Teacher notes Numbers & Operations - Grade 6

Many of these stations have been designed as an assessment tool for the objectives of the new curriculum. However, teachers may choose to use these as introductory activities, practise activities or centre activities.

These stations lend themselves well to the adaptive dimension of the Core Curriculum. See The Adaptive Dimension in the Core Curriculum available in all schools. The document can be ordered from the Book Bureau (#1655). Changes can be made to the context or to the level of difficulty to adapt to the individual needs in your classroom.

Similar stations can be created by using activities from textbooks and other resources. Binders that accompany manipulatives are an excellent source of ready-made activities.

A few excellent resources are:

Name	*Distributor*	*Where to Order*	*Order #*	*Cost*
101 winning ways Base Ten Blocks (Active Learning Series)	Exclusive	Book Bureau	6024	$31.65
Pattern Blocks 4-6 (Active Learning Series)	Exclusive	Book Bureau	1668	$27.90
The Geoboard Collection 4-6 (Active Learning Series)	Exclusive	Book Bureau	826	$29.90
Fraction Blocks Binder (Active Learning Series)	Exclusive	Book Bureau	7192	$32.00
Twenty Thinking Questions Base ten blocks (3-6) (Creative Publications)	Addison-Wesley Publishers	Addison-Wesley Publishers	SC5-1-56107-797-6	$30.80
Connections Grade 6 also recommended for Geo/Measurement (Creative Publications)	Addison-Wesley Publishers	Addison-Wesley Publishers	SC5-0-88488-773-1	$30.75

Getting ready . . .

Station #1 Record the following numbers on a audio-cassette.
Be sure to read clearly and slowly repeating each number 3 times.

a)	4 987	b)	100 001	c)	997
d)	1 200	e)	102 230 342	f)	1 billion
g)	798.456	h	one thousand and one thousandth		
i)	5 tenths	j)	10 million 3 thousand six		
k)	one third	l)	five tenths		
m)	32 hundredths	n)	11 thousand one hundred twenty one		

Add any other number that you wish..

NOTE:
1. We do not use "and" as we read larger numbers:
   "one hundred two" **NOT** "one hundred <u>and</u> two"
2. **NO commas!** "2000" and **NOT** "2,000"
3. 2000 but we use spaces for more digits - 20 000

This station is an excellent way to test students on large numbers without taking hours of the teacher's time. Students sometimes have difficulty with large numbers and this is a good way to let them hear and write what they hear.

On the other side of the card, write several numbers that you wish students to read orally on cassette.

Station #2 Make place value cards such as

two hundred	forty	seven

Place the cards that represent each number in a separate envelope.
On the envelope write the number and the statement:

89 247: The missing card is [ ]

On their answer sheets students should write:

"The missing number is eighty nine thousand".

Station #3 Make cards as above using decimal numbers.

Station #4 Make cheque books using the following check blank:
Student writing: Invent name of bank, location, account number and add to check.
BILLS: make some or use some that you have that would be appropriate.
See next page for a sample of a cheque.

Cheque # _____ _____ 19 ____

Pay to the order of _____ $ _____

_____ ____ DOLLARS

100

_____

Signature

Station #5 Great way to integrate the resource centre with mathematics.

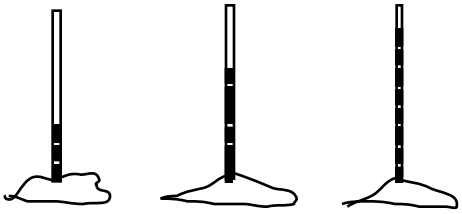
Station #6 Use thin drinking straws for uprights.
Cut these straws about 15 cm in length.

Use larger drinking straws for the beads. (Straws from McDonalds work well and all you need to do is ask for straws and they are usually very generous. Larger drinking straws are sometimes available at other fast food outlets or at department and at bargain stores.)

Cut them into 1-1.5 cm pieces.

Insert long thin straw into a small piece of plasticine.

Store each set in self sealing plastic bags.

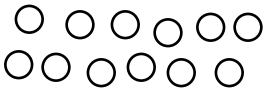


Station #7 For fraction strips have students make their own by paper folding or copy the patterns provided with the activity. Fraction Stax are available from Addison-Wesley Publishers.

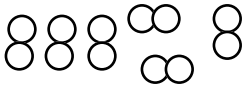
Station #8 Adding machine rolls can be purchased in bulk at office supply stores. They go a long way and are good for a variety of projects...

