NFA IND ACTIVITY
COUNTING

Predictacount on by 1

D

Purpose
Practise counting on by ones within two digit numbers up to 100.

Materials
- Calculator
- Numeral cards 0-9
- Paper
- Pencil
- Optional 100 chart

Steps

1) Turn over 1numeral card to make a one digit number or two cards to make a two digit number.
2) Write the start number at the top of your page.
3) Predict the next number in the counting sequence and record your prediction.
4) Enter Start Number + 1 then press = on the calculator to check your prediction. (You only need to press = for the calculator to keep adding)
5) Repeat the pattern of predicting, recording & checking with a calculator until down to the bottom of page.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete the race yourself.
- Try a three digit number.

NFA IND ACTIVITY
COUNTING

SLAM DUNK by 1s.

D

Purpose
Practise counting on by 1s from 0 to 30 or more and count more than 20 objects.

Materials
- Dice
- Slam Dunk by 1s recording sheet
- Pencil

Steps

1) Choose a number to start e.g. 15 and record this number in the score column
2) Record a one in the roll column on your first roll.
2) Roll the die and record the score for each of the baskets.
(E.g. if you roll a 3 that counts as 3 baskets, each basket is worth 2 points)
2) Record the roll on the die in the dice column
3) Record the counting adding by 2s in the score column
4) Roll four more times and record the score for each of the baskets counting on from the last score.

Things to try
-Race against a partner to see who gets the highest score after 5 rolls.
-Predict the final score before you start the game.
-Use a timer, watch or clock to record how fast you complete each task & race yourself.

NFA IND ACTIVITY
COUNTING

Plus or Minus Game

D

Purpose
Practise counting forwards or backwards from 0 to 20 by 1s.

Materials
- Number line 1-20
- Dice
- Clothes peg

Steps

1) Pick a number on the number to start and place the peg on that number eg.17
2) Roll the die and move the clothes peg 'that many spaces' back or forward, e.g. - 4 is rolled: move the peg back to 13.
3) The student says the 'count' sequence for that move, e.g. 16, 15, 14, 13.
4) When the student reaches or passes 1, they start again at 17 or a different number.

Things to try
-Race against a partner to see who gets the highest score after 5 rolls.
-Predict the final score before you start the game.
-Use a timer, watch or clock to record how fast you complete each task & race yourself.

NFA IND ACTIVITY
COUNTING

Count to 50

D

Purpose
Practise counting, reading and sequencing the numerals to 50.

Materials
- Dice
- 50s number chart
- Blank 50s chart with numbers missing.
- Pencil

Steps

1) Use the 50 number chart and practise counting from 0—50
2) Flip the chart over and practising counting from 0—50 without using a chart.
3) Use a blank 50s number grid and fill in the numbers without looking at the other chart. (If you are having trouble you can use the chart to help you.)
4) For a challenge try completing the chart from 50 to 100.

Things to try
-Race against a partner to see who gets the highest score after 5 rolls.
-Predict the final score before you start the game.
-Use a timer, watch or clock to record how fast you complete each task & race yourself.

NFA IND ACTIVITY
COUNTING

Predictacount 10, 5 & 2

E

Purpose
Practise counting on by tens, fives and twos within two digit numbers going past 100.

Materials
- Dice
- 50s number chart
- Blank 50s chart with numbers missing.
- Pencil

Steps

1) Choose either 10, 5 or 2 to add over and over for this game .
(E.g. if your starting number is 0 and you chose 5 in step 2 you would be adding 5 each time)
3) Predict, and record your prediction.
4) Add the number chosen in step 2 using a calculator from your start number to check your prediction.
5) Repeat the pattern of predicting, recording & checking with a calculator until above 100.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself

NFA IND ACTIVITY
COUNTING

Count to $1

E

Purpose
Practise skip counting 10 cent pieces by 10.

Materials
- 100 Grid
- 10, 10 cent coins
- Cups

Steps

1) Place the 10, 10c pieces into the cup and pour onto the table.
2) All the 'tail' coins are counted and the 'head' coins are placed to the side.
3) Count the tail coin by 10s to find the total.
4) Use the hundred chart to keep track of you skip counting.
5) Try to make a dollar in less than five turns.

Things to try
-Use 20 10cent pieces and make to $2
-Use a timer, watch or clock to record how fast you complete each task & race yourself.

NFA IND ACTIVITY
COUNTING

Counting Coins

E

Purpose
Practise counting a variety of different coins.

Materials
- 100 Grid
- 10, 10 cent coins
- Cups

Steps

1) Place the 10, 10c pieces into the cup and pour onto the table.
2) All the 'tail' coins are counted and the 'head' coins are placed to the side.
3) Count the tail coin by 10s to find the total.
4) Use the hundred chart to keep track of you skip counting.
5) Try to make a dollar in less than five turns.

Things to try
-Use 20 10cent pieces and make to $2
-Use a timer, watch or clock to record how fast you complete each task & race yourself.

NFA IND ACTIVITY
COUNTING

Predictacount <u>on</u> 2 digit under 100

F

Purpose
Practise counting on by tens, fives and twos within two digit numbers up to 100.

Materials
- Calculator
- Numeral cards
- Paper
- pencil

Steps

1) Turn over 1numeral card to make a one digit number.

2) Choose either 10, 5 or 2 to add over and over for this game.
(E.g. if your starting number is 2 and you chose 5 in step 2 you would be adding 5 each time)
3) Predict, and record your prediction .
4) Add the number chosen in step 2 using a calculator from your start number to check your prediction.
5) Repeat the pattern of predicting, recording & checking with a calculator until above 100.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself

NFA IND ACTIVITY
COUNTING

Predictacount on 10,5,2

F

Purpose
Practise counting on by tens, fives and twos within two digit numbers going past 100.

