

That is $3+3+3=9$.

Example 2 4×3

$$4 + 4 + 4 + 4 = 12$$

Multiplication as computing a sum of numbers

Examples

$$\begin{array}{r} \square \square \quad \square \square \Rightarrow \square \square \square \\ \square \quad \quad \square \quad \quad \square \square \square \\ 3 \quad + \quad 3 \quad = \quad 6 \\ 2 \times 3 \quad = \quad 6 \end{array}$$

$$\begin{array}{r} \circ \circ \quad \circ \circ \quad \circ \circ \quad \circ \circ \quad \Rightarrow \circ \circ \circ \circ \circ \\ \circ \quad \quad \circ \quad \quad \circ \quad \quad \circ \quad \quad \Rightarrow \circ \circ \circ \circ \circ \\ \circ \circ \quad \circ \circ \quad \circ \circ \quad \circ \circ \quad \Rightarrow \circ \circ \circ \circ \circ \\ \circ \circ \circ \circ \circ \\ 5 \quad + \quad 5 \quad + \quad 5 \quad + \quad 5 \quad = \quad 20 \\ 4 \times 5 \quad = \quad 20 \end{array}$$

EVALUATION

Copy and complete the following.

1. $3 \times 4 = \square$ groups of $\square = \square$

2. $5 \times 7 = \square$ groups of $\square = \square$

3. $10 \times 6 = \square$ groups of $\square = \square$

4. $3 \times 12 = \square$ groups of $\square = \square$

5. $6 \times 9 = \square$ groups of $\square = \square$

Week: Ten

Class: primary

Topic: Multiplication II

Behavioural objectives: At the end of the lesson pupils should be able to;

1. Apply correctness in multiplication for everyday activities.

Instructional/Reference material:

1. Counters such as oranges, beans seed, bottle tops.

Building Background /connection to prior knowledge: pupils already knows multiplication with repeated addition.

Content:

Multiplication as repeated addition and the use of symbol “x”.

1. $3 \times 5 = 3 + 3 + 3 + 3 + 3 = 15$

2. $3 \times 6 = 3 + 3 + 3 + 3 + 3 + 3 = 18$

3. $5 \times 2 = 5 + 5 = 10$

4. $5 \times 4 = 5 + 5 + 5 + 5 = 20$

5. $3 \times 4 = 3 + 3 + 3 + 3 = 12$

6. $4 \times 2 = 4 + 4 = 8$

7. $5 \times 3 = 5 + 5 + 5 = 15$

8. $2 \times 5 = 2 + 2 + 2 + 2 + 2 = 10$

9. $2 \times 7 = 2 + 2 + 2 + 2 + 2 + 2 + 2 = 14$

10. $6 \times 2 = 6 + 6 = 12.$

Evaluation:

Exercise

Copy and complete the following.

1. $5 \times 11 = \square$ and $11 \times 5 = \square$

2. $10 \times 4 = \square$ and $\square \times \square = \square$

3. $3 \times 9 = \square$ and $\square \times \square = \square$

4. $4 \times 6 = \square$ and $\square \times \square = \square$

5. $6 \times 8 = \square$ and $\square \times \square = \square$