Station #9 To prepare egg cartons: Use several cartons cutting one of each like the following:

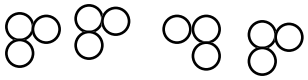
singles (twelfths)



doubles (sixths)



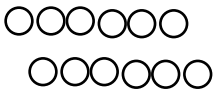
triples (quarters)



or

fours (thirds)

sixes (halves)



twelves (whole) or twelfths

Differentiate each fraction by painting each one a different color.
You can also place a different color dot with a felt marker.

Station #11 For fraction strips have students make their own by paper folding or copy the patterns provided with the activity. Fraction Stax are available from Addison- Wesley Publishers.

Station #12 Two sided counters can be purchased commercially or made cheaply by placing one layer of white lima beans in a box and spray painting one side.
Let dry and you will have buckets of two sided counters.

Station #13 Collect newspaper articles etc. that involve fractions.

Station #14 See previous stations for instructions for egg cartons.
For fraction strips have students make their own by paper folding or copy the patterns provided with the activity.

You may wish to cut and paste so that you have many of the same fractions on one page and then you can copy each fraction a different color

Station #15 You can purchase fraction materials commercially or you can use the the patterns provided with the station to make some out of cardboard or plastic covers from duo-tangs (or from foam poster board)

Station #16 Cut paper strips with a paper cutter and store in a box or boxes ready for student use.

Station #17 Again students can make their own fraction strips or you may want to use the ones provided for station 15.

Station #20 & 21 Students will need a fraction calculator recommended in the curriculum guide. These calculators are sold by Addison-Wesley and are also available from the Book Bureau.