Materials
- Calculator
- Numeral cards
- Paper
- pencil

Steps

1) Turn over 1 or 2 numeral cards to make a one or two digit number.

2) Choose either 10, 5 or 2 to add over and over for this game.
(E.g. if your starting number is 28 and you chose 5 in step 2 you would be adding 5 each time)

3) Predict, and record your prediction.

4) Add the number chosen in step 2 using a calculator from your start number tocheck your prediction.

5) Repeat the pattern of predicting, recording & checking with a calculator until above 120.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself

NFA IND ACTIVITY
COUNTING

SLAM DUNK 2s ODD

F

Purpose
Practise counting on by 2s from **odd** numbers.

Materials
- Dice
- Slam Dunk 2s Odd recording sheet
- pencil

Steps

1) Choose an **odd** number to start from e.g. 15 and record this number in the score column

2) Record a 1 in the roll column on your first roll

2) Roll the die and record the score for each of the baskets.
(E.g. if you roll a 3 that counts as 3 baskets, each basket is worth 2 points)

2) Record the roll on the die in the dice column

3) Record the counting adding by 2s in the score column

4) Roll four more times and record the score for each of the baskets counting on from the last score.

Things to try
-Race against a partner to see who gets the highest score after 5 rolls.
-Predict the final score before you start the game.
-Use a timer, watch or clock to record how fast you complete each task & race yourself.

NFA IND ACTIVITY
COUNTING

Predictacount Down 2 digit

F

Purpose
Practise counting back by tens, fives and twos within two digit numbers .

Materials
- Calculator
- Numeral cards
- Paper
- pencil

Steps

1) Turn over 1 numeral card to make a two digit number in the 90s.
(E.g. if you turn over a 4, your starting number is 94)

2) Choose either 10, 5 or 2 to subtract over and over for this game.

3) Predict, and record your prediction .
(E.g. if your starting number is 94 and you chose 5 in step 2 you would be subtracting 5 each time)

4) Subtract the number chosen in step 2 using a calculator from your start number to check your prediction.

5) Repeat the pattern of predicting, recording & then checking with a calculator until below 10.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself

NFA IND ACTIVITY
COUNTING

Predictacount Down 100 in 100s

G

Purpose
Practise counting back by hundreds within three digit numbers .

Materials
- Calculator
- Numeral cards
- Paper
- pencil

Steps

1) Turn over 3 numeral cards in order to make a 3 digit number. (The first card turned over is the 100's place etc.)

2) Predict and record your prediction of 100 less than the starting number.

3) Subtract 100 from the current starting number on the calculator to check your predictions.

4) Predict, record and subtract 100 from the new number.

5) The activity continues until you have subtracted a total of 500, i.e.: five turns.

6) Then turn over 3 new cards and begin the activity again.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself

NFA IND ACTIVITY
COUNTING

Predictacount Down 20

G

Purpose
Practise counting back by twenties within three digit numbers .

Materials
- Calculator
- Numeral cards
- Paper
- pencil

Steps

1) Turn over 3 numeral cards in order to make a 3 digit number. (The first card turned over is the 100's place etc.)
2) Predict and record your prediction of 20 less than the starting number.
3) Subtract 20 from the current starting number on the calculator to check your predictions.
4) Predict, record and subtract 20 from the new number.
5) The activity continues until you have subtracted a total of 200, i.e. ten turns.
6) Then turn over 3 new cards and begin the activity again.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself

NFA IND ACTIVITY
COUNTING

Predictacount on 3, 4 , 9

G

Purpose
Practise counting on by 3s, 4s & 9s from a zero starting point.

Materials
- Calculator
- Paper
- pencil

Steps

1) Enter zero on the calculator.
2) Choose either 3, 4 or 9 to add over and over for this game.
3) Write zero at the top of your page.
4) Write 3 (or 4 or 9) as your 1st prediction.
5) Enter 3 (or 4 or 9) then press = on the calculator to check your prediction.
(You only need to press = for the calculator to keep adding)
6) Predict, record and check your predictions with the calculator until you get over 30. 40 or 90.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself

NFA IND ACTIVITY
COUNTING

Predictacount on 80, 60 , 70

H

Purpose
Practise counting on by 80, 60 & 70 from a zero starting point.

Materials
- Calculator
- Paper
- pencil

Steps

1) Enter zero on the calculator.
2) Choose either 80, 60 or 70 to add over and over for this game.
3) Write zero at the top of your page.
4) Write 80 (or 60 or 70) as your 1st prediction.
5) Enter 80 (or 60 or 70) then press = on the calculator to check your prediction.
(You only need to press = for the calculator to keep adding)
6) Predict, record and check your predictions with the calculator until you get over 800, 600 or 700.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself

NFA IND ACTIVITY
COUNTING

Predictacount on 8, 6 , 7

H

Purpose
Practise counting on by 8s, 6s & 7s from a zero starting point.

Materials
- Calculator
- Paper
- pencil

Steps

1) Enter zero on the calculator.
2) Choose either 8, 6 or 7 to add over and over for this game.
3) Write zero at the top of your page.
4) Write 8 (or 6 or 7) as your 1st prediction.
5) Enter 8 (or 6 or 7) then press = on the calculator to check your prediction.
(You only need to press = for the calculator to keep adding)
6) Repeat this process by adding your chosen number (8 or 6 or 7) to the progressive number & checking it on the calculator.
6) Predict, record and check your predictions with the calculator until you get over 100.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself

NFA IND ACTIVITY
COUNTING

SLAM DUNK 89

H

Purpose
Practise counting on by 2s from an high two digit odd number bridging 100.

Materials
- Dice
- Slam Dunk 2s Odd recording sheet
- pencil

Steps

1) Start with a score of 89
2) Record a 1 in the roll column on your first roll
2) Roll the die and record the score for each of the baskets.
(E.g. if you roll a 3 that counts as 3 baskets, each basket is worth 2 points)
2) Record the roll on the die in the dice column
3) Record the counting adding by 2s in the score column
4) Roll five more times and record the score for each of the baskets counting on from the last score.

