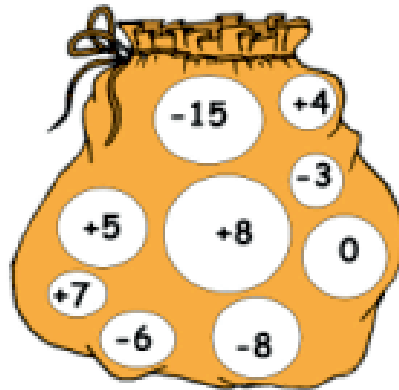


Contents – Numbers

In this section you will cover the following language and concepts:



<p>1. Whole numbers</p>	<p>Vocabulary: numeral; whole numbers in words and numerals up to 1000 Structures: What number is this?; What number's that?; It's...</p>
<p>2. Types of numbers</p>	<p>Vocabulary: even; odd; numeral; in ascending/descending order; connect; go together; stand up; sit down; turn around Structures: Is this an odd/even number?; It's odd/even; Which of these is ...?;</p>
<p>3. Addition and subtraction</p>	<p>Vocabulary: Subtraction/subtract; take away; minus; the difference between; addition/add; total of; sum of, plus; equals; is equal to; numbers ending in 'teen' and 'ty' Structures: X plus Y equals... ; X minus Y equals... ; What is the total/sum of ...?; What does X plus Y equal?; What's the difference between... and...?; What does X minus/subtract Y equal?</p>
<p>4. Multiplication and division</p>	<p>Vocabulary: times; multiplied by; product; quotient; divide, goes into; equals Structures: What is the product/quotient of X and Y?; The product/quotient of X and Y is ...; three fours are... ; What is X times/divided by Y?; X multiplied by/divided by Y equals/is ...</p>
<p>5. Fractions</p>	<p>Vocabulary: a third; two thirds; a quarter; three quarters; a half; a sixth; two sixths; all fractions in numbers and words Structures: What fraction is shaded/unshaded?; What fraction is this?</p>
<p>6. Decimals</p>	<p>Vocabulary: decimal point; decimal place; digit; zero; point; ones/units; tenths; hundredths; thousandths; and (as a substitute for the decimal point) Structures: What's the place value of...; Round off to X decimal places</p>
<p>7. Percentages</p>	<p>Vocabulary: percentage/percent; per; express; Structures: What is X percent of Y? Find the percentage of...;</p>

<p>8. Converting between fractions, decimals and percentages</p>	<p>Vocabulary: Percentage/percent; per, express; decimal; fraction</p> <p>Structures: What is X percent of Y?; Find the percentage of...; Express X as a Y; X as a Y is...</p>
<p>9. Integers</p>	<p>Vocabulary: positive integers; negative integers; above/below zero; freezing; boiling; minus; degrees centigrade; temperature; thermometer; profit; loss; higher; lower; more than; less than.</p> <p>Structures: Is this a negative/positive number?; It's a positive/negative number; What is the temperature?; Is the temperature above/below freezing/boiling?; Which temperature is colder/hotter?</p>
<p>10. Number patterns</p>	<p>Vocabulary: Odd; even; multiple of; ascending; descending; divisible by; fraction; percentage; decimal; rule; term</p> <p>Structures: What's the rule?; What's the next term?; What is ('s) the next number in the sequence?</p>

Lesson 1: Whole numbers

Activity 1



940	453	19	814	646
680	334	9	123	124
567	212	718	57	199
0	17	870	473	568

Activity 2



Complete the table.

Words	Numeral	Numeral	Words
One hundred and thirteen		523	
Seven hundred and forty-two		140	
Eight hundred and fifty-nine		257	
Six hundred and thirty-six		617	
Three hundred and seventy		499	

Lesson 2: Types of numbers

Activity 1



Point to a number and ask your partner: 'Is... an odd/even number?'

111 70 41 206 67
 22 27 99 142 17
 14 153 19 44 121

Write the even numbers in descending order and write the odd numbers in ascending order.

Activity 2



Sort these numbers into groups of even numbers and odd numbers.

51 122 73 1000 97 53
 66 76 999 61 144 1

even numbers	
odd numbers	



Reflect – Do you need to practise your numbers more? When you are at home or around your town say all the numbers you see in English.



Homework – Count everything you can in English. Count the trees you pass, the steps you take and the sips you take from your drinks. Next lesson tell your class the most unusual thing you counted.

1 2 3 4 5 6 7 8 9 10

Lesson 3: Addition and subtraction

Activity 1



Add the numbers as you move up the pyramid.



