South Sudan

GRADE 2

Community Girl School

Mathematics

Grade 2

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FOREWORD

I am delighted to write the foreword for this book. The Ministry of General Education and Instruction (MoGE&I) has developed the Community Girls School (CGS) textbooks based on the National Curriculum of South Sudan.

The textbook was written to help learners develop the background knowledge and understanding in the subject. It is intended largely to serve as a source of knowledge and understanding of the subject concerned, but not to be considered as a summary of what learners ought to study.

The National Curriculum is a competency based and learner-centered that aims to meet the educational needs and aspirations of the people of South Sudan. Its aims are manifold: (a) Good citizenship (b) successful lifelong learners, (c) creative, active and productive individuals; and (d) Environmentally responsible members of our society.

This textbook was designed by subject panelists to promote the learners'attainment of the following competencies; critical and creative thinking, communication, cooperation, culture and identity.

No one can write a book of this kind without support from colleagues, friends and family. Therefore, I am pleased to register my thanks to Dr Kuyok Abol Kuyok, the Undersecretary of the Ministry, who emphasized the importance of Alternative Education System (AES) and approved the development of its textbooks.

I also want to record my thanks to Ustaz Omot Okony Olok, the Director General for Curriculum Development Centre (CDC) and Ustaz Shadrack Chol Stephen, the Director General for Alternative Education Systems (AES) who worked tirelessly with thesubject panelists to develop the textbooks.

Lastly, but not least, my greatest thanks and appreciation must go to the Global Partnership for Education (GPE) and UNICEF-South Sudan for without their support and partnership this textbook would not have seen light.

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Unit 1 NUMBERS

1.1: *Reading numbers*

Activity 1: Number names

(I) **Read these number names. Work in pairs.**

a) Twelve
b) Thirteen
c) Seventeen
d) Twenty-six
e) Thirty-four
f) Forty-seven
g) Fifty-one
h) Sixty-six
i) Ninety-seven
j) Eighty-two

(II) **In pairs, write the number.**

a) Two hundred and fifty-four
b) Three hundred and forty-one
c) Five hundred and thirteen
d) Six hundred and seventy-one
e) One hundred and twenty-three
f) Four hundred and seventy-six
g) Seven hundred and twenty-two
h) Nine hundred and twelve
i) Eight hundred and thirty-four

Activity 2:

Read and write in words in your exercise book the numbers below. Work in pairs.

a) 27
b) 34
c) 76
d) 91
e) 53
f) 68
g) 59
h) 48
i) 14
j) 85

Activity 3:

Read and write the numbers below in words. Word in pairs.

a) 216
b) 942
c) 371
d) 415
e) 693
f) 621
g) 512
h) 741

Activity 4:

Copy, read the number name and match with the correct number symbol. Work individually.

One hundred	800
Four hundred	200
Six hundred	300
Two hundred	500
Eight hundred	900
Five hundred	700
Three hundred	600
Nine hundred	400
Seven hundred	100

Activity 5: In Pair

Complete the following activity orally with your partner. Take turns saying the numbers.

Number 1	0 less 1	0 more 1	00 less	100 more
430				
128				
904				
327				
999				
254				
929				

2. Copy the table in your exercise book and fill in the spaces with the correct number.
3. With your partner think of a 4 digit number. Write it down ask your partner to work it out 100 less or 100 more and to tell you the new number. What do you notice?

1.2 Writing Numbers

Look at these examples.

a. 21= twenty-one
b. 234= two hundred and thirty-four
c. 992= nine hundred and ninety-two
d. 764= seven hundred and sixty-four
e. 2456= two thousand, four hundred and fifty-six

1.2: Addition of 3 and 4 digit numbers

Activity 1: In groups

Learners do the following addition of 3 and 4 digit numbers:

(1) Horizontal addition of 3 digit numbers

(a) 102+ 315 =

(b) 596 +103 =

(c) 804+ 113 =

(d) 300+200 =

(e) 156+803 =

(2) Vertical addition of 3 digit numbers:

(a)	(b)	(c)	(d)	(e)
8 10	3 1 5	2 9 0	1 1 2	5 2 6
+1 02	+ 4 8 1	+ 7 0 3	+ 6 7 4	+3 0 2
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

(3) Horizontal addition of 4 digit numbers

(a)1,002 + 3,150 =

(b)5,123+ 1,103 =

(c)2,604 + 1,133 =

(d)3,100 + 2,000 =

(e)1,156 + 8,103 =

(4) Vertical addition of 4 digit numbers

(a) 8, 1 0 0
+1, 0 2 1
_____
_____

(b) 3, 01 5
+ 4, 1 8 1
_____
_____

(c) 3, 2 9 0
+ 2, 7 0 3
_____
_____

(d) 6, 1 12
+ 3, 6 7 4
_____
_____

(e) 1, 5 2 6
+7, 3 0 2
_____
_____

1.3: Subtractions of 3 and 4 digit numbers

Activity 1: In groups

Learners do the following Subtractions of 3 and 4 digit numbers:

(1) Horizontal Subtractions of 3 digit numbers

(a) 315 - 102 =

(b) 596 - 103 =

(c) 804- 103 =

(d) 300- 200 =

(e) 803 – 103 =

(2) Vertical Subtractions of 3 digit numbers

(a)
```
  810
- 100
-----
-----
```

(b)
```
  315
- 215
-----
-----
```

(c)
```
  290
- 010
-----
-----
```

(d)
```
  675
- 671
-----
-----
```

(e)
```
  526
- 302
-----
-----
```

(3) Horizontal Subtractions of 4 digit numbers

(b)3,150 - 1,002 =

(b)5,123 - 1,103 =

(c)2,604- 1,133 =

(d)3,100- 2,000 =

(e) 8,103 - 1,156 =

(4) Vertical Subtractions of 4 digit numbers

(a) 8, 1 0 0
-1, 0 2 1

(b) 6, 19 5
- 4,1 8 1

(c) 3, 9 4 4
- 2,7 0 3

(d) 6 ,777
- 3,6 7 4

(e) 9, 5 2 6
-7,3 0 2

Activity 2: Individually, Work out the following mixed numbers:

(1) Horizontal addition of 3 digit numbers

(a) 611 + 215 =

(b) 472 + 103 =

(2) Vertical addition of 3 digit numbers

(a)
$$\begin{array}{r} 426 \\ +\ 471 \\ \hline \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 196 \\ +\ 703 \\ \hline \\ \hline \end{array}$$

(3) Horizontal addition of 4 digit numbers

(c) 1,222 + 3,151 =

(b) 5,133 + 1,122 =

(4) Vertical addition of 4 digit numbers

(a)
$$\begin{array}{r} 4{,}610 \\ +\ 4{,}203 \\ \hline \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 6{,}112 \\ +\ 3{,}665 \\ \hline \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 1{,}528 \\ +\ 8{,}301 \\ \hline \\ \hline \end{array}$$

1.4: Additions and subtraction by using number lines:

a) State a number that is between 300 and 350. How did you know?

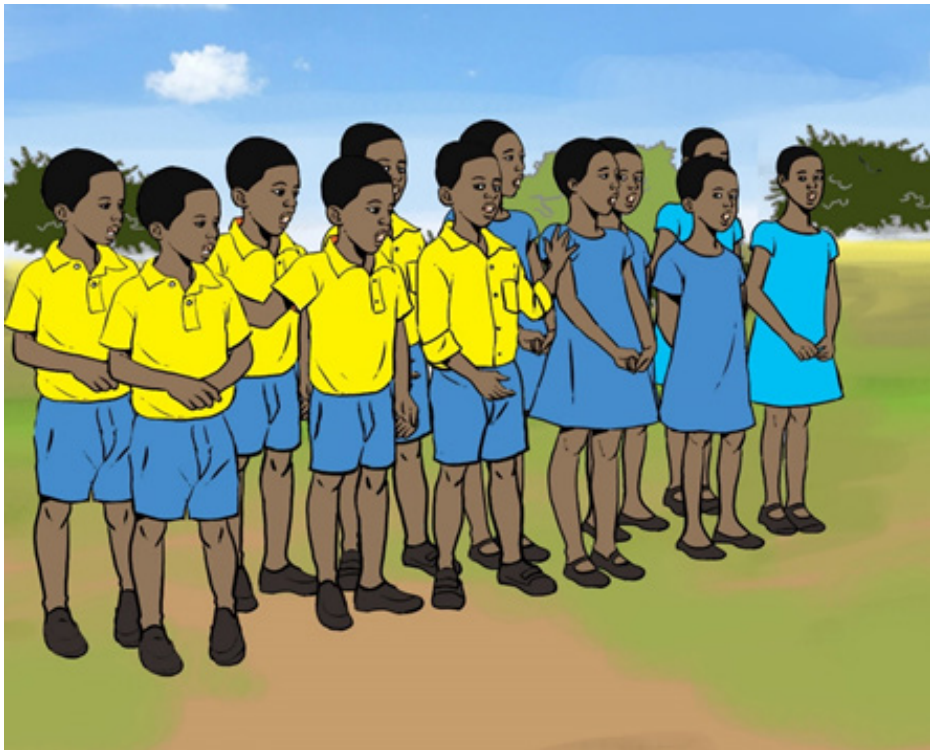
b) State all the numbers which are even. How did you know?

c) State all the numbers that are odd. How did you know?

d) State the numbers which are less than 200. How did you know?

e) State a number that is above 500. How did you know?

Activity 1: Whole class activity.



(I) Go outside. Stand in a straight line to form a number line.

(II) Work in groups.

Draw a straight line and number it as shown below.

The line drawn above is called number line.

Start at number four and count two steps to the right. Where do you stop? At number 6.

4 +2 steps = 6

Start again at number seven. And count 4 steps to the left. Where do you stop? At number 7-4 =3

(III) Work in pairs.

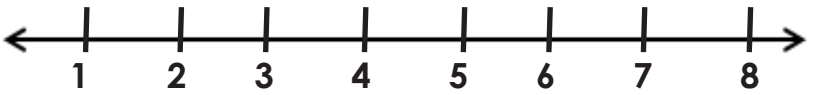
Activity 2:

Add these numbers using a number line.

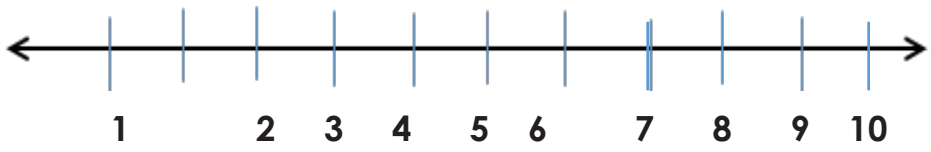
a) 3 + 2 = 5

b) 4 +1=

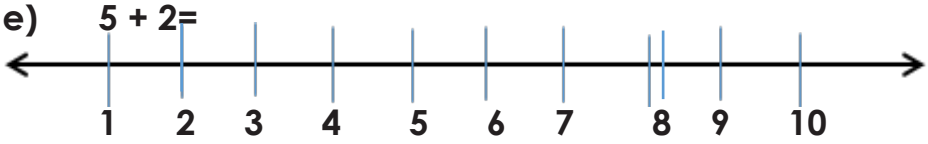
c) 2 + 3 =



d) 6 + 2=



e) 5 + 2=



2. Add using number line

a) 10 + 4=14

b) 21+ 3 =

c) 30 + 5 =

d) 52 + 6 =

e) 46 + 2 =

46 47 48 49

Exercise 1: Add these numbers using a number line.

a) 120 + 4 =124

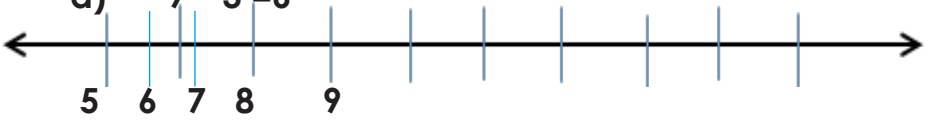
b) 130 + 3 =

c) 145 + 5 =

d) 160 + 7 =

Activity 3: Subtract using number line

a) 9 – 3 =6



b) 10 – 6 =

c) 7 – 2 =

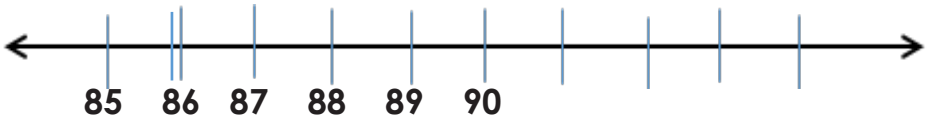
d) 5 – 4 =

Exercise 2: Subtract

a) 20 – 5 =

b) 37 – 6 =

c) 90 – 4 =86



d) 16 – 2 =

e) 40 – 3 =

f) 77 – 7 =

g) 51 – 5 =

h) 44 – 4 =

1.5: Place value up to 4 digit numbers

Place value table

We start finding place values from our left hand to the right as shown in the table below.