Things to try
-Race against a partner to see who gets the highest score after 5 rolls.
-Predict the final score before you start the game.
-Use a timer, watch or clock to record how fast you complete each task & race yourself.

NFA IND ACTIVITY
COUNTING

SLAM DUNK 88

H

Purpose
Practise counting on by 2s from a high two digit even number while bridging 100.

Materials
- Dice
- Slam Dunk 2s Odd recording sheet
- pencil

Steps

1) Start with a score of 88
2) Record a 1 in the roll column on your first roll
2) Roll the die and record the score for each of the baskets.
(E.g. if you roll a 3 that counts as 3 baskets, each basket is worth 2 points)
2) Record the roll on the die in the dice column
3) Record the counting adding by 2s in the score column
4) Roll five more times and record the score for each of the baskets counting on from the last score.

Things to try
-Race against a partner to see who gets the highest score after 5 rolls.
-Predict the final score before you start the game.
-Use a timer, watch or clock to record how fast you complete each task & race yourself.

NFA IND ACTIVITY
COUNTING

Predictacount 10, 100, 1000

H

Purpose
Practise counting forward and backward by 10s, 100s or 1000s from a 4 digit number.

Materials
- Dice
- Calculator
- Paper
- pencil

Steps

1) Turn over 4 numeral cards to make a four digit number.
2) Choose either 10, 100 or 100 to add or subtract over and over for this game.
(E.g. if your starting number is 2865 and you chose 10 in step 2 you would be adding or subtracting 10 each time)
3) Predict, and record your prediction.
4) Add the number chosen in step 2 using a calculator from your start number to check your prediction.
5) Repeat the pattern of predicting, recording & checking with a calculator.
6) Practise reading your numbers out loud to increase your accuracy with saying larger numbers.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself
-Race against a partner to see who gets the highest score after 5 rolls.
-Predict the final score before you start the game.
-Use a timer, watch or clock to record how fast you complete each task & race yourself.

NFA IND ACTIVITY
COUNTING

Predictacount 10, 100, 1000

H

Purpose
Practise counting forward and backward by 10s, 100s or 1000s from a 5 digit number.

Materials
- Dice
- Calculator
- Paper
- pencil

Steps

1) Turn over 4 numeral cards to make a five digit number.
2) Choose either 10, 100 or 100 to add or subtract over and over for this game.
(E.g. if your starting number is 28,651 and you chose 10 in step 2 you would be adding or subtracting 10 each time)
3) Predict, and record your prediction.
4) Add the number chosen in step 2 using a calculator from your start number to check your prediction.
5) Repeat the pattern of predicting, recording & checking with a calculator.
6) Practise reading your numbers out loud to increase your accuracy with saying larger numbers.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself
-Race against a partner to see who gets the highest score after 5 rolls.
-Predict the final score before you start the game.
-Use a timer, watch or clock to record how fast you complete each task & race yourself.

NFA IND ACTIVITY
COUNTING

Predictacount 10, 100, 1000

H

Purpose
Practise counting forward and backward by 10s, 100s or 1000s from a 6 digit number.

Materials
- Dice
- Calculator
- Paper
- pencil

Steps

1) Turn over 4 numeral cards to make a six digit number.
2) Choose either 10, 100 or 100 to add or subtract over and over for this game.
(E.g. if your starting number is 287,651 and you chose 10 in step 2 you would be adding or subtracting 10 each time)
3) Predict, and record your prediction.
4) Add the number chosen in step 2 using a calculator from your start number to check your prediction.
5) Repeat the pattern of predicting, recording & checking with a calculator.
6) Practise reading your numbers out loud to increase your accuracy with saying larger numbers.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself
-Race against a partner to see who gets the highest score after 5 rolls.
-Predict the final score before you start the game.
-Use a timer, watch or clock to record how fast you complete each task & race yourself.

NFA IND ACTIVITY
COUNTING

Predictacount Down tenths in 3 digits

I

Purpose
Practise counting back by tenths within three digit numbers.

Materials
- Calculator
- Numeral cards
- Paper
- pencil

Steps

1) Turn over 3 numeral cards in order to make a 3 digit number. (The first card turned over is the 100's place etc.)
2) Choose where to place the decimal point.
3) Predict and record a prediction of one tenth less than the starting number.
3) Subtract one tenth from that number on the calculator and check your predictions.
4) Predict, record and subtract one tenth from the new number.
5) The activity continues until you have subtracted a total of 5, i.e. fifty turns.
6) Then turn over 3 new cards and begin the activity again.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself

NFA IND ACTIVITY
COUNTING

Predictacount Up tenths in 3 digits

I

Purpose
Practise counting on by tenths within three digit numbers.

Materials
- Calculator
- Numeral cards
- Paper
- pencil

Steps

1) Turn over 3 numeral cards in order to make a 3 digit number. (The first card turned over is the 100's place etc.)
2) Choose where to place the decimal point.
3) Predict and record a prediction of one tenth more than the starting number.
3) Add one tenth to that number on the calculator and check your predictions.
4) Predict, record and add one tenth from the new number.
5) The activity continues until you have added a total of 5, i.e. fifty turns.
6) Then turn over 3 new cards and begin the activity again.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself

NFA IND ACTIVITY
COUNTING

Predictacount Down by hundredths in 3 digits

J

Purpose
Practise counting back by hundredths within three digit numbers.