Activity 2



Complete the number squares.

a

6	+		=	14
+		+		+
	+	9	=	16
=		=		=
13	+		=	

b

20	-	12	=	
+		+		+
25	-		=	13
=		=		=
	-		=	

Lesson 4: Multiplication and division

Activity 1



Read the following number sentences using the words below.

- times
- multiplied by
- the product of.

$$2 \times 6 = \quad 8 \times 3 = \quad 10 \times 5 =$$

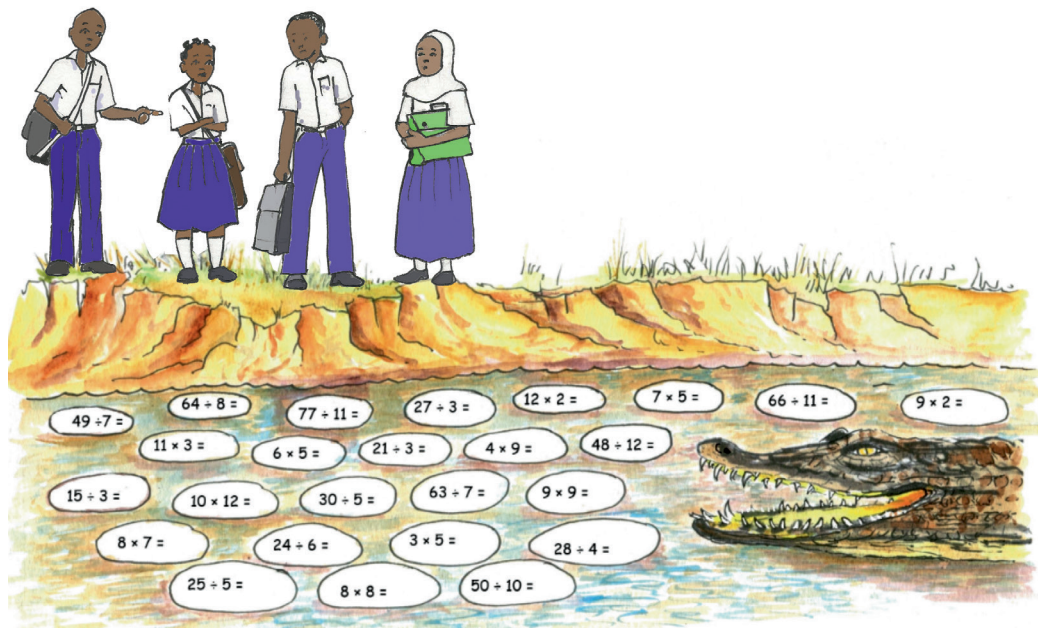
- divided by
- goes into
- the quotient of.

$$27 \div 9 = \quad 36 \div 6 = \quad 45 \div 9 =$$

Activity 2



Take turns to step on a stone by reading out loud and answering the number sentences correctly. Cross the lake without being eaten by the crocodile.

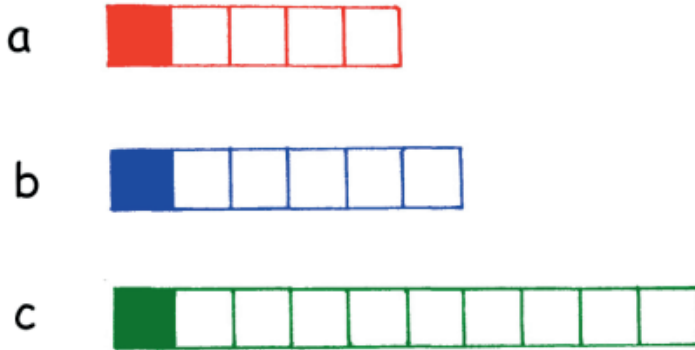


Lesson 5: Fractions

Activity 1



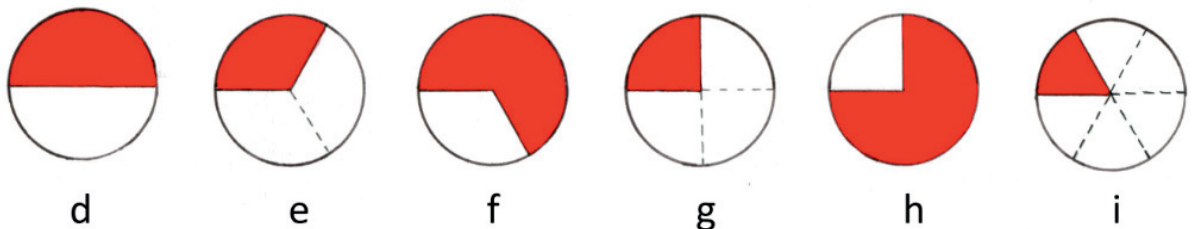
Tell your partner the fraction of the shaded and unshaded parts of each rectangle.