NUMBER	Thousands	Hundreds	Tens	Ones
8901	8	9	0	1
154	0	1	5	4
236	0	2	3	6
1873	1	8	7	7

Examples

a. 125 = 1 hundred 2 tens 5 one.

b. 68 = 0 hundred 6 tens 8 one.

c. 7953= 7 thousands, 0 hundreds, 5 tens.

d. 8421= 8 thousand, 4 hundreds, 2 tens, 1 ones.

e. 1122= 1 thousands, 1 hundreds, 2 tens, 2 ones.

1. What are the numbers missing? Work in pairs.

a. 234 =____hundreds ____tens ____ones

b. 1236=____thousands ____hundreds ____tens ___ ones.

c. 3468=____thousands ____hundreds ____tens____ ones

d. 705 =____hundreds ____tens ____ones

Activity 2:

Tell your partner the number.

a. 4 hundreds 6 tens 3 ones =

b. 5 hundreds 4 tens 2 ones =

c. 1 hundreds 7 tens 3 ones =

d. 2 hundreds 2 hundreds 2 tens 2 hundreds =

e. 1 hundreds 4 hundreds 3 tens I ones =

f. 2 thousand 2 hundreds 2 tens ones =

g. 6 tens 2 ones =

h. 9 hundreds 3 ten 2 one=

i. 5 thousands, 4 hundred, 3 tens 2 ones =

Activity 3: In groups, write the following in expanded form. The first one is done for you. Present your work to the class.

a) 319 = 300 + 10 + 9

b) 588

c) 2990

d) 4638

e) 6724

f) 8140

g) 9095

h) 2872

i) 6412

j) 4973

Explain what each digit represents and then order the numbers largest first.

1.6: Mixed Words problems

Work out the following problems:

a. 26 + 42 =

b. 98 +41 =

c. 152 + 61 =

d. 36 – 18 =

e. 108 – 72 =

f. 120 + 32 =

g. 244 – 128 =

h. 3411 + 892 =

i. 2443 + 722 =

j. 6981 – 2221 =

k. 4794 – 794 =

How did you arrive at your answer? Tell your partner check your answers.

Activity 1: Work in pair.

Discuss how you will work out the following problems

What method will you use? Show your working out.

1. **Deng had 326 cows. Abdil had 156 cows. Auma had 215 cows. How many did they have altogether?**
2. **Class one had 324 books. Class two had 245 books while class three had 176 books. How many books were in the three classes in total?**
3. **A farm had 426 mango trees. Another farm had 253 mango trees and another had 234 mango trees.**

   How many mango trees are in the three farms?
4. **There are 276 pupils in a school. There are 425 pupils in another school. If 275 schools joined the two schools how many pupils are there in the two schools altogether?**

1.7: Multiplications:

Activity 1: Recite multiplication tables of 11 and 12

11x1 = 11	12 x 1 = 12
11x2 = 22	12 x 2 = 24
11x3 = 33	12 x 3 = 36
11x4 = 44	12 x 4 = 48
11 x5 = 55	12 x 5 = 60
11x 6 = 66	12 x 6 = 72
11x7 = 77	12 x 7 = 84
11x 8 = 88	12 x 8 = 96
11x 9 = 99	12 x 9 = 108
11x10= 110	12 x 10 = 120
11x11= 121	12 x 11 = 132
11x12 =132	12 x 12 = 144

Activity 2: Work in Pairs

Learners work out multiplications without carrying

1. (a) 2 x 5 = b) 6 x 6 = c) 8 x 4 = d) 3 x 5 =

2. (a) 32 x 2 = b) 41 x 3 = c) 22 x 4 = d) 50 x 3 =

3 (a) 40 x 12 = b) 77 x 01 = c) 31 x 13 = d) 52 x 10 =

Activity 3: Multiplication with carrying

1 (a) 32 x 8 = b) 44 x 4 = c) 77 x 6 = d) 55 x 3 =

2. (a) 54 x 42 = b) 77 x 32 = c) 31 x 35 = d) 27 x 16 =

Activity 4: Problem solving using Multiplication

Word problems. Work in pairs.

work out the following word problems;

How did you work it out? Explain your answer to your partner how you worked it out.

1. A seller had arranged 5 groups of 5 mangoes in each group. How many mangoes had the seller altogether?
2. In a class learners sit in 3's on a desk. How many learners would sit on 4 desks?
3. A farmer planted 4 rows of cabbage on his small garden If he planted 5 cabbages on each row, how many cabbage did he plant altogether?
4. A floor is covered with 4 marts in a row and 4 marts in a column. How many mats had covered the floor?
5. A dog handler had 5 dogs. Each dog has 4 legs. How many legs do they have altogether?
6. A car has 4 wheels. How many wheels do 5 cars have?
7. A man eats 3 meals in a day. How many meals does the man eat in a week?
8. A box contains 10 pens. How many pens are there in 10 boxes?
9. A book costs 10 pounds. How many pounds will 6 books cost?

A bird has 2 legs. How many legs do 9 birds have?

10. Dorothy is 10 years old. Dorothy's father is 3 times her age
    How old is Dorothy's father?
11. The pupils will go on holidays for 4 weeks. How many days will the pupils be on holiday?

1.8: Division

Activity 1: **Talk in pairs**

Division is sharing.

Activity 2: Solve in groups.

1. Share 4 loaves of bread between 2 people. How many loaves of bread does each person get?
2. Share 8 pencils among 8 learners. How many pencils would each learner get?
3. Share 16 books among 8 groups. How many books would each group get?
4. Abdi shared 25 rulers equally among 5 classes. How many rulers did each class get?
5. Amunja share 20 pencils equally among his 4 friends how many pencils did each get?

Use '÷'sign in writing division sentences.

Fifteen pineapples shared among three people. Each person will get five pineapples.

Actaivity 3: Work in groups

Collect 12 small sticks. Share the sticks equally among 4 pupils in the class. How many stick will each pupil get?

12 sticks

Pupil 1 **pupil 2** **pupil 3** **pupil 4**

We can therefore say that 12 ÷4=

Divide: work in groups.

4 ÷2 =
8÷4 =
10÷2 =
10 ÷5 =
15 ÷3 =
15÷5 =
20 ÷2 =
20÷4 =
20 ÷5 =
20÷10 =
25 ÷5 =
30÷2 =
30÷5 =

1.9: Divisibility test for 2, 5 and 10

Have you ever wondered why some numbers will divide evenly (without a remainder) into a number, while others will not?

The Divisibility Rules help us to determine if a number will divide into another number without actually having to divide. There is a divisibility rule for every number. However, some of the rules are easier to use than others. For the rest, it might just be simpler to actually divide.

The Rule for 2: Any whole number that ends in 0, 2, 4, 6, or 8 will be divisible by 2.

Activity 1: Look at the following numbers.

12, 20, 44, 66, 78, 110, 104, 308, 406, 500, 842, 976, 1204, 6348.

1. Are they divisible by 2?
2. How can you determine this?

The Rule for 5: Number that are divisible by 5 must end in 5 or 0.

Activiy 2: Look at the numbers below.

15, 30, 45, 75, 90, 110, 15, 265, 345, 650, 925, 1225, 1750, 1900, 6550, 8755, 9500.

1. Are they divisible by 5?
2. How can you determine this?

The Rule for 10: Numbers that are divisible by 10 need to be even and divisible by 5, because the prime factors of 10 are 5 and 2. This means that for a number to be divisible by 10, the last digit must be a 0.

Activiy 3: Look at the numbers below.

1. Are they divisible by 10?
2. How can you determine this?

In dividing numbers such as 8 ÷ 2, 2 is called a divisor.

Activity 4: Solve in group

Divide:

6 ÷3=	9 ÷3 =	8 ÷ 4 =	12 ÷ 4 =
24 ÷6=	21 ÷3=	12 ÷3=	18 ÷3=
8 ÷2=	10÷5=		

Divide:

2 4 =	2 6 =	2 14 =	5 25 =
4 16 =	4 20 =	5 20 =	3 24 =
3 9 =	2 8 =	2 10 =	5 15 =

1.10: Ordering numbers

Activity 1: Work in pairs.

1. Arrange the numbers from the smallest to the largest.

a) 4, 6, 2, 3, 7, 10, 23, 5

b) 13, 79, 46, 32, 102, 314

c) 400, 200, 600, 900, 100, 300, 500,

d) 830, 340, 513, 570, 215, 184

2. Write the numbers missing in the following sequence.

a) 100, _____, 102, 103, _____, 105, _____.

b) 210, _____, 212, _____, _____, 215

c) 350, 351, _____, _____, 354, _____, 356

d) 444, _____, 446, 447, _____, _____

e) 596, _____, 598, _____, 600, 601, _____

3. Write the next five numbers in the following sequence.

a) 970, 971, 972, 973, _____, _____, _____, _____, _____.

b) 777, 778, 779, _____, _____, _____, _____, _____.

c) 640, 641, _____, _____, _____, _____, _____.

d) 888, 889, _____, _____, _____, _____, _____

e) 300, 350, 400, _____, _____, _____, _____, _____

4. Write these numbers from the smallest to the largest.

932 427 16 4 23 271

5. **Write these numbers from the largest to the smallest.**

402 204 871 13 112 316 9

6. **Circle the smallest number in each of the following.**

a)	**110**	**42**	**250**	**12**	**300**
b)	**567**	**704**	**648**	**900**	**130**
c)	**305**	**478**	**500**	**220**	**700**
d)	**352**	**147**	**526**	**190**	**999**
e)	**905**	**840**	**492**	**570**	**955**

7. **Which one is greater?**

a) **150 or 900**

b) **915 or 205**

c) **500 or 100**

d) **400 or 660**

e) **250 or 70**

f) **325 or 700**

1.11: Comparing numbers

Activity 1: **Materials: Plates of different sizes beans, marbles, small stones, Maize etc**

Instructions: Work in groups.

1. **Lay out two plates of different sizes.**
2. **Pour in the beans, beads, marbles, small pebbles, or maize into the plates.**

a) **Which holds more?**

b) **Which hold less?**

c) **How are you able to tell which holds more and which holds less**

d) **The following numbers have been arranged from the smallest to the largest. Read them out loud.**

a. **3, 4, 5, 6, 7, 8**

b. **5, 8, 13, 17, 21, 24**

c. **11, 15, 18, 20, 30**

d. **40, 70, 90, 120, 150**

Remember:

Ascending order is the same as increasing order and descending order is the same as decreasing order.

Study the following examples in pairs.

Example 1:

Arrange the following numbers in ascending order:

548, 351, 411, 269

Solution

First compare the digits in the hundred place.

In 548, the place value of 5 is 500

In 351, the place value of 3 is 300

In 411, the place value of 4 is 400

In 269, the place value of 2 is 200

The ascending order is: 269, 351, 411, 548.

Example 2:

Arrange the following numbers in descending order:

374, 356, 329, 381

Solution

First compare the digits in the hundred place.

Since all the digits have 3 in the hundred place, compare the digits in the tens place.

In 374, the place value of 7 is 70

In 356, the place value of 5 is 50

In 329, the place value of 2 is 20

In 381, the place value of 8 is 80

Remember: First compare the digits at hundred place, the tens place and then the ones.

Activiy 2:

On a manila paper, arrange the following numbers from the smallest to the largest (ascending order). Work in pairs.

a. 187, 209, 712, 28, 124, 110

b. 3, 4, 13, 17, 6, 20

c. 40, 50, 20, 30, 10, 60

d. 98, 14, 21, 39, 7, 24

e. 40, 61, 25, 79, 31, 14, 2

f. 14, 21, 28, 7, 42, 35, 84

g. 903, 6114, 532, 9001

h. 7303, 774, 894, 2001

Pin your work on the board for the rest of the class to see.

Tell another pair how you have checked that your answers are correct.

Activityy 3

On a manila paper, arrange the following numbers in descending order (largest to the smallest). Work in groups.

a. 7, 4, 9, 10, 6, 15, 20

b. 2, 4, 12, 8, 16 , 20, 18, 6

c. 15, 96, 42, 13, 40, 3, 16

d. 28, 2, 21, 90, 9

e. 305, 315, 503, 123, 132

f. 901, 109, 209, 991,

g. 910, 190, 211, 112, 121

1.11: Comparing simple equivalent fractions

a) Fractions:

10÷5 .....