Materials
- Calculator
- Numeral cards
- Paper
- pencil

Steps

1) Turn over 3 numeral cards in order to make a 3 digit number. (The first card turned over is the 100's place etc.)
2) Choose where to place the decimal point.
3) Predict and record a prediction of one hundredth less than the starting number.
3) Subtract one hundredth from that number on the calculator and check your predictions.
4) Predict, record and subtract one hundredth from the new number.
5) The activity continues until you have subtracted a total of 1, i.e.100 turns.
6) Then turn over 3 new cards and begin the activity again.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself

NFA IND ACTIVITY
COUNTING

Predictacount Up by hundredths in 3 digits

J

Purpose
Practise counting on by hundredths within three digit numbers.

Materials
- Calculator
- Numeral cards
- Paper
- pencil

Steps

1) Turn over 3 numeral cards in order to make a 3 digit number. (The first card turned over is the 100's place etc.)

2) Choose where to place the decimal point.

3) Predict and record a prediction of one hundredth more than the starting number.

3) Add one hundredth to that number on the calculator and check your predictions.

4) Predict, record and add one hundredth from the new number.

5) The activity continues until you have added a total of 1, i.e.100 turns.

6) Then turn over 3 new cards and begin the activity again.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself

NFA IND ACTIVITY
COUNTING

Predictacount Up by thousandths in 3 digits

K

Purpose
Practise counting on by thousandths within three digit numbers.

Materials
- Calculator
- Numeral cards
- Paper
- pencil

Steps

1) Turn over 3 numeral cards in order to make a 3 digit number. (The first card turned over is the 100's place etc.)

2) Choose where to place the decimal point.

3) Predict and record a prediction of one thousandth more than the starting number.

3) Add one thousandth to that number on the calculator and check your predictions.

4) Predict, record and add one thousandth from the new number.

5) The activity continues until you have added a total of 1, i.e.100 turns.

6) Then turn over 3 new cards and begin the activity again.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself

NFA IND ACTIVITY
COUNTING

Predictacount Down by thousandths in 3 digits

K

Purpose
Practise counting back by thousandths within three digit numbers.

Materials
- Calculator
- Numeral cards
- Paper
- pencil

Steps

1) Turn over 3 numeral cards in order to make a 3 digit number. (The first card turned over is the 100's place etc.)

2) Choose where to place the decimal point.

3) Predict and record a prediction of one thousandth less than the starting number.

3) Subtract one thousandth from that number on the calculator and check your predictions.

4) Predict, record and subtract one thousandth from the new number.

5) The activity continues until you have subtracted a total of 1, i.e.100 turns.

6) Then turn over 3 new cards and begin the activity again.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself

NFA IND ACTIVITY NUMERATION

Making Teens

D

Purpose
To model and write 'teen' numbers

Materials
- 10 sided die
- 1 bundle of 10 pop sticks
- 9 loose popsticks
- Number line 11-19
- Paper
- pencil

Steps

1) Start with 1 bundle of pop sticks
2) Roll the die
3) Use the loose pop sticks to model counting on from the ten. Eg. If you roll a 6, then count on from ten: 11, 12, 13, 14, 15, 16. You have made the number 16.
4) Locate the number on the number line, say the number then write it.

NFA IND ACTIVITY NUMERATION

To model numbers to 100 as tens and ones

D

Purpose
Practise counting on by tens, fives and twos within two digit numbers going past 100.

Materials
- 100 grid
- 10 bundles of 10 pop sticks
- 9 loose pop sticks
- Bag
- Paper
- pencil

Steps

1) Mix the bundled pop sticks and the loose pop sticks together in a bag
2) Close your eyes and reach into the bag and take a handful of pop sticks
3) Put the handful of pop sticks on the table then calculate the number of pop sticks by counting tens and ones
4) Name and write the number
5) Replace the pop sticks in the bag and repeat many times

NFA IND ACTIVITY NUMERATION

Tens

D

Purpose
To tell the difference between similar looking and sounding two -digit numerals e.g. 30, 13 and 31

Materials
- 9 bundles of 10 pop sticks
- 9 loose pop sticks
- Bag
- Spinner (10, 20x2, 30, 40, 50, 60, 70, 80, 90)
- paper
- pencil

Steps

1) Spin the spinner and read the numeral
2) Model the number with the pop sticks, counting out by tens
3) Name and write the number as place value e.g. If you spin 20, say 20 and write 2 tens
4) Repeat

NFA IND ACTIVITY NUMERATION

Tens + 1

D

Purpose
To tell the difference between similar looking and sounding two -digit numerals e.g. 30, 13 and 31

Materials
- 9 bundles of 10 pop sticks
- 9 loose pop sticks
- Bag
- Spinner (11, 21x2, 31, 41, 51, 61, 71, 81, 91)
- paper
- pencil

Steps

1) Spin the spinner and read the numeral
2) Model the number with the pop sticks, counting out by tens then add 1
3) Name and write the number as place value e.g. If you spin 21, say 21 and write 2 tens and 1 one
4) Repeat

NFA IND ACTIVITY
NUMERATION

Teens

D

Purpose
To tell the difference between similar looking and sounding two-digit numerals e.g. 30, 13 and 31

Materials
- 9 bundles of 10 pop sticks
- 9 loose pop sticks
- Bag
- Spinner (11, 12x2, 13, 14, 15, 16, 17, 18, 19)
- paper
- pencil

Steps

1) Spin the spinner and read the numeral
2) Model the number with the pop sticks, starting with one ten and then adding the ones
3) Name and write the number as place value e.g. If you spin 13, say 13 and write 1 ten and 3 ones
4) Repeat

NFA IND ACTIVITY
NUMERATION

Tricky Numbers on the 100 Grid

D

Purpose
To tell the difference between 'teen' numerals and numerals that are multiples of 10 + 1 e.g. 16 and 61

Materials
- Numeral cards 12-19 and 21, 31, 41, 51, 61, 71, 81, 91.
- 100 grid with numerals 12-19 and 21, 31, 41, 51, 61, 71, 81, 91 shaded
- A blank 100 grid with the positions of 12-19 and 21, 31, 41, 51, 61, 71, 81, 91 shaded