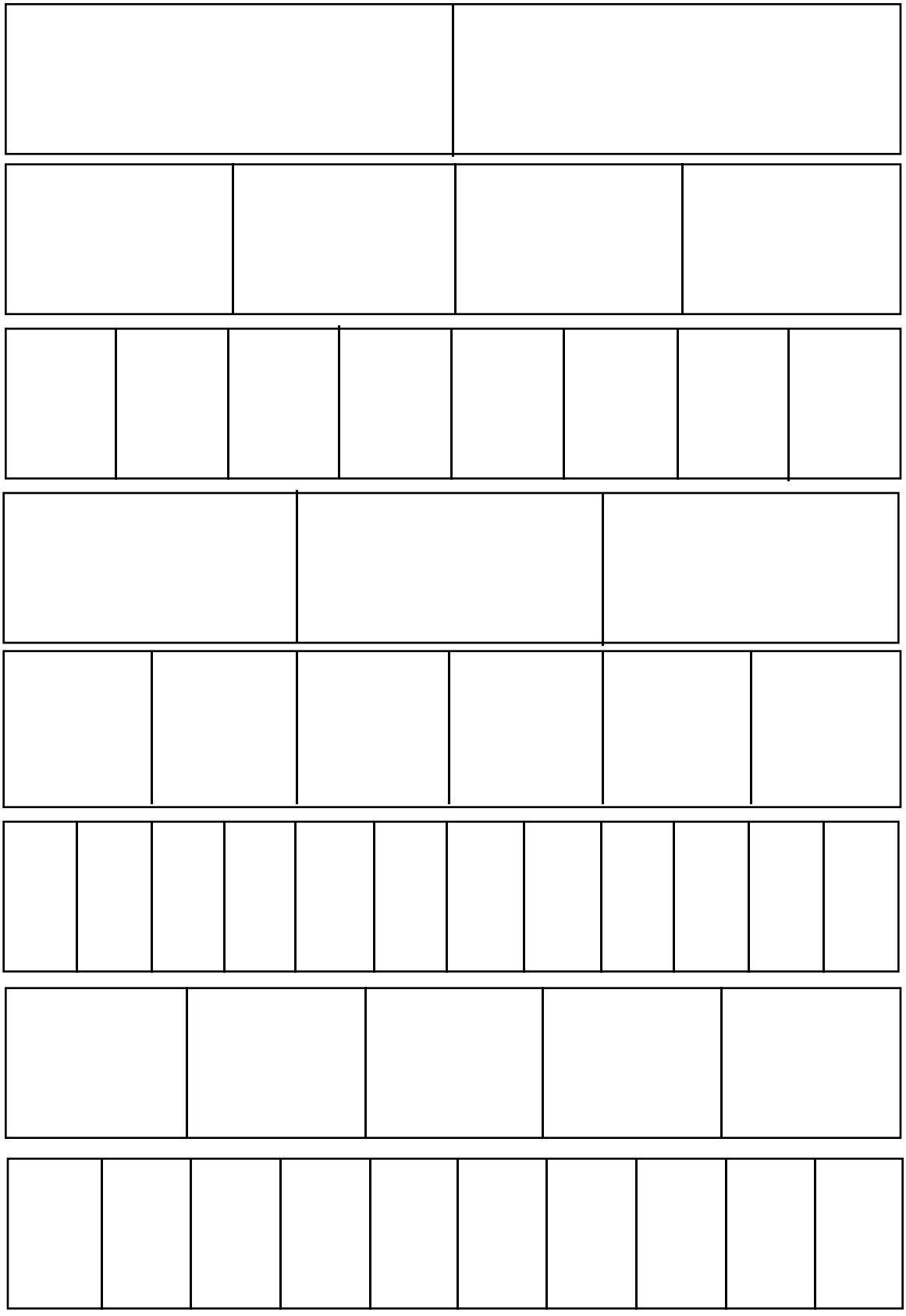
ACTIVITY SHEET

Numbers and Operations # 7

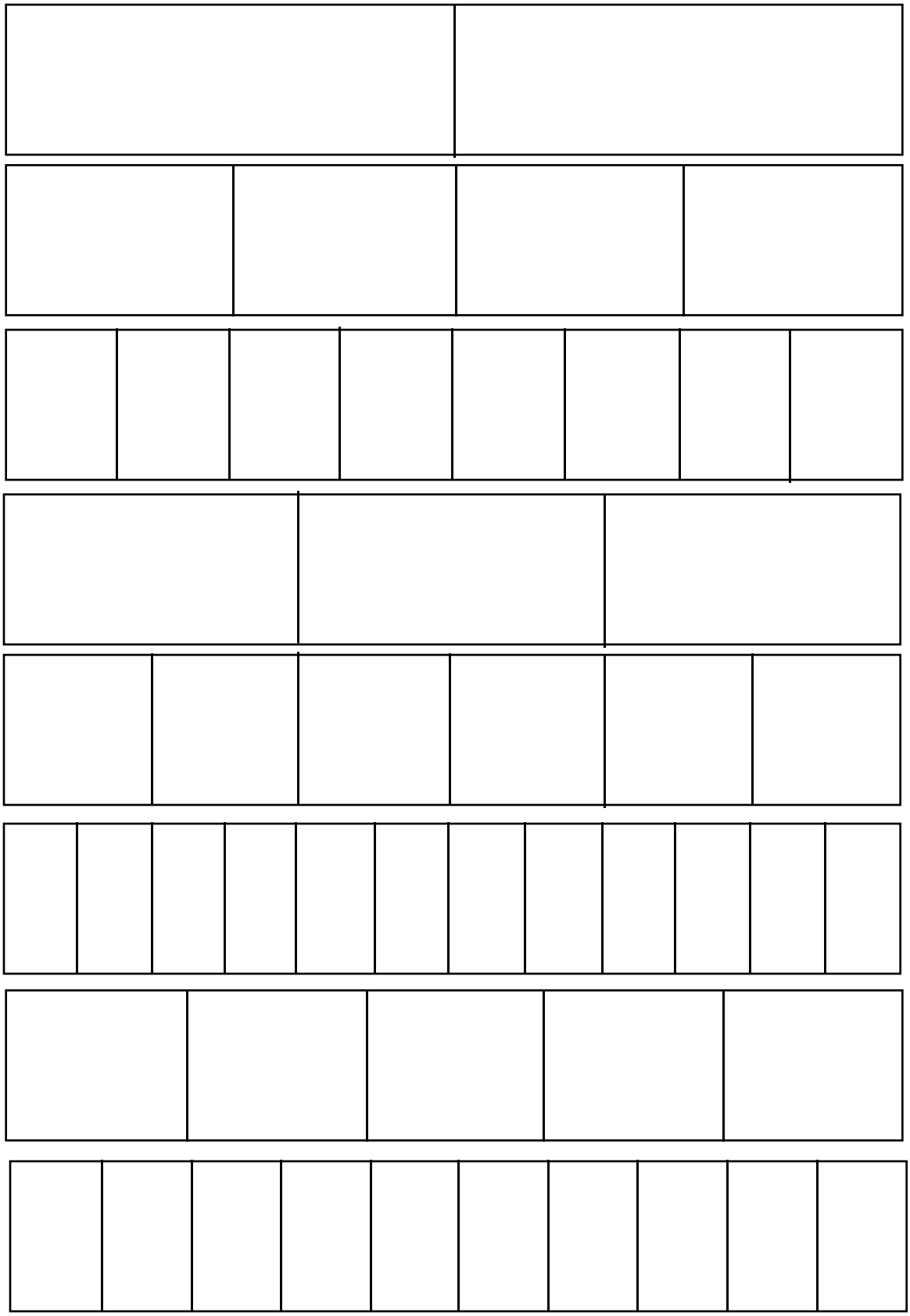
$\frac{2}{3}$	$\frac{4}{6}$	$\frac{5}{10}$	$\frac{1}{10}$
$\frac{1}{5}$	$\frac{8}{8}$	$\frac{2}{6}$	$\frac{3}{8}$
$\frac{8}{10}$	$\frac{3}{4}$	$\frac{1}{3}$	$\frac{4}{8}$
$\frac{7}{10}$	$\frac{2}{8}$	$\frac{6}{10}$	$\frac{7}{8}$