14÷2 .....

25÷5 .....

24÷3 .....

20÷5 .....

20÷4 .....

Choose from (5, 4, 4, 5, 8, 7, 2) to fill the spaces above.

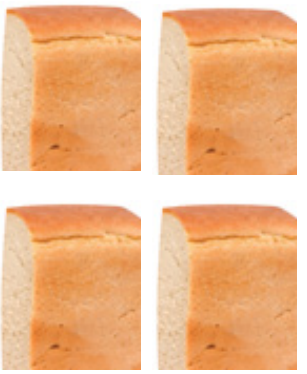
Words problems. Work in groups.

1. A mother shared 20 oranges equally among her 4 children. How many did each get?
2. The headmaster shared 80 pencils among 8 classes. How many pencils did each class get?
3. A teacher shared 20 pounds among 5 pupils, how many pounds did each pupil get?
4. Carol bought 4 notebooks for 80 Sudanese pounds. What was the cost of each notebook?
5. Share 24 oranges equally among 6 children. How many does each get?
6. Divide 20 mangoes among 4 children. How many does each get?
7. David went to a day care near his house. He had 50 sweets and the day care has 10 children. How many sweets did each child get?
8. Our teacher has 100 pencils which are to be shared among 20 pupils. How many pencils will each pupil get?

What is a fraction?

A fraction means a part of a whole. It shows one or more parts out of many equal parts.

Activity 1 Deng ordered a loaf of bread for himself

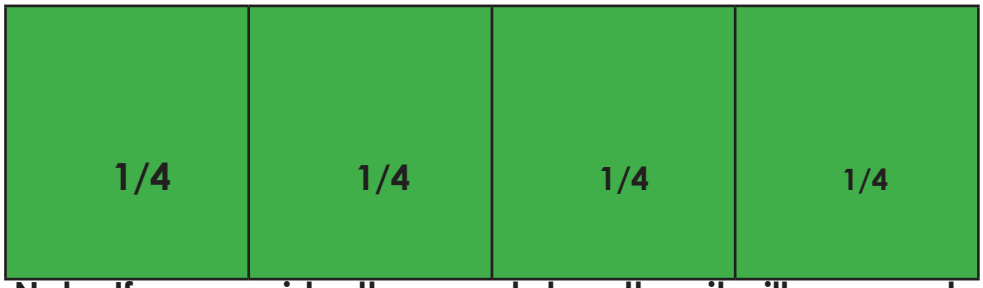
What if they get to four people?		Each part is called one-fourth. It is denoted by 1/4.

Aban had a loaf of bread which she divided into 3 equal pieces, one for herself and one each for Asha and Halima. But Halima insisted on taking two pieces. Halima, therefore got 2 out 3 equal parts, which is expressed as two-thirds, or 2/3 in the language of fractions

Activity 2

1. Take a rectangular sheet of paper. Fold it into two parts from the centre by making a crease. The crease divides the sheet of paper into two equal parts. Each part is called one-half of the whole.

2. Fold the sheet into four equal parts, by first folding it into two equal parts and then folding each half again into two equal parts. Each part is called one-fourth or a quarter of the whole.



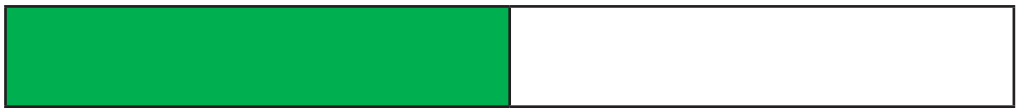
Note: If we consider three parts together, it will represent three-fourth of the whole 3/4.Two one-fourth combined together equal a half.

Take another sheet and fold it into three equal parts.

Each part is called one-third and is expressed as 1/3 (read as one over three).

Halves and Quarters of a Whole Object

Look at the rectangular strips given below. The fraction representing the coloured part is given below each of them.



1/2

2/2

1/4

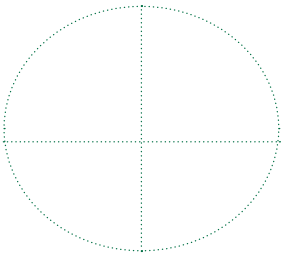
2/4

3/4

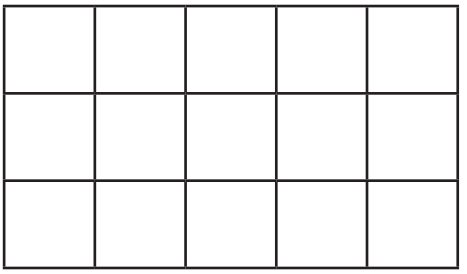
4/4

Activity 3

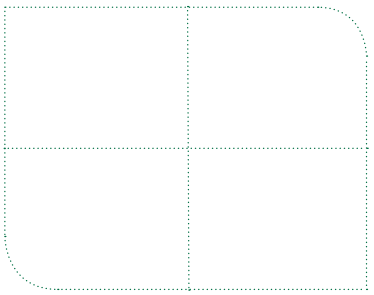
Copy and colour each of the following shapes given to show the fraction.



2/4



9/15



3/4

b) Equivalent fractions

A divisor that goes into a number and divides a number in an exact number of times is called a factor.

Example; 10 ÷ 3 = 3 rem 1

8 ÷ 2 = 2

2 is a factor or divisor and 3 is the divisor of 10

1.7 Comparing simple equivalent fractions

In pairs, make circular paper cut-out, fold and cut it to get two halves.

In pairs, practice making halves using rectangular paper.

Draw a line to divide the shapes into two and colour one half.

In pairs, practice making halves using lemons or oranges.

Look at the figures below. The fraction representing the coloured part is given besides each of them.

1/2 1/2

1/4 1/4 1/4 1/4

1/6 1/6 1/6 1/6 1/6 1/6

1/8 1/8 1/8 1/8 1/8 1/8 1/8 1/8

1/10 1/10 1/10 1/10 1/10 1/10 1/10 1/10 1/10 1/10

What do you observe? Tell your partner using mathematical language.

Since fractions 1/2,1/4,3/6,4/8,5/10 all indicate the same part of the rectangle, we can say that these fractions name the same number.

Such fractions which represent the same part of an object though differing in numerals are called equivalent fractions.

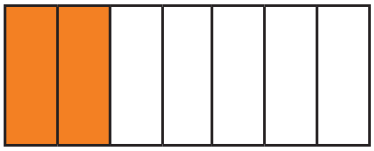
The term 'equivalent' is derived from the words 'equal' and 'value'.

Can you think of any more examples or equivalent fractions?

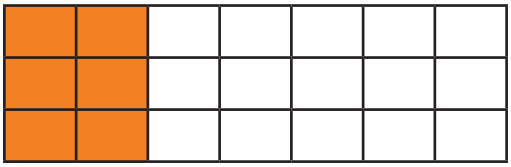
How can you prove the fractions are equivalent?

What are the equivalent fractions shown in the pictures?

1



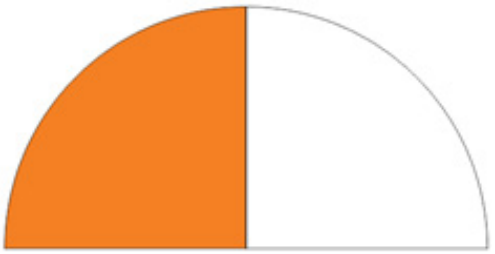
2/7

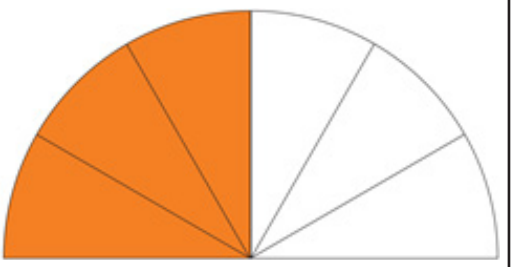


2

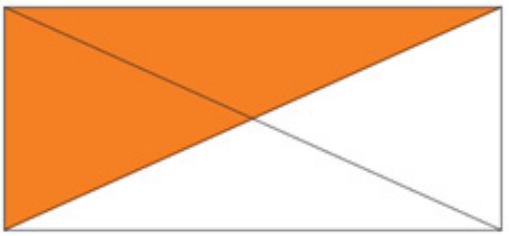
3/4

1/2

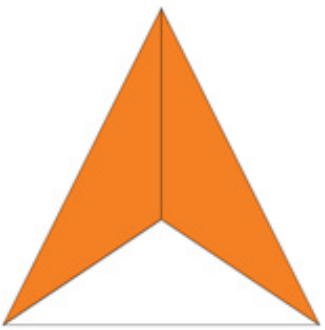


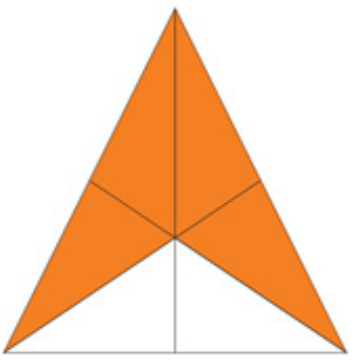


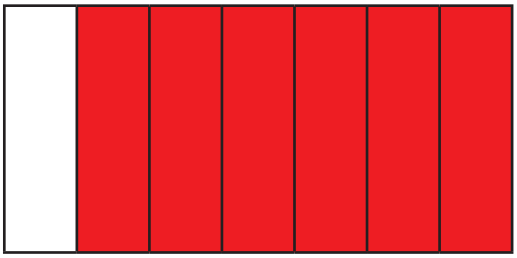
2/4



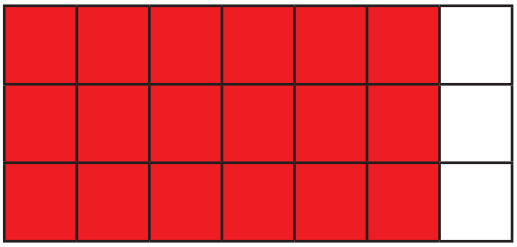
2/3

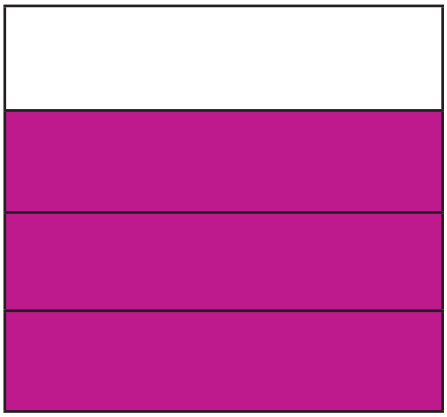




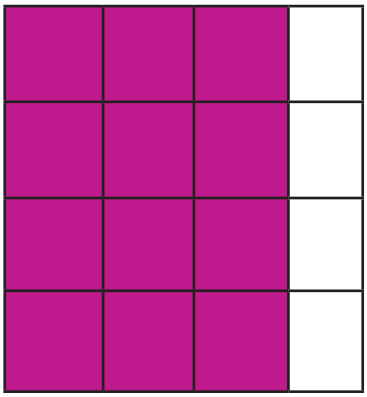


6/7





3/4

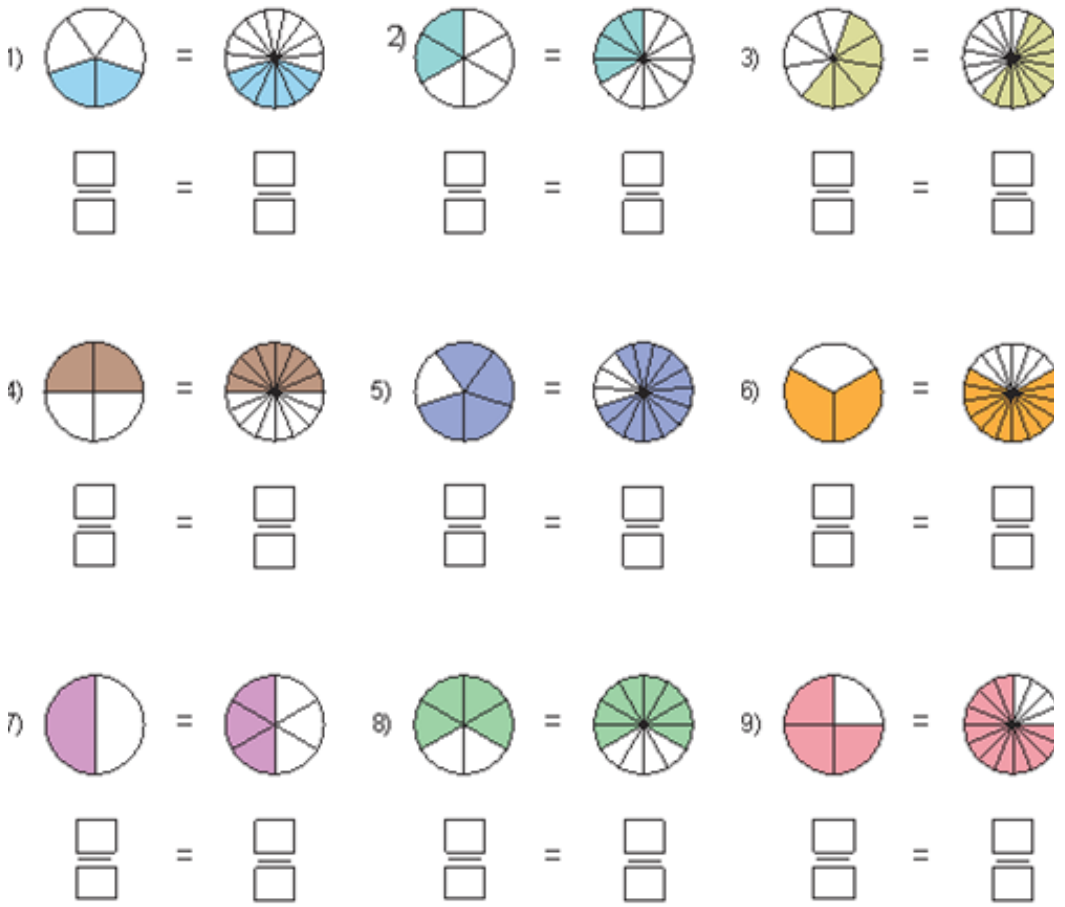


Note: the number above the bar is called numerator
The number below the bar is called denominator.
(3-numerator)/(5-denominator)