Steps

1) The student uses the 100 grid to read all the 'teen' numbers and describe their position: "12 is in the 10s row. 13 is in the 10s row. etc. They should then read all the numerals that are multiples of 10 + 1 and describe their place on the 100 grid: "21 is in the 20s row. 31 is in the 30s row." etc. The student then turns the 100 grid face down.
2) The student now uses the numeral cards (12-19 and 21, 31, 41, ... 91) and the blank 100 grid. Shuffle the cards and place face down. The student picks up and places each card on the blank 100 grid, describing the placement. For example: "I've picked up 17. That goes in the 10s row." Or "I've picked up 71. That goes in the 70s row."
3) When all the numeral cards have been placed, the student should turn up the 100 grid and check their placement of the numeral cards.

NFA IND ACTIVITY
NUMERATION

Win a flat

D

Purpose
To practise modelling two digit numbers as tens and ones

Materials
- 6 sided die
- MAB– 1xhundreds, 10xtens and 20xones
- Calculator

Steps

1) The idea is to make 100. Use the hundred as a base
2) Roll the die e.g. If you roll 6 then put that many ones on the hundred base
3) Roll the die again e.g. If you roll 5, add this to the previous amount so 11. Place 6 more ones on the hundreds base
4) Rename this to be 1 ten and 1 one (ten of these is one of those)
5) Continue until you fill the hundred base

NFA IND ACTIVITY
NUMERATION

100 Grid Jigsaw

D

Purpose
To visualise the 100s chart

Materials
- 100 chart cut into pieces

Steps

1) Tip out the 100 grid 'jigsaw' pieces
2) Reconstruct the 100 chart

NFA IND ACTIVITY
NUMERATION

Compare within 100

D

Purpose
To compare the value of various two digit numbers

Materials
- Pairs
- 2 digit numbers

Steps

1) Shuffle the cards, split them into two equal piles
2) Place each pile face down
3) Turn up the top card from each pile
4) Work out which card is of greater value
5) The first person to call out the higher number, keeps the cards

NFA IND ACTIVITY
NUMERATION

Landmark Number

D

Purpose
To compare the size of various two digit numbers

Materials
- A die marked 30, 40, 50, 60, 70, 80
- Various two digit numbers on cards
- Number line from 1 to 100

Steps

1) Roll the die. This is the landmark number e.g. 50
2) Pick up several two digit cards and sort them according to whether they are higher or lower than the landmark number
3) Arrange the numbers on the number line, from smallest to largest

NFA IND ACTIVITY
NUMERATION

Getting to 500

E

Purpose
Practise place value choices in ones, tens and hundreds.
Practise adding multiples of ten to a 3 digit number.

Materials
- Tally sheet
- Pencil
- 6 sided die
- Calculator

Steps

1) Throw a die. Decide to either use the number tossed or multiply it by 10 or multiply it by 100. Eg. Could be 3, 30 or 300.
2) Record the number on the tally sheet beside round 1 and enter it on the calculator.
3) Have ten rounds. Keep a running total against each round on the score sheet and add the amount to the calculator to check the total.
4) Record the total after 10 rounds. The best score is the closest to, but less than 500.

Things to try

- Change the target number
- Start at 500 and make the target zero
- Play with two dice

NFA IND ACTIVITY
NUMERATION

Landmark numbers within 1000

E

Purpose
To compare the size of various 3 digit numbers

Materials
- Deck of playing cards with 10s and picture cards removed and 4 zero cards added
- 1000s grid
- Number line (0, 250, 500, 750, 1000)
- Pencil
- Paper

Steps

1) Shuffle the deck of cards then turn up the cards to make four 3 digit numbers Eg. 309, 526, 918, 290.
2) Write the numbers on the number line, explaining why they are placed in that spot.
3) Check the placement with the 1000s grid.

NFA IND ACTIVITY
NUMERATION

Win a cube

E

Purpose
To practise modelling three digit numbers as hundreds and tens.

Materials
- 6 sided dice
- Numeral cards
- Paper
- pencil

Steps

1) The idea is to make 1000. Use the cube as a base
2) Roll the die e.g. If you roll 6 then multiply it by 10, then put that many tens next to the cube.
3) Roll the die again e.g. If you roll 5 (50), add this to the previous amount so 110. Place 5 more tens next to the cube.
4) Rename this to be 1 hundred and 1 ten (ten of these is one of those).
5) Continue until you fill the cube.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself

NFA IND ACTIVITY
NUMERATION

Compare within 1000

E

Purpose
To compare the value of various three digit numbers

Materials
- Pairs
- 3 digit numbers

Steps

1) Shuffle the cards, split them into two equal piles
2) Place each pile face down
3) Turn over the top card from each pile
4) Work out which card is of greater value
5) The first person to call out the higher number, keeps the cards

NFA IND ACTIVITY
NUMERATION

Predictacount Up by hundredths in 3 digits

J

Purpose
Practise counting on by hundredths within three digit numbers.

Materials
- Calculator
- Numeral cards
- Paper
- pencil

Steps

1) Turn over 3 numeral cards in order to make a 3 digit number.
(The first card turned over is the 100's place etc.)
2) Choose where to place the decimal point.
3) Predict and record a prediction of one hundredth more than the starting number.
3) Add one hundredth to that number on the calculator and check your predictions.
4) Predict, record and add one hundredth from the new number.
5) The activity continues until you have added a total of 1, i.e.100 turns.
6) Then turn over 3 new cards and begin the activity again.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself

NFA IND ACTIVITY
NUMERATION

Predictacount Up by thousandths in 3 digits

K

Purpose
Practise counting on by thousandths within three digit numbers.