close to 0	close to $\frac{1}{2}$	close to 1

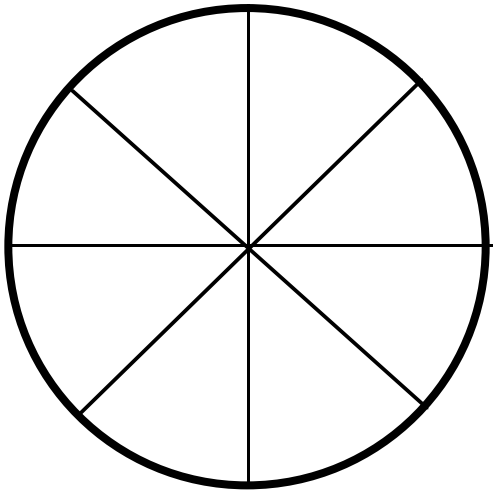
Fraction Strips **7**

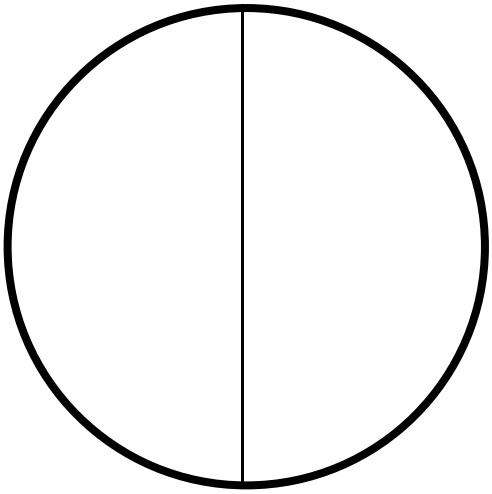


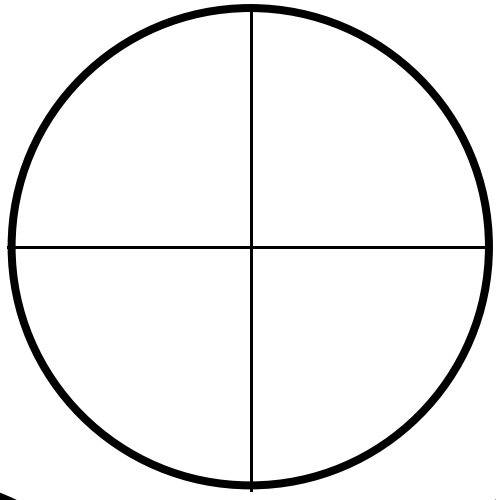
Fraction Strips 10

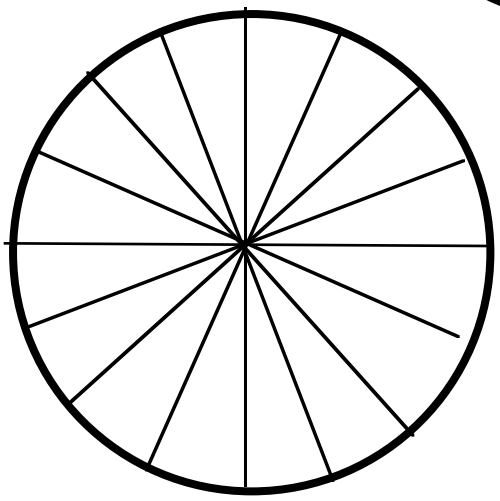


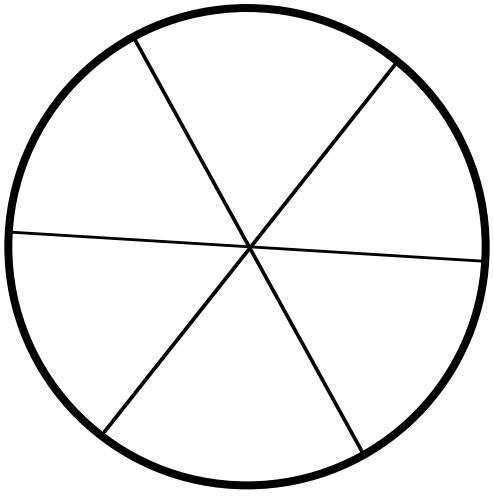
Numbers and Operations 10











Numbers and Operations # 11

MULTIPLICATION TABLE

X											

Fraction Strips