Individually

Write down the equivalent fraction using the pi-charts drawn.

Check your answers with your partner



2.1: Estimate and measurement

An estimate is a rough idea that we make without measuring.

ITEMS	ESTIM,ATE IN METres
Length of your arm	
Your Height	
Your Teachers, Height	
Length of your Desk/ Chair	
Width of your classroom	
Length of a Car	
Width of a school Playground	

2.2: Introducing centimetres and metres

The centimetre is a standard unit of length. It is helpful in measuring small distances such as length of pencils, chalk, books, etc.

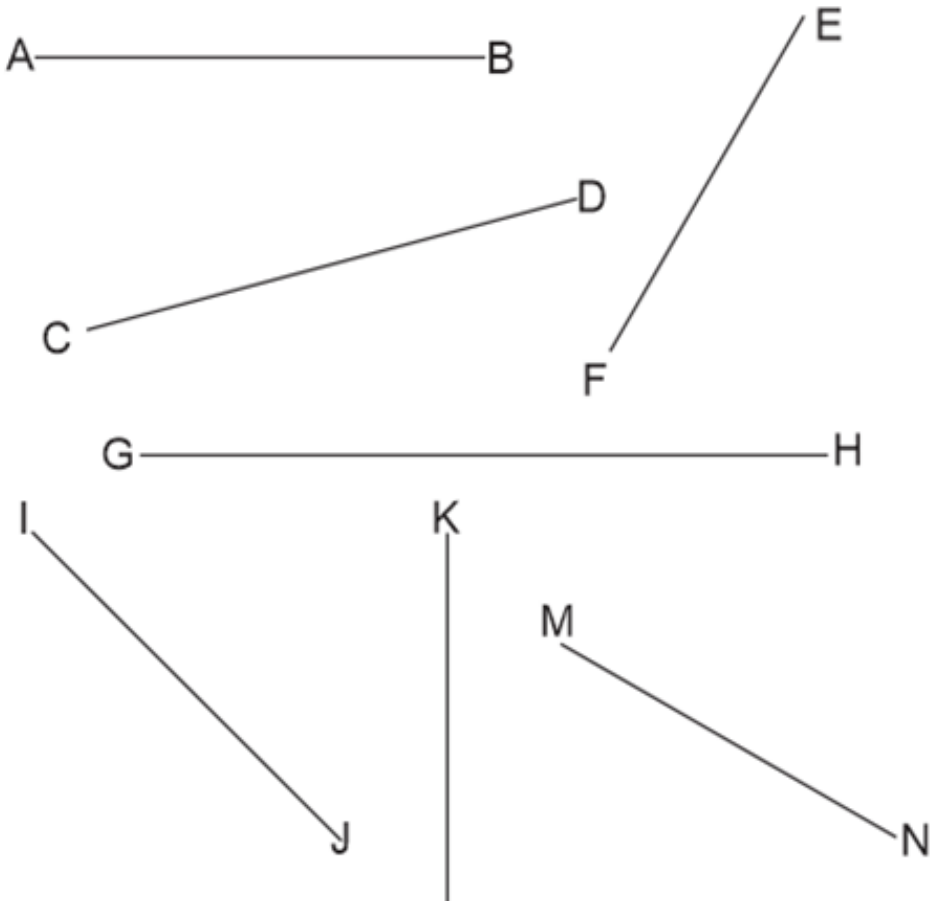
Look at this line AB: A B

This is a length of 1 centimetre.

The centimetre is written as cm.

Estimate the lines below.

Using a 15 cm ruler, measure the length of the following lines, to the nearest cm. Work in pairs.



Work in pairs. Fill in the table with the measurements from

Line	Estimate Lengh	Exact Lengh
AB		
CD		
EF		
GH		
IJ		
KL		
MN		

On a piece of manila paper, draw lines with the following measurements. Work in pairs.

1. 4 cm

2. 9 cm

3. 13 cm

4. 15 cm

5. 10 cm

6. 12 cm

7. 7 cm

8. 3 cm

9. 8 cm

10. 11 cm

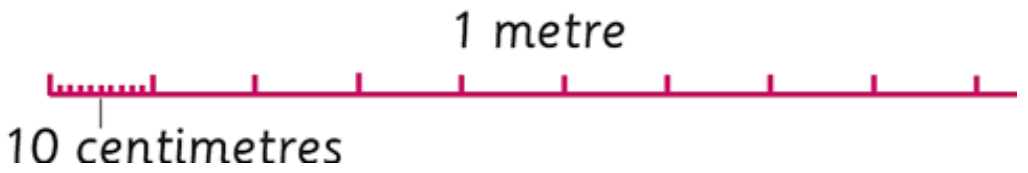
In groups, measure different objects around the classroom and the school compound. Record your measurements in a table like the one below.

OJECT	LENGTH

Share your findings with the whole class.

2.3: Measuring lengths and distances in metres

Ask learners to look at the following scale. How many centimetres are there in a metre



Class Activity

1. Use strides to measure the length and width of your school hall, school field and your classroom.

2. Record your measurements in a table.

3. Compare your estimates with the actual measurements.

	NUMBERS OF STRIDES	MEASUREMENT IN METRES
Length of school hall		
Width of school hall		
Length of football field		
Width of football field		
Length of classroom		
Width of classroom		

Estimate the lengths of the following objects. Then compare your estimates with the actual measurement using centimetre ruler or a metre rule.

Objects to be measured	Estimated	Actual measurement metre/ centimetre
Length of the door		
Length of the desk		
Length of the		
Length of the teacher's table		

2.4: Conversion of centimetres to metres and metres to centimetres

Study the following examples. Work in pairs.

1 metre=100 centimetres

1m=100cm

Example 1

Change 485 cm into metres and centimetres.

485 = 400 cm + 85 cm

= 4 m + 85 cm

= 4 m 85 cm

Example 2

Convert 7 m 35 cm into centimetres.

7 m 35 cm = 700 cm + 35 cm

= 735 cm

Look back at the measurements collected from Activity 6 and Activity 7. Convert them into either metres or centimetres.

Work in pairs.

Convert the following into metres and centimetres. How did you work this out?

1. 660 cm

2. 258 cm

3. 850 cm

4. 329 cm

5. 206 cm

6. 484 cm

7. 104 cm

8. 514 cm

9. 701 cm

10. 906 cm

In pairs, change the following into centimetres.

1. 2 m 35 cm

2. 3 m 58 cm

3. 4 m 45 cm

4. 5 m 84 cm

5. 8 m 24 cm

6. 6 m 71 cm

7. 9 m 86 cm

8. 26 m 8 cm

9. 8 m 24 cm

10. 20 m 31 cm

2.5: Addition and Subtraction involving metres and centimetres

Adding metres and centimetres

In pairs, study the following examples carefully.

Example 1

Add 60 cm and 60 cm

60 cm + 60 cm
= 60 cm + 40 cm + 20 cm
= 100 cm + 20 cm
= 1 m 20 cm

Example 2

Add 2 m 36 cm and 1 m 36 cm

	2 m	**36 cm**
+	**1 m**	**36 cm**
	3 m	**72 cm**

Example 3

Add 4 m 76 cm and 3 m 34 cm.

	4 m	**76 cm**
+	**3 m**	**24 cm**
	8 m	**10cm**

Note:
76 cm + 34 cm
= 100 cm + 10 cm
= 1 m 10 cm

In pairs, add the following:

1. 50 cm + 50 cm
2. 36 cm + 74 cm
3. 75 cm + 43 cm
4. 48 cm + 45 cm
5. 52 cm + 84 cm

In pairs, add the following:

1. 6 m 28 cm
   + 3 m 44 cm

2. 7 m 60 cm
   + 2 m 18 cm

3. 7 m 48 cm
   + 1 m 26 cm

4. 6 m 38 cm
   + 2 m 28 cm

5. 5 m 29 cm
   + 4 m 30 cm

In pairs, study the following examples.

Example 1

Subtract 5 m 28 cm from 9 m 48 cm.

	9m	48 cm
-	5 m	28 cm
	4 m	20 cm

Example 2

Subtract 5 m 63 cm from 7 m 54 cm.

	7 m	54 cm
-	5 m	63 cm
	1 m	92 cm

In groups, subtract the following.

1.

	8 m	60 cm
-	4 m	50 cm

2.

	3 m	65 cm
-	2 m	57 cm

3.

	8 m	65 cm
-	2 m	45 cm

4.

	6 m	38 cm
-	3 m	16 cm

5.

	5 m	27 cm
-	3 m	18 cm

6.

	2 m	86 cm
-	1 m	99 cm

In groups, solve the following problems. Explain how you arrive at your answers. Show your working out.

1. A stick of 3 m 45 cm long is joined to another. The total length of the sticks is 5 m 85 cm. What is the length of the second stick?

2. A table 3 m 25 cm long is joined to another 2 m 75 cm long. What is the total length of the new table?

3. A woman sold 25 m 70 cm of ribbon on Monday and 35 m 20 cm on Tuesday. How much ribbon did she sell altogether?

4. What is the distance from Anne's house to school through the shopping centre?

5. Mary can go to school through two ways: Ali's house and through the shopping centre. Which is the shortest and by how many metres.

6. Othow is 168cm tall. His sister is 132 cm. How short is the sister?

7. The length of a barbed wire all round a homestead and the gate is 20 m. The length of the gate is 2 m. What is the length of the fence?

8. A pipe 12 m 45 cm long was cut off from another pipe 20 m 56 cm long. How much pipe is left?

2.6: Capacity

Capacity is the amount of liquid which a container can hold.

In pairs, name some liquids that are found at home and in school.

The standard unit of measurement of capacity is the litre. Litre is written as 'l' in short-form.

In groups, carry out the following:

1. Use a graduated litre bottle and fill it with water.

2. Collect some containers of different shapes and sizes.

3. Use your litre bottle to measure the capacities of these containers.

4. Record your results.

5. Present your findings to the whole class.

How to prepare a graduated cylinder

Work in groups.

Take a large glass or plastic jar and paste a strip of pare on it.

Using a litre jug, fill the jar completely with water.

Mark the height of the water level on the paper.

Now divide the height of the 1 litre level into halves and quarters.

Mark the 1/4 litre, 1/2 litre and 3/4 litre levels on the strip of papers.

Find out how many jugs of water you need to fill the measuring jar to each of the marked levels.

1 litre = 2 half litres

½ litres + ½ litres = 1 litre

4 quarters litres = 1 litre

1/4+1/4+1/4+1/4=1

Addition of litres

Examples

20 half litres + 30 half litres = 50 half litres

30 l + 15 l = 45l

250 l + 50 l = 300 l

Individually, complete this exercise in your book.

3 litres +2 litres = _____ litres.

4 litres + 5 litres = _____ litres.