Materials
- Calculator
- Numeral cards
- Paper
- pencil

Steps

1) Turn over 3 numeral cards in order to make a 3 digit number.
(The first card turned over is the 100's place etc.)
2) Choose where to place the decimal point.
3) Predict and record a prediction of one thousandth more than the starting number.
3) Add one thousandth to that number on the calculator and check your predictions.
4) Predict, record and add one thousandth from the new number.
5) The activity continues until you have added a total of 1, i.e.100 turns.
6) Then turn over 3 new cards and begin the activity again.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself

NFA IND ACTIVITY
NUMERATION

Predictacount Down by thousandths in 3 digits

K

Purpose
Practise counting back by thousandths within three digit numbers.

Materials
- Calculator
- Numeral cards
- Paper
- pencil

Steps

1) Turn over 3 numeral cards in order to make a 3 digit number. (The first card turned over is the 100's place etc.)

2) Choose where to place the decimal point.

3) Predict and record a prediction of one thousandth less than the starting number.

3) Subtract one thousandth from that number on the calculator and check your predictions.

4) Predict, record and subtract one thousandth from the new number.

5) The activity continues until you have subtracted a total of 1, i.e.100 turns.

6) Then turn over 3 new cards and begin the activity again.

Things to try
-Race against a partner
-Use a timer, watch or clock to record how fast you complete each task & race yourself

NFA IND ACTIVITY
Addition & Subtraction

ADDITION COMPARE

E

Purpose
Practise adding two numbers quickly in your head.

Materials
- Numeral cards
- A partner

Steps

Two students play

1) Cards are shuffled and dealt equally (face down) between the two players.
2) Each player turns over two cards and calculates the sum of their own cards. (adds the numbers)
3) Players should check each others'sums.
4) The player with the greatest sum takes all the cards.
5) If it is a tie, each player turns over two more cards and calculates the sum of their cards.
6) The player with the greatest sum (biggest number made) takes all the cards from both plays.
7) The game is over when all the cards have been turned over.
8) The player with the most cards wins the round.

NFA IND ACTIVITY
Addition & Subtraction

DOMINO FACT FAMILIES

E

Purpose
Practise using fact families to solve subtraction problems.

Materials
- Dominoes

Steps

1) Take a domino tile from the collection of tiles. Look at the two 'parts' and the whole:

"2 and 4; that's 6 altogether"

2) Turn the tile face down and try to name two addition facts for the tile e.g. 2 + 4 = 6, and 4 + 2 = 6.

3) Then try to name two subtraction facts for the tile e.g. 6 – 2 = 4, and 6 – 4 = 2.

4) Write the four facts in your book to keep a 'fact family' record.

5) Turn the domino tile face up to check the facts.

6) Repeat many times, using a different domino tile each time.

NFA IND ACTIVITY
Addition & Subtraction

BRIDGING TENS

E

Purpose
Practise adding numbers that bridge ten.

Materials
- Numeral Cards
- 2 tens frames
- 20 Counters

Steps

1) Choose a number from 5 to 9 and place that many counters on the first tens frame. This starting number will stay the same for the entire round.
2) Using your known tens fact figure out which numbers add to ten.
3) Pull out the numbers that when added with your starting number go over 10.
4) Place these cards face down in a pile (put away the other number cards)
5) Turn over a card. Place that many counters on the second tens frame.
6) Think in your head "How many counters do I need to move to fill in the first tens frame?"
7) Guess the sum of the counters placed on the two tens frames added together.
8) Check your accuracy by Sliding counters over and figure the sum of the two numbers.
9) Keep practicing until you have guessed and checked five sums correctly in a row.
10) Start again with a different starting number.

NFA IND ACTIVITY
Addition & Subtraction

GOING OVER 10

E

Purpose
Practise adding numbers that bridge ten.

Materials
- Numeral Cards
- Calculator

Steps

1) Shuffle the cards and place them in a pile face down.
2) For the first addend, turn over a 9. This remains constant for a 'round' of 5 or 6 turns. For a round with 9 as the first addend, remove all of the 1 cards removed, as adding 1 to 9 will <u>not</u> 'go over 10'.
3) Turn over a second card to be the second addend e.g. 6.
4) Think, "9 + 6. Take one from the 6 to make the 9 up to 10. There is 5 left. 10 + 5 is 15."
5) Record the number sentence in your recording book: 9 + 6 = 15.
6) Check your answer using a calculator.
7) Repeat several times for one 'round', always using 9 as the first addend, and turning over another card (2-9) to be the second addend.
8) After 5 or 6 correct turns, start another 'round' by now using an 8 card for the first addend. (For this round all the 1 and 2 cards need to be removed.)
9) Repeat for adding to 7, and then for adding to 6.

NFA IND ACTIVITY
Addition & Subtraction

DOUBLES PLUS ONE

E

Purpose
Practise doubles plus one strategy

Materials
- Dice
- 'Doubles plus 1' board
- Counters 36
- (if 2 players 18 each)
- 18 each if two players

Steps

(This can be a one or two player game)

1) Roll the die

2) Double the number rolled and add one.

3) Place a counter on the game board
(if you roll 4, think 4 + 4 = 8; 8 plus 1 is 9, then mark 9 on the game board)

4) Play until the board is covered.

Things to try
-Race against a partner (each using your own board)
-Use a timer, watch or clock to record how fast you fill the board & race yourself
-Play with a partner using 1 board, each player has different coloured counters. The winner is the play with the most counters on the board when finished.

NFA IND ACTIVITY
Addition & Subtraction

FLIPPER

E

Purpose
Practise adding several numbers in your head (keeping a running total)

Materials
- Numeral cards
- Calculator (to check answers)

Steps

(This can be a one or two player game)

1) shuffle your deck of numeral cards and lay it face down on the table

2) Set the timer for 30 seconds (or 1 or 2 minutes)

3) Flip over one card at a time, keeping a running total (adding them in your head)

4) After 30 seconds, (or 1 minute or 2 minutes) the timer sounds stop.