Activity 2



Write the shaded fractions of each circle. Write the fraction in numerals and words.



Reflect – You tried a mingle activity in this lesson. Can you think of other ways of practising your English using a mingle? Try to think of another way to use a mingle and tell your teacher next lesson.

Lesson 6: Decimals

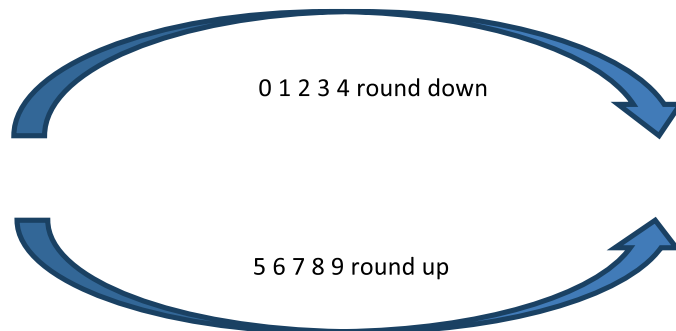
Activity 1



Listen to your partner and write down the decimal they dictate to you.

Units	.	tenths	hundredths	thousandths

Activity 2



Write the following decimals in words.

0.6

0.36 (rounded to one decimal place)

0.852 (rounded to two decimal places)

0.1297 (rounded to three decimal places)

0.0453 (rounded to three decimal places)



Homework – Can you invent your own card number game at home?

Lesson 7: Percentages

Activity 1



Which of the numbers in the box are percentages?

52%	30%
52	60
17	60%
100	$\frac{60}{100}$

Now read these numbers:

20% 30% 100% 1%
0.25% 75% 0.01%

Activity 2



Complete the table.

<i>Percentage</i>	<i>Words</i>	<i>Words</i>	<i>Percentage</i>
12%		Twenty seven percent	
36%		One percent	
89%		Zero point five three percent	
50%		Zero point one two zero five percent	
99%		Half a percent	

Lesson 8: Converting fractions, decimals and percentages

Activity 1



Copy and complete the table.

	<i>Fraction</i>	<i>Decimal</i>	<i>Percentage</i>
Example:	$\frac{75}{100}$	0.75	75%
a			50%
b	$\frac{1}{100}$		
c		0.25	
d	$\frac{35}{100}$		
e			40%



Reflect – Think about real life situations where you have to use fractions, decimals and percentages. When does this happen?



Homework – Try to use English next time you are in a shop or a place where they might understand English.

Lesson 9: Integers

Activity 1



Student A: Read the following numbers to your partner.

-10, +12, -7, -1, 0, +3, +9, -4, +6.

Student B: Read the following numbers to your partner.

-5, +14, -3, -22, 0, +6, +9, -1, +5

Write *higher, lower, more or less* in the gaps.

- a** -7 is _____ than -1
b 62 is _____ than -71
c -136 is _____ than -36

Write the answers to **d, e, and f** in numerals and words.



d In England on a day in January the temperature is -1 centigrade. The next day the temperature drops five degrees. What is the new temperature?



e Daudi sells his lemonade and makes a profit of 5,000 shillings on the first day but has to go out and buy new ingredients the next day which cost him 7,500 shillings. How much profit or loss has he made by the second day?



f In the African Nations Cup, goal difference was used to see whether Tanzania or Egypt went forward. Tanzania had scored 8 and conceded 5. Egypt had scored 8 and conceded 10. What were the goal differences and who goes forward to the next stage?

Activity 2



Pick the numbers from the bag and put them on the number line.



Lesson 10: Number patterns

Activity 1



A number pattern is...

Discuss the two missing terms for each of the following number patterns. What is the rule?

a $3, 6, 9, _, 15, _.$

b $3, 8, 13, 18, 23, _, _.$

c $11, 8, 5, 2, _, _.$

d $2, 4, 8, 16, _, _.$

e $-5, -8, -11, -14, -17, _, _.$

f $1, 4, 9, 16, _, _.$

g $1, 3, 6, 10, 15, _, _.$

h $\frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{4}{5}, _, _.$

i $0.1, 1.2, 2.3, 3.4, _, _.$

j $_, _, 0.33, 0.44, 0.55, _, _.$

k $_, _, 14, 30, 62, 126, _, _.$



Homework – Do you think you could write your own number patterns? Try at home.

See if anyone in your family can help you. They might be able to test you with your numbers.