I2 litres + II litres = _____ litres.

I0 litres + 20 litres = _____ litres.

2I litres + I2 litres = _____ litres.

I2 litres + _____ litres = 25 litres.

40 litres + _____ litres = 60 litres.

25 litres + _____ litres = 75 litres.

I6 litres + _____ litres = 30 litres.

Irene bought 6l of paraffin. She put 2l in one of her lamps and 3l in another. How many litres are left?

Subtract. Work in pairs.

a) 23 litres - 2I litres =

b) 23 litres - I8 litres =

c) 43 litres - 40 litres =

d) 27 litres - II litres =

e) 30 litres -20 litres =

f) 25 litres - I2 litres =

g) 27 litres - I0 litres =

h) I4 litres - I2 litres =

Conversion of Units

Smaller divisions of litre are decilitres, centilitres and millilitres.

Study the following table.

Units of measurement

10 millilitres (ml) = 1 centilitre (cl)

10 centilitres (cl) = 1 decilitre (dl)

10 decilitres (dl) = 1 litre

When converting from ml to l	**÷ by 1000**
When converting from l to ml	**x by 1000**

Activity

Calculate and fill in the missing numbers

MILLILITRES	LITRES
2,000 ml	
	7.2 L
4,900 ml	
	9.4 L
10,000 ml	

When converting from cl to L	÷ by 100
When converting from L to cl	x by 100

Calculate and fill in the missing numbers

Centilitres	LITRES
340cl	
	3 L
550cl	
	7.4 L
800cl	

When converting from cl to L	**÷ by 100**
When converting from L to cl	**x by 100**

Convert the following from centilitres (cl) to litres (l).

I need to multiply by _____

1.00L _____cl

3.5L _____cl

4.9l _____cl

4Litres or 330cl. Which is bigger and why? Explain your working out.

Tell your partner what you have learnt about converting ml to l and cl to l.

2.7: *Weight*

Weight refers to how heavy or light an object is. The kilogram (kg) is the standard unit of weight.

The kilogram (kg) is used as a unit when weighing heavy objects. For smaller or litres objects, we use the unit gram (g).

The weight of I litre of water is 1 kilogram.

There are 100 grams in 1 kilogram.

1 kg = 1000 g

1/2 kg = 500 g

1/4 kg = 250 g

We use grams to weigh smaller or little/ light objects or things. There are 1000g in 1 kg

Look at the following pictures. What is happening? Talk in groups.

Estimate the weight of the following.

1. Stones of different sizes.
2. Text books of different subjects.
3. Your own weight.

Visit a nearby market. What do the sellers use to weigh different commodities? It their method of measuring accurate? Why do you think that? With a partner, record your findings and present them to the whole class.

Addition and subtraction

Examples

4 kg + 6 kg = 10 kg

45kg + 64 kg= 109 kg

104 kg + 9 kg = 98kg – 43 kg

104	98
+ 9	-43
113	55 kg

1. **105 litres – 45 litres=**
2. **75 litres + 35 litres – 60 litres=**
3. **Kim's car used 7 litres of petrol for his home to school and then 8 litres to church. How many litres did he use altogether?**
4. **Mary bought 5 half – litres packets of milk on her way home one fell and burst how many litres of milk was she left with?**

2.8: Time

Activity 1: Name unit of Time

Look at the following pictures. What time do you think it is? Why? Talk in groups.

(ii)

Quarter past the hour and Quarter to the hour

As you already know, an hour has 60 minutes. Half of 60 is 30. Therefore, half past 3 means thirty minutes after 3 o'clock.

To get the quarter of 60 minutes, we divide 60 by 4. This gives us 15 minutes. When telling time, we use the expressions quarter past the hour or quarter to the hour. This means it is either fifteen minutes past the hour or fifteen minutes to the next hour. Therefore the minute hand is either pointing at 3 for quarter past the hour or 9 for quarter to the hour.

Make or draw clock faces using available local

materials. Work in groups.

1. Quarter past 5
2. Quarter to 8
3. Quarter past 12
4. Quarter to 2
5. Quarter to 9
6. Quarter past 7
7. Quarter to 11
8. Quarter to 4
9. Quarter past 1
10. Quarter to 3

Talk in pairs. At what time to you do the following activities.

Wake up.

Have breakfast.

(iii) Units of time

1 week = 7 days

1 day = 24 hours

1 hour = 60 minutes

Example

How many days are there in 3 weeks?

3 × 7= 21 days

How many weeks are equivalent to 63 days?

63÷ 7= 9 weeks

In pairs, work out the answers correctly.

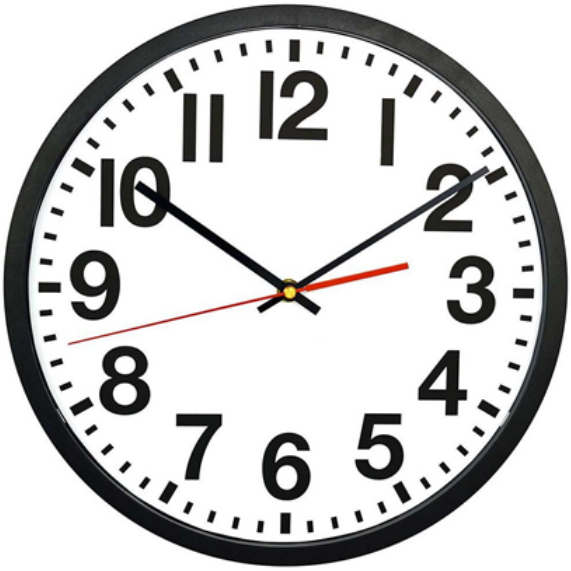
1. I stayed in a hotel for 2 weeks and 3 days. I then moved to another one for 3 weeks, how long was my stay in the two hotels?

2. In the April holiday, I spent 12 days in Nairobi, 10 days in Cape Town and another 3 days in Paris, How long was the holiday?

3. What is the time interval from 10:00am to 11:30am?

How have you worked this out?

We know that hours, minutes and seconds are the units, we use to measure the time. Work in pairs.



1. What does the long hand of a clock show?

2. What does the short hand of a clock show?

3. What does the long and thin hand of a clock which moves faster show?

4. How many seconds are there in 10 minutes?

5. How many seconds are there in half an hour?

6. How many minutes are there in three hours?

7. How many hours are there in two days?

8. How many days are there in 5 weeks?

9. How many weeks are there in two years?

10. How many months are there in one and a half years?

1 hour = 60 minutes. 60 minutes =1 hour

1 minute = 60 seconds. 60 seconds =1 minute

If 1 hour is 60 minutes, how many minutes is 3 hours? Show your working.

If you took 520 minutes to travel to your school. How many hours did it take you to get to school?

1 minute is made up of 60 seconds.

Convert into seconds: Work in groups.

1. **1 hours 24 seconds**
2. **20 minutes 45 seconds**
3. **18 minutes 28 seconds**
4. **2 hours 12 seconds**
5. **36 minutes 17 seconds**
6. **15 hours 19 seconds**

How did you arrive at your answers?

Use a.m. or p.m. Work in groups.

1. **7:35 in the morning**
2. **6:45 in the evening**
3. **2:20 midnight**
4. **4:35 in the evening**
5. **8:48 in the morning**
6. **12:50 afternoon**
7. **5:05 in the evening**
8. **11:27 at night**
9. **8:36 in the morning**
10. **9:17 at night**

What was the time before 6 hours? Work out in groups.

1. **3:20 a.m.**
2. **5:45 p.m.**
3. **9:15 a.m.**
4. **12 midnight**
5. **12 noon**

6. 2:15 p.m.

How did you arrive at your answers?

What will be the time after 4 hours? Work out in groups.

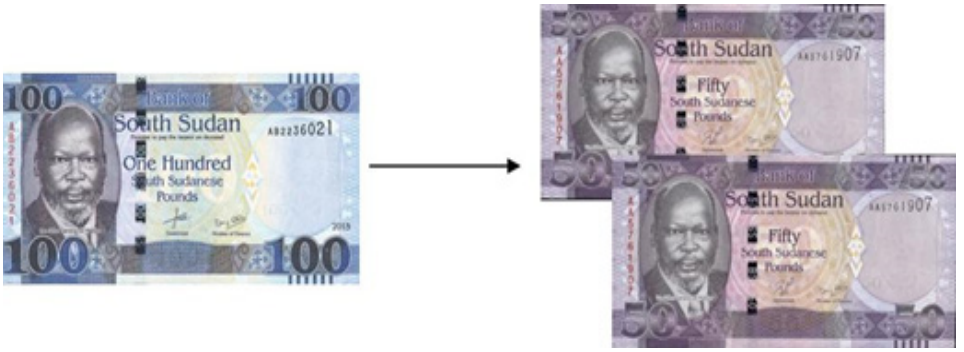
1. 5:40 a.m.
2. 8:30 p.m.
3. 1:25 a.m.
4. 5:20 a.m.
5. 3:05 p.m.
6. 2:30 p.m.

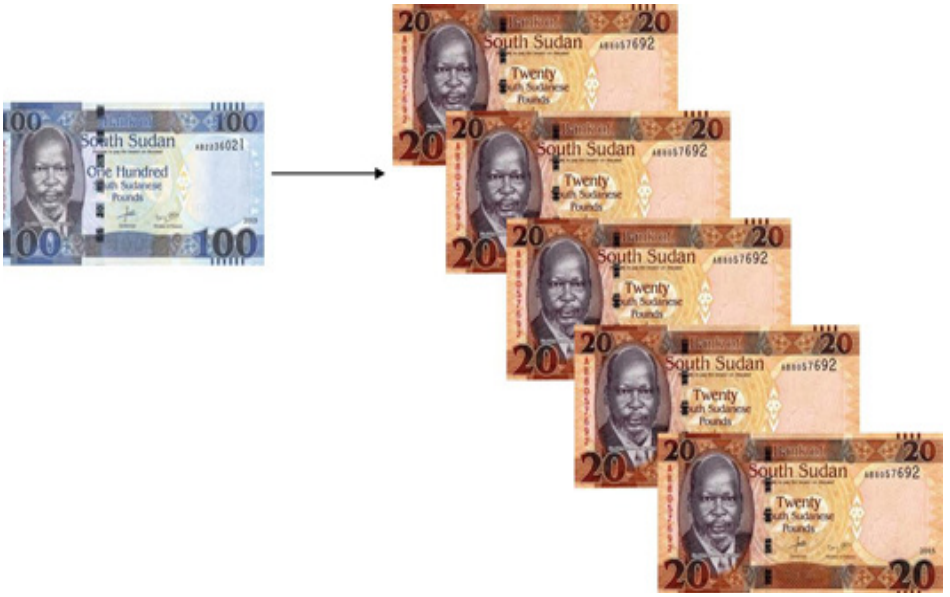
How did you arrive at your answers

2.9: Money

Activity 1: Giving Change

(i)





Bank of
South Sudan
One Hundred
South Sudanese
Pounds
100

=

Bank of
South Sudan
Fifty
South Sudanese
Pounds
50

Bank of
South Sudan
Fifty
50

=

Bank of
South Sudan
AL6777052
Five
South Sudanese
Pounds
5

Bank of
South Sudan
25
Twenty Five

Bank of
South Sudan
Fifty
50

=

Bank of
South Sudan
AL6777052
Five
South Sudanese
Pounds
5

Bank of
South Sudan
25
Twenty Five

20
South Sudan
Twenty
20

South Sudan
Ten

South Sudan
One Hundred

South Sudan
One Hundred
100

South Sudan
Fifty

In groups, visit a nearby shop. Find out the prices of the various items sold in the shop. Record your data in a table and present it to the whole class.

1. **What is the cheapest item in the shop?**
2. **What is the most expensive item in the shop?**
3. **Which item in bought the most at the shop?**
4. **How does the shopkeeper determine the price of the various items?**

Find out the prices of the various items sold in the market. Record your data in a table and present it to the whole class.

1. **What kind of items are sold at the market?**
2. **Compare the price of the same item at different stalls. Is it the same? Is there a difference? By how much?**
3. **Which item is readily available at the market?**
4. **Which item is scarce at the market? What is its price?**
5. **If you went to the market with SSP 100, how much would you be able to buy? Write down the list of the items together with their quantity and prices.**

Explain how you will work it out, show your working.