5) Record the total you reached and the number of cards flipped in order to reach the total ** e.g. if you draw a 7, then a 6 your running total would be 13.

6) Use a calculator with the flipped cards to check your total.

Things to try

-Race against a partner to reach the highest correct number (correct adding in your head– checked with a calculator)
-Set yourself a target number and time yourself to reach that number.
-Race against a partner to reach a target number, the winner is the fastest or closest to the target number.

NFA IND ACTIVITY
Addition & Subtraction

GOT IT

E

Purpose
Practise adding and subtracting small amounts.

Materials
- Numeral cards
- 2 Dice

Steps

(This can be a one or two player game)

1) Remove the **0** cards from your pack of numeral cards.
2) Lay the set of cards from 1-9 face up in front of you.
3) Roll the two dice.
4) Choose to add or subtract the two numbers rolled e.g. If 2 and 6 are rolled.
   - (think 2 + 6). Turn the '8' card face down, or
   - (think 6 – 2). Turn the '4' card face down
5) If you cannot name one of the 'face up' cards using addition or subtraction, roll the two dice again
6) Play until all cards are turned face down

Things to try

-Race against a partner each with your own set of cards to turn over all your cards.
-Time how long it takes you to turn over all the cards using the 5 steps and then try to beat your time.
-Race against a partner using the same set of cards & dice taking turns to roll. The winner is the player who turns over the most cards.

NFA IND ACTIVITY
Addition & Subtraction

PLUS - MINUS - STAYS THE SAME

E

Purpose
Practise adding and subtracting small amounts.

Materials
- Numeral cards
- Hundreds Grid
- Counters 10
- (if 2 players 10 each)

Steps

(This can be a one or two player game)

1) Place the cards face down in a pile

2) Turn over the top two cards. The first card is the tens digit, the second card is the ones digit

3) On the 100 grid, place a counter on that number, that number plus ten, or that number minus 10

4) The goal is to get five counters in a row on the 100 grid, either horizontally, vertically or diagonally

Things to try
-Race against a partner each with your own cards & board to make a row.
-Time how long it takes you to make a row and then try to beat your time.
-Race against a partner using the same set of cards & board taking turns to turn over cards & place counters. The winner is the player who makes a row first.

NFA IND ACTIVITY
Addition & Subtraction

SUBTRACT FROM 10

E

Purpose
Practise subtracting small amounts from 10 by using known addition facts.

Materials
- Numeral cards
- Tens Frame

Steps

(This can be a one or two player game)

1) Shuffle the number cards.

2) Place the cards in a pile, face down.

3) Turn over the first card and place it face up next to the pile.

4) This number is subtracted from 10,

(e.g. turn up 6, so 10 – 6 = 4)

If you don't know the answer check it with counters and a tens frame

5) Repeat this until all cards have been turned over.

Things to try
-Race against a partner each with your own cards.
-Time how long it takes you to turn over all your cards, then try to beat your time.
-Play against a partner take turn in turning over the cards and race to say the answer, the player who says the answer first gets to keep the card. The player who finishes the game with the most cards wins.

NFA IND ACTIVITY
Addition & Subtraction

ADDING 9

E

Purpose
Practise adding nine to any two digit number

Materials
- Calculator
- Ten sided die
- 100 grid
- Transparent counter
- Pencil

Steps

(This can be a one or two player game)

1) Roll the die to get a starting number.

2) Write this number and + 9 in your recording book.

3) Predict the sum by adding 10, then subtracting 1.

4) Enter the starting number + 9 then press = on the calculator to check the prediction.

(You only need to press = for the calculator to keep adding)

5) Continue to predict, record and check you predictions with the calculator until you get over 100.

6) Roll the die to start again.

Things to try

-Race against a partner to reach 100
-Time how long it takes you to reach 100, then try to beat your time.
-If you find this really tricky use a 100 grid and counter to keep track of your running total.

NFA IND ACTIVITY
Addition & Subtraction

DOUBLES

E

Purpose
Practise doubles facts

Materials
- Numeral Cards
- A partner

Steps

(two player game)

1) Place the number cards in a pile face down.

2) Take turns turning over the number cards.

3) Players race to call out the number that is double the card turned over

(if 4 is turned over players race to call out 8)

4) The player who calls out the correct answer first get to keep the card.

5) The winner is the player with the most cards at the end of the game.

Things to try

-Time how long it takes you & your partner to turn over all the cards , then try to beat your time.

NFA IND ACTIVITY
Addition & Subtraction

NEAR DOUBLES

E

Purpose
Practise near doubles facts

Materials
- Numeral Cards
- A partner

Steps

(two player game)

1) Place the number cards in a pile face down.

2) Take turns turning over the number cards.

3) Players race to call out the number that is a near double (doubles plus or minus 1) of the card turned over.

(if 4 is turned over players race to call out 7 or 9)

4) The player who calls out the correct answer first get to keep the card.

5) The winner is the player with the most cards at the end of the game.

Things to try

-Time how long it takes you & your partner to turn over all the cards , then try to beat your time.

NFA IND ACTIVITY
Addition & Subtraction

COMPLIMENT OF 10 FACT FAMILIES

E

Purpose
Practise using fact family knowledge to learn subtraction facts .

Materials
- Numeral Cards
- A 10 card
- Tens Frame
- Counters

Steps

(one or two player game)

1) The ten card is placed face up, and a row of cards in order from 1-9 are also placed face up.
2) All remaining cards are shuffled and placed in a pile face down.
3) Turn over a card to subtract from 10 e.g. 6.
4) Think of the related addition fact to find the subtraction fact e.g.. "6 + 4 makes 10, so 10 subtract 6 is 4".
5) Look for the answer to the subtraction card in the 'face up' row.
6) Place a counter above the face up card that is the answer to the subtraction fact.
7) If you are unsure use a tens frame to check your prediction. For 10 subtract 6, the cover 6 of the cells to see the remaining 4.
8) Turn over another card and repeat until all face up cards are covered.