1. After buying some tickets for SSP8.00, Willie has SSP2.00 left. How much money did Willie have to begin with?

2. Bonnie gives SSP400 to Roy. If Bonnie started with SSP1600, how much money does she have left?

3. Carlos has SSP700 and Karen has SSP600. How much more does Carlos have than Karen?

4. Thomas has SSP1700 and Sandra has SSP1300.How much more does Thomas have than Sandra?

5. Donna has SSP1300 and Jack has SSP200. How much more does Donna have than Jack?

6. Susan has SSP6700 and Joshua has SSP300. How much more does Susan have than Joshua?

7. After buying some bottle caps for SSP9000, Arthur has SSP700 left. How much money did Arthur have to begin with?

8. After buying some marbles for SSP5500, Linda has SSP900 left. How much money did Linda have to begin with?

Activity 2: Shop Price List

Trouser	Box	Blanket	School Bag
SSP 650	SSP 370	SSP 460	SSP 245

School Shoes	Dress	Mattress
SSP 815	SSP 340	SSP 500

Activity 3: Work in groups.

Work in groups.

1. Mary had SSP 450. She bought one dress. How much money was she left with?

2. I had SSP 500. I bought 1 box. How much was I left with?

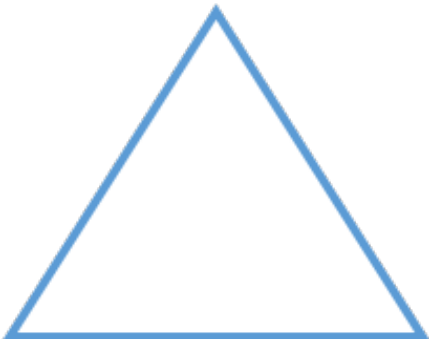
3. Kambo had SSP 950. He bought 1 school shoe. How much was left?

4. How much do you need to buy one box, one blanket and a pair of school shoes?

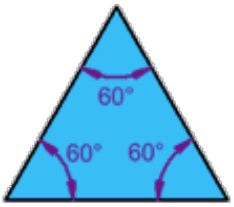
5. Mrs. Keru went to the shop with SSP 2500. She bought one mattress, one box and one bag. How much was she left with?

3.1: *Properties of triangle*

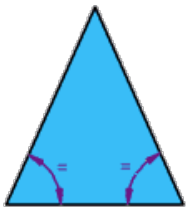
A triangle is a plane figure with three straight sides and three angles.



Types of triangles



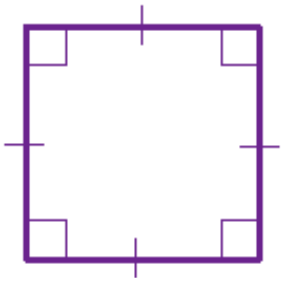
Equilateral Triangle
Three equal sides
Three equal angles, always 60°



Isosceles Triangle
Two equal sides
Two equal angles

Scalene Triangle
No equal sides
No equal angles

3.2: Properties of Square



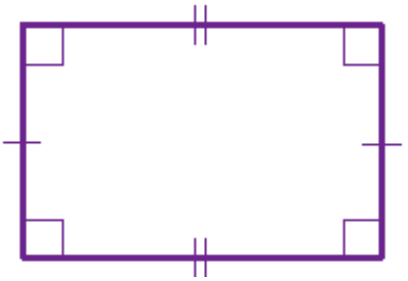
means "right angle"

show equal sides

Properties of a rectangle

Activity 1:

Study the shape. From the diagram, what properties do you observe? Talk in groups and then present to the class.

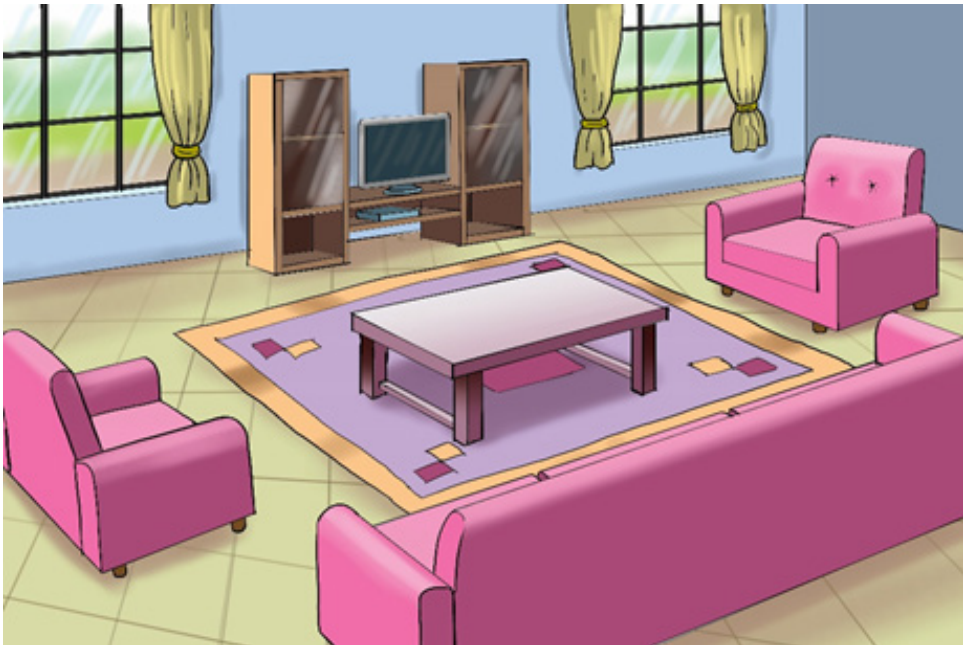


From the diagram, what properties do you observe? Talk in groups and then present to the class.

Activity 2:

Look at the pictures on the following page and count the number of shapes. How many?

a. Squares
b. Rectangles
c. Triangles
d. Circles



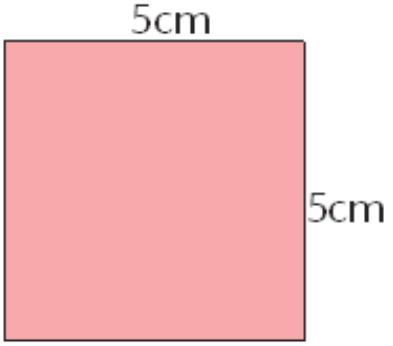
3.4: Geometric Properties

A. Square

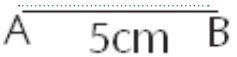
A square is a quadrilateral with four right angles and four congruent/ equal sides. It is very easy to draw.

Activity 3:

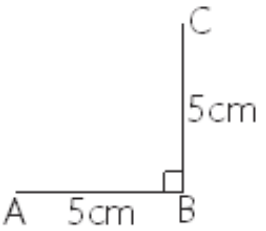
Draw a square measuring 5cm by 5cm. Follow the steps and draw in yo



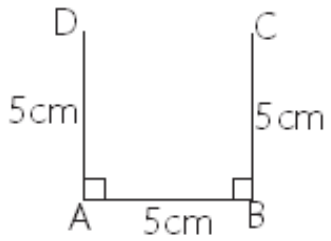
1.Draw a line using a ruler measuring 5cm, which is one side of the square. Label the line AB.



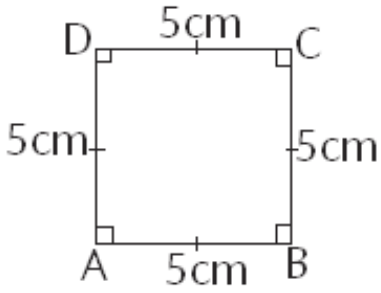
2. Considering the side drawn in the previous step as one of the arms, construct a right angle on one end of it. Label it C



Repeat the previous step on the other arm of the line.



4. Join the points C and D to make the square complete.



5. We have drawn a perfect square which is 5cm by 5cm.

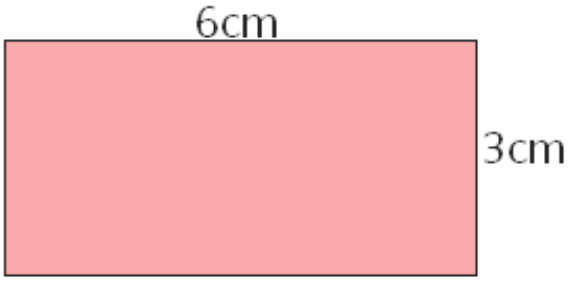
All the sides are equal and the angles are equal too.

B. Rectangle

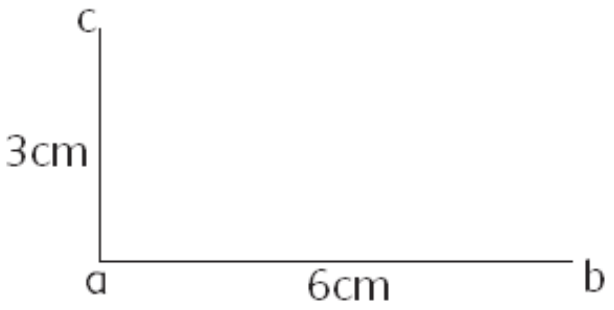
A rectangle is a plane figure with four straight sides and four right angles, especially one with unequal adjacent sides, in contrast to a square.

Activity 4:

Draw a rectangle measuring 6cm by 3cm.

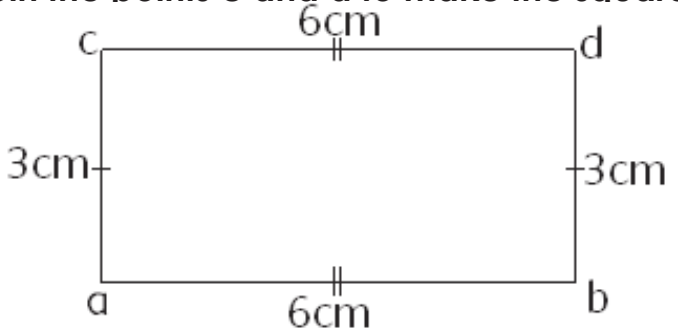


1. Draw a line using a ruler measuring 6cm, which is one side of the rectangle. Label then line ab



3. Repeat the previous step on the other side of the line. Label it d.

4. Join the points c and d to make the sauare complete.



5. We have drawn a rectangle measuring 6cm by 3cm.

6. A rectangle has 2 of its sides equal and all the angles are right angles.

7. Follow the above steps and draw a rectangle in your exercise book.

C. Triangle

A triangle is a plane figure with three straight sides and three angles.

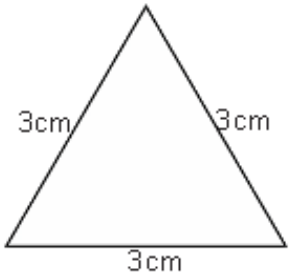
There are various types of triangles.

In this level we are going to study about:

1. Equilateral triangle.
2. Right angled triangle.
3. Isosceles triangle.
4. Scalene triangle.

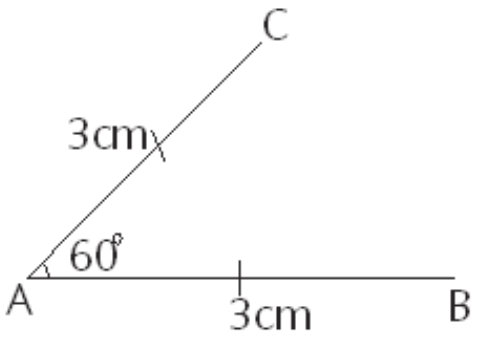
Activity 5:

Draw a triangle measuring 3cm by 3cm by 3cm.

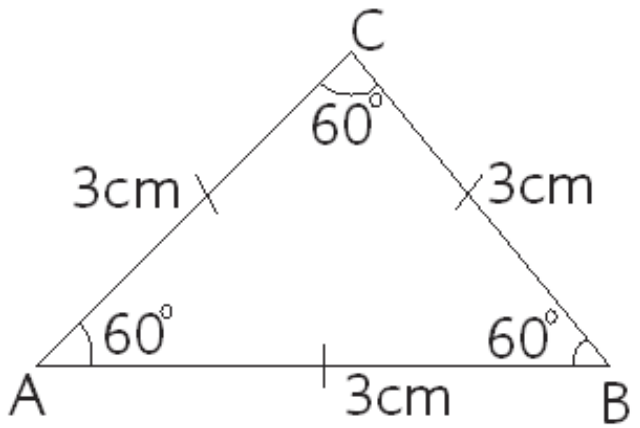


1. Lay your ruler on the paper, then trace a pencil along the straight edge. This line segment will form one side of your equilateral triangle, which means that you will need to draw two more lines of exactly the same length, each reaching toward a point at a 60° angle from the first line. Label it AB.