Things to try

-Time how long it takes you to cover all face up cards, then try to beat your time.
-Race against a partner using separate set of cards, the winner is the first player who covers all the face up cards and completes all the facts correctly.

NFA IND ACTIVITY
Addition & Subtraction

DOUBLES FACT FAMILIES

E

Purpose
Practise using doubles knowledge to learn subtraction facts

Materials
- Spinner
- 2 Tens Frames
- Counters

Steps

(one or two player game)

1) Spin the spinner
2) e.g. If you spin an 8. Name the doubles fact that gives 8, and the subtraction (halving) fact e.g. "4 + 4 = 8, and 8 – 4 = 4"
3) Write both facts as number sentences in your recording book.
4) Use 2 tens frames to check your accuracy.
5) Repeat until all numbers have been spun.

Things to try

-Time how long it takes you to spin all of the numbers and record the related subtraction & doubles facts , then try to beat your time.
-Race against a partner using the same spinner, the winner is the player who can correctly call out, model and record the facts in their recording book.

NFA IND ACTIVITY
Addition & Subtraction

MINUS MULTIPLES OF 10

F

Purpose
Practise subtracting ten and multiples of ten to 2 digit numbers.

Materials
- Numeral cards
- Calculator
- Hundreds grid

Steps

1) Separate the cards into two piles. [1 to 5 in one pile (Pile A) and 6 to 9 in the other pile (Pile B).]

2) Make a two digit number by combining a card from pile A and pile B.
(e.g. if a 7 is drawn from pile B and a 2 is drawn from pile A the starting number is 72)
3) Turn over one more card from pile A. This is the number of tens to subtract
(e.g.: If 3 is turned over number to be subtracted is 30.)
4) Predict the answer to the subtraction problem.
(e.g. Think "72 minus 30 is 42.")

5) Check the prediction on a calculator, or on a hundreds chart.

6) Turn over the next lot of cards and repeat

Things to try

-Time how long it takes you to complete steps 1- 5 ten times, then try to beat it next time.
-Record your subtraction problems in your recording book.
-Race against a partner using the same set of cards to call out, record and check the answers. The winner is the player who can correctly call out, model and record the most facts in their recording book.

NFA IND ACTIVITY
Addition & Subtraction

TAKE OFF TENS

F

Purpose
Practise subtracting multiples of ten from any two-digit number.

Materials
- Numeral cards
- Calculator
- Hundreds grid

Steps

1) Separate the cards into two piles. [1 to 5 in one pile (Pile A) and 6 to 9 in the other pile (Pile B).]

2) Make a two digit number by combining a card from pile A and pile B.
(e.g. if a 7 is drawn from pile B and a 2 is drawn from pile A the starting number is 72)
3) Roll the die and 'read' the number rolled as a multiple of ten e.g. 4 means 40.
4) Subtract this from the two-digit number e.g. 72 – 40, that's 32
5) Predict the answer to the subtraction problem.
(e.g. Think "72 minus 30 is 42.")

6) Check the prediction on a calculator, or on a hundreds chart.

7) Turn over the next lot of cards and repeat

Things to try

-Time how long it takes you to complete steps 1- 6 ten times, then try to beat it next time.
-Record your subtraction problems in your recording book.
-Race against a partner using the same set of cards to call out, record and check the answers. The winner is the player who can correctly call out, model and record the most facts in their recording book.

NFA IND ACTIVITY
Addition & Subtraction

ADD 20, 30, 40

F

Purpose
Practise adding multiples of ten to a two digit number.

Materials
- Numeral cards
- 20,30, 40 die
- Calculator
- Hundreds grid

Steps

1) Take out all the cards from 6 - 9 and the 0 cards, so you have only the cards 1, 2, 3, 4, & 5.
2) Shuffle these cards.
3 Turn over two cards to make a 2 two digit number, e.g. 27:
4) Roll the 20,30,40 die and add the result to the card number.
(e.g. If you roll a 30 the problem would be 27 + 30)
5) Check your prediction on a calculator or a 100 grid.
6) Turn over the next pair of cards and continue

Things to try

-Time how long it takes you to complete steps 1- 5 ten times, then try to beat it next time.
-Record your addition problems in your recording book.
-Race against a partner using the same set of cards to call out, record and check the answers. The winner is the player who can correctly call out, model and record the most facts in their recording book.

NFA IND ACTIVITY
Addition & Subtraction

PLUS MULTIPLES OF 10

F

Purpose
Practise adding ten and multiples of ten to 2 digit numbers.

Materials
- Numeral cards
- Calculator
- Hundreds grid

Steps

1) Separate the cards into two piles. [1 to 5 in one pile (Pile A) and 6 to 9 in the other pile (Pile B).]

2) Make a two digit number by combining a card from pile A and pile B.
(e.g. if a 7 is drawn from pile A and a 2 is drawn from pile B the starting number is 27)
3) Turn over one more card from pile A or B. This is the number of tens to add.
(e.g.: If 3 is turned over number to be added is 30.)
4) Predict the answer to the addition problem.
(e.g. Think "27 plus 30 is 57.")
5) Check the prediction on a calculator, or on a hundreds chart.
6) Turn over the next lot of cards and repeat

Things to try

-Time how long it takes you to complete steps 1- 5 ten times, then try to beat it next time.
-Record your addition problems in your recording book.
-Race against a partner using the same set of cards to call out, record and check the answers. The winner is the player who can correctly call out, model and record the most facts in their recording book.

NFA IND ACTIVITY
Addition & Subtraction