2. Draw another line from one of the points. Estimate an angle of 60. Label the line C.



3. From the other point B, draw another line to meet at C.



4. We have drawn an equilateral triangle with all sides equal and all angles equal.

Ativity 6:

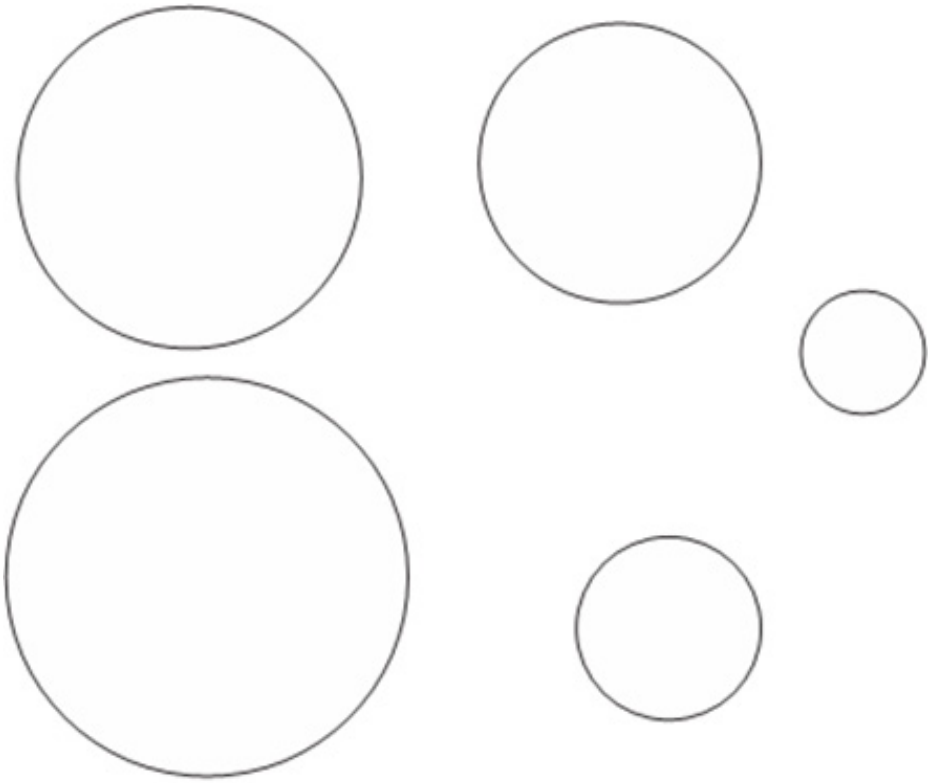
Draw the equilateral triangle in your exercise book following the above steps.

D. Circle

A circle is a round plane figure whose boundary (the circumference) consists of points of the same distance from a fixed point (the centre).

Ativity 7:

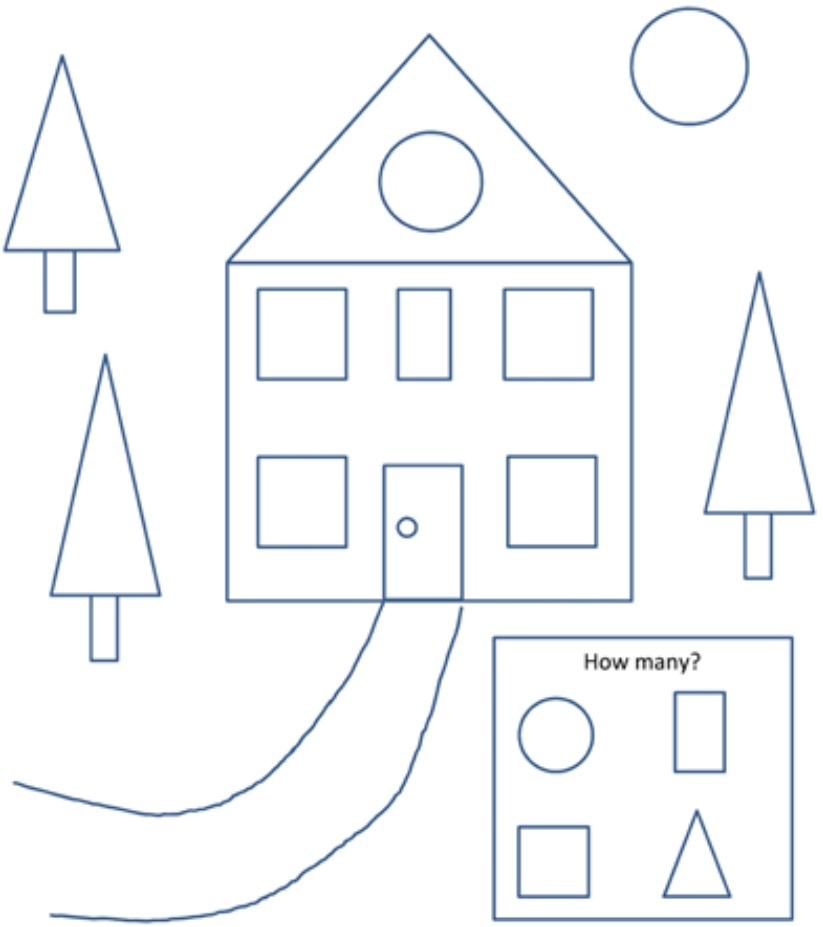
1. **Draw an accurate circle.**
2. **The teacher will provide with various round objects which you can use to draw a perfect circle.**
3. **For example, a glass of water for a bigger circle, a coin, a bottle, a cup etc.**



Activity 8:

Work in groups.

1. Count the shapes in the diagram that are the same on the following page.



3.3 Symmetry of Geometric shapes

Activity9:

Work in pairs.

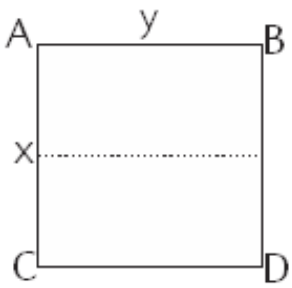
Guess my shape game

Guess who I am. I am thinking of a shape, it has 43 right angles opposite sides are equal and the perimeter is 12 cm

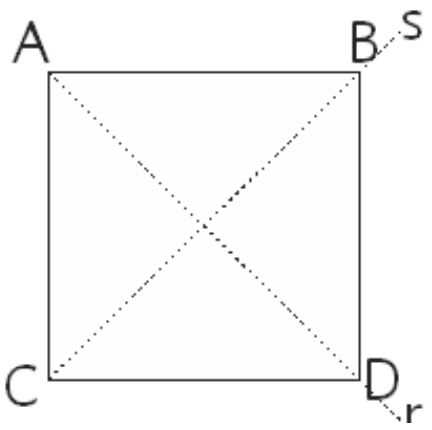
Make a fact book showing properties of a square, rectangle, triangle and a circle.

(i) Square

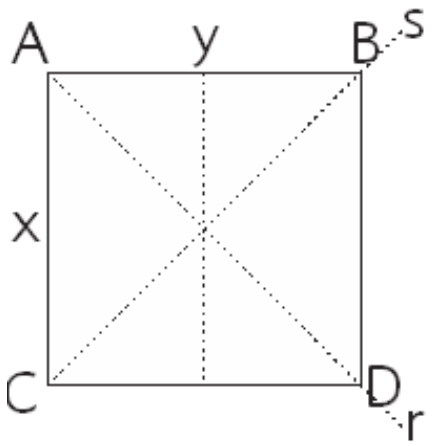
1. **Make a paper cut out of a square ABCD.**



2. **Fold it so that corner B fits to corner A and D to C.**
3. **Press the fold to show the dotted line x and y.**
4s. **Open the cut out and fold again so that A fits to D and C to B. This will give you the dotted lines s and r**



Observation: A square has 4 lines of symmetry.

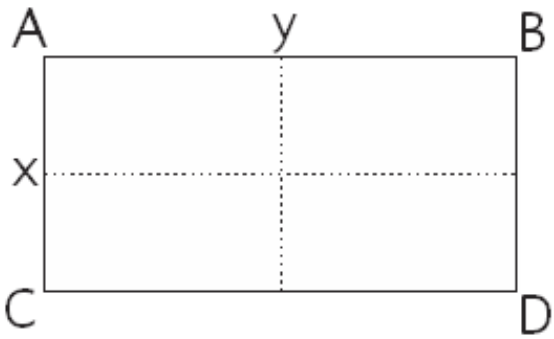


Activity 10:

Work in pairs.

(ii) Rectangle

1. Make a paper cut out of a rectangle ABCD.



2. Fold it so that corner B fits to corner A and D to C.

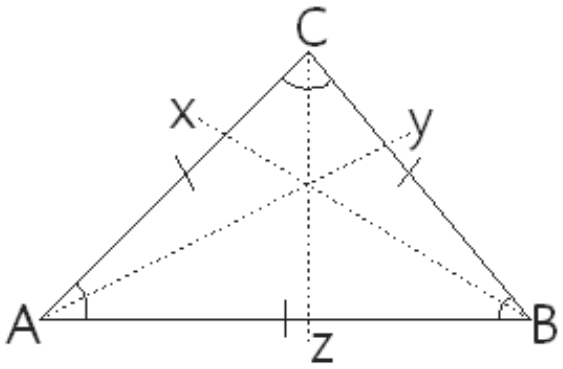
3. Press the fold to show the dotted line x and y.

Observation: A rectangle has two limes of symmetry.

(iii) Triangle

Activity 11: Work in pairs.

1. Make a paper cut out of an equilateral triangle ABC.



Fold it so that corner B fits to corner A and C is the tip top.

2. Press the fold to show the dotted line z.

3. Fold it again, so that C lies at the centre of the line AB.

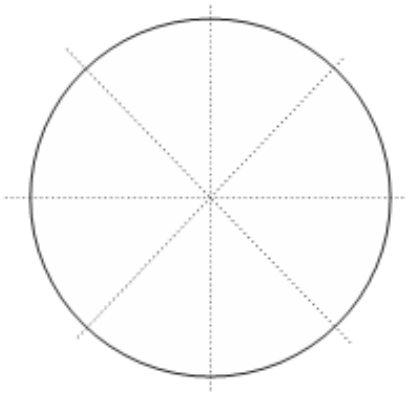
With the help of your teacher work on the other types of triangles, considering that:

1. **An isosceles triangle has 1 line of symmetry.**
2. **A right angled triangle has no line of symmetry.**
3. **A scalene triangle has no**

(iv) Circle

Activity 12: Work in pairs.

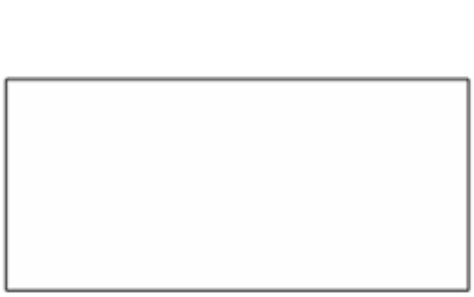
1. **Make a circular cut out.**
2. **Fold into half.**
3. **Fold into as many halves as possible.**

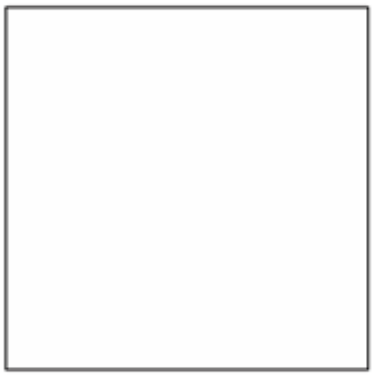


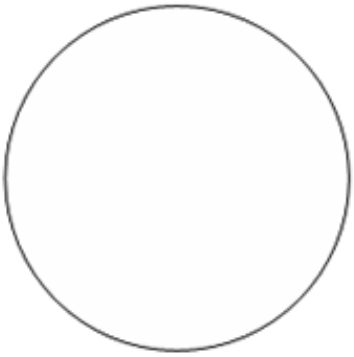
Observation: All the diameters of a circle are lines of symmetry.

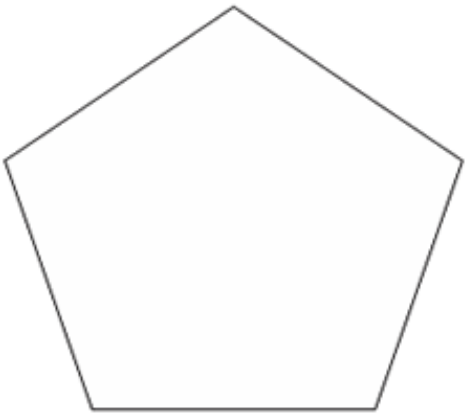
Activity 13: **Work in pairs.**

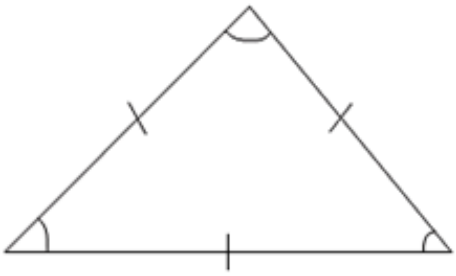
Draw the lines of symmetry in the following shapes.

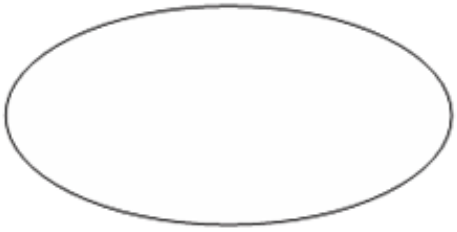












4.1: In equalities

An inequality is the relation between two expressions that are not equal, employing a sign such as "not equal to," > "greater than," or < "less than."

Symbol	Words	Example
>	Greater than	x > 2
<	Less than	x < 4
≥	Greater than or equal to	x ≥ 10
≤	Less than or equal to	x ≤ 3

Greater than means that the starting number is bigger in value than the other number.

Example: 50 > 15

This means that 50 is greater than 15.

Less than means that the starting number is smaller in value than the other number.

Example: 15 < 50

This means 15 is less than 50.

Activity 1

In pairs, choose numbers and place them correctly in the grid below.

			<			

			>			

1. What number do you have on your right?
2. How did you decide to put your number?

Activity 2 : Individually

1. Copy and write the correct inequality sign.

a) 3 ___ 2
b) 4 ___ 7
c) 30 ___ 40
d) 60 ___ 110
e) 72 ___ 40
f) 30 ___ 30
g) 45 ___ 20
h) 61 ___ 72
i) 31 ___ 20
j) 24 ___ 17

Activity 3

True or false?

$4 > 2 + 1$
$2 + 3 < 4$
$3 + 5 < 6$
$1 + 3 > 2$
$6 > 5 + 4$

Activity 4

1. Indicate whether true or false

a) 2 + 2<3+3

b) 5−2<7+8

c) 8−6>3+7

d) 2+6<4+6

2. Determine which number is greater than the other.

1. 100 and 22

2. 569 and 920

3. 17 and 77

4. 718 and 19

5. 28 and 16

6. 1000 and 918

Explain how you did it.

5.1: Pictographs

5.1 Pictographs

When some information is represented by using picture symbols, we say that the picture has been represented pictorially.

Pictorial representation is a method of representing information in a visual form.

The table below show the number of leaners in a class on different days.

Monday	Tuesday	Wednesday	Thusday	Friday
20	30	10	30	10

The above information can be shown by a pictograph:

Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

One represents 10 learners

Activity 1

The number of loaves of bread baked by a baker in 6 days is depicted below by a pictograph.

Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	

How many loaves of bread are baked each day? Discuss with your partner.

Activity 2

Given below is a pictogram showing mangoes sold by a fruit vendor in a week. Let represent 10 mangoes

Suday	
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

Saturday	

In groups, answer the following questions using the pictogram above.

1. How many mangoes were sold on each day?
2. On which day there was a maximum number of mangoes sold?

Activity 3

The pictogram below shows how many shirts sold in a week. In pairs, study the pictogram and complete the following information. Work in groups.

Monday	
Tuesday	
Wednesday	
Thursday	

Friday	
Saturday	

= 5 shirts

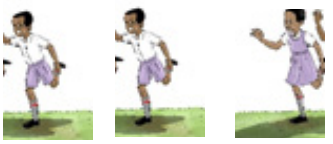
1. On which day of the week 10 shirts were sold?
2. How many shirts were sold on Tuesday?
3. Which was the day that the least shirts were sold?
4. What is the difference between the no of shirts sold on Tuesday and on Friday?

Activity 4

Work in groups.

Number of boys and girls in a class.

10 BOYS

Primary 1		
Primary 2		
Primary 3		

Use the pictograph above to answer the questions that follow.

1. How many learners are in primary 1?
2. How many girls are in primary 1?
3. How many boys are in primary 2?
4. How many girls are in primary 2?
5. What is the total number of girls in the school?
6. How many girls are in primary 3?
7. How many boys are in primary 1, 2 and 3?
8. How many girls are in primary 1, 2 and 3?

5.2 Block graphs

The information in a pictograph can be represented in a block graph.

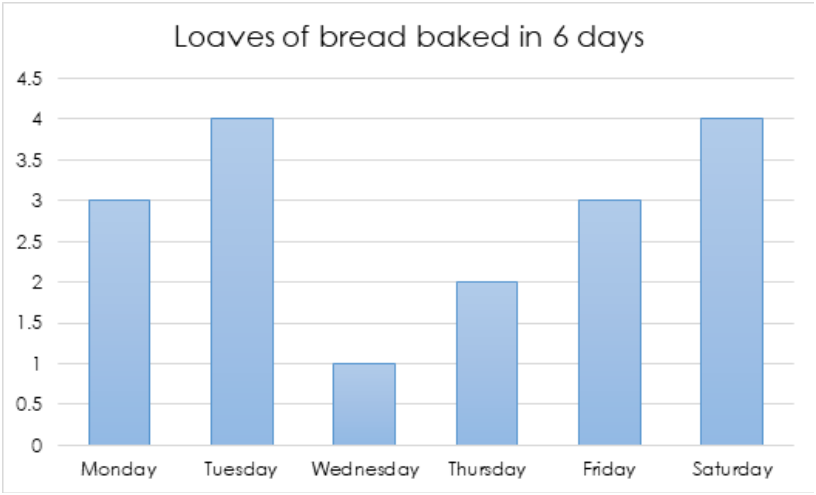
Activity 5: Class activity

Let us revisit the information provided in Activity 1.

The number of loaves of bread baked by a baker in 6 days is depicted below by a pictograph.

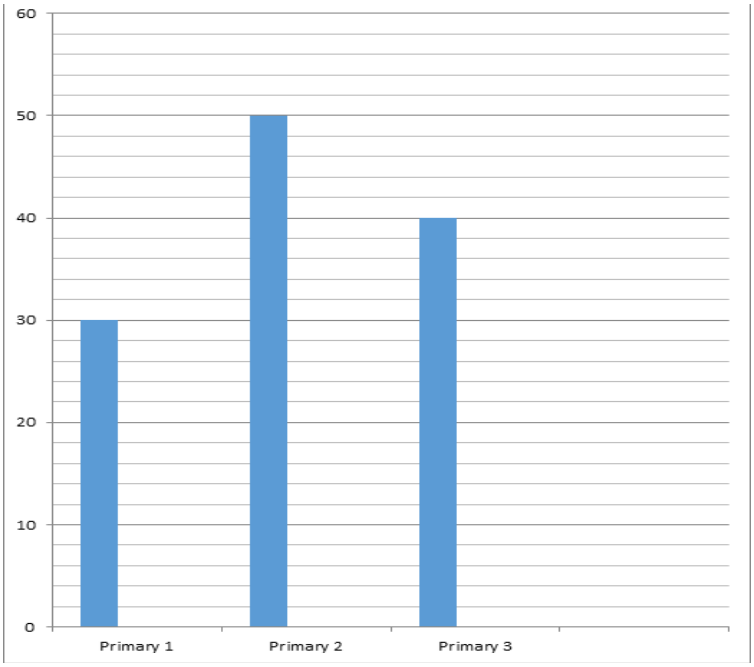
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	

This can be represented in a block graph as follows. What do you notice about the graph? Talk with your partner.



Activity 6

Graph below shows the number of pupils in a class. Together with your partner, study it and answer the questions that follow.



a) How many pupils are there in primary 1? _____

b) How many pupils are there in primary 2? _____

c) How many pupils are there in primary 3? _____

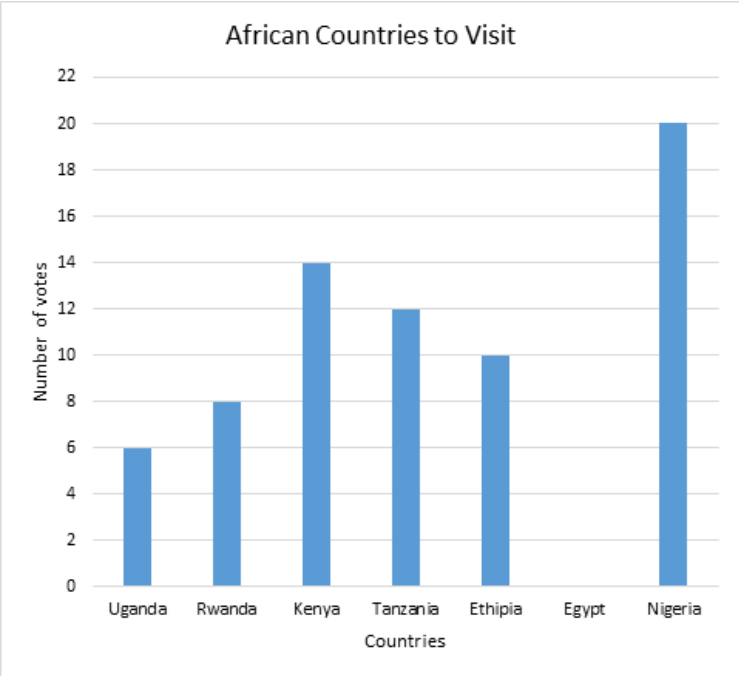
Activity 7

Work in groups.

Each child in Primary 3 selects two African countries they would like to visit.

Country	Votes
Uganda	6
Rwanda	8
Kenya	
Tanzania	12
Ethiopia	10
Egypt	16
Nigeria	

This information is represented in the block graph below.



1. Fill in the missing data in the table for Kenya and Nigeria.

2. Draw a bar to show how many votes Egypt got.

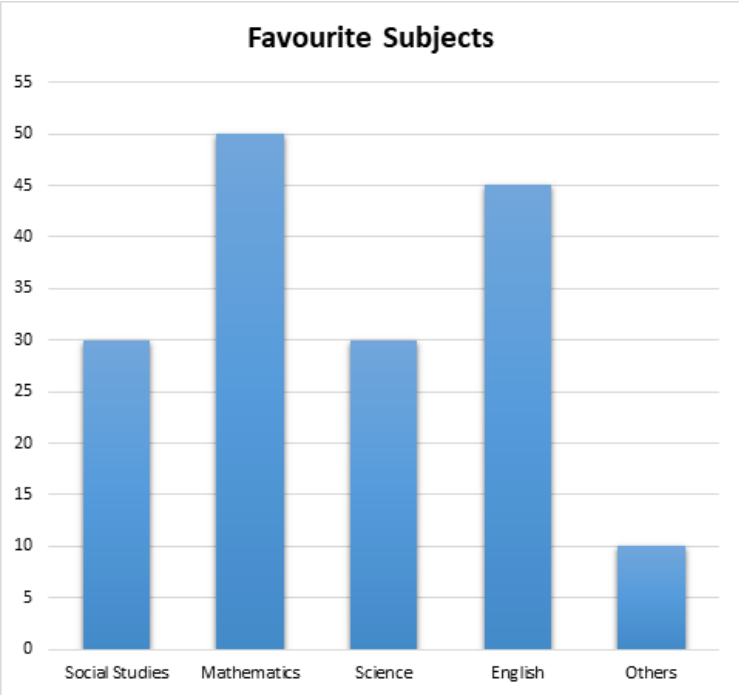
3. Which was the most popular country to visit?

4. How many more votes did Tanzania get than Rwanda?

5. How many more votes did Ethiopia get than Rwanda?

Activity 8

Mrs Ogalla, a teacher, recorded the favourite subjects of her students in the block graph below. Use the graph to answer to answer the questions. Work in pairs.



1. **Which subject is the second most popular?**
2. **Which subject is less popular?**
3. **Which subject is a favourite for 50 students?**
4. **Which subjects have the same number of votes?**
5. **What unit of scale is used to display the popularity of subjects among the students?**

Activity 9

In groups, collect and count classroom objects such

as books, dusters, erasers, pencils etc. Count the items, record the data and create a block graph.

Activity 10: Work in pairs

Take a survey among your friends and family on their favourite colour. Display your findings in a block paragraph.

Activity 11: Work in pairs

Othow took a survey about the pets kept by his friends and recorded the data. Using the information, write the title of the block graph, label the axis, make appropriate scale and graph the data?

cat	
dog	8
goat	14
rabbit	12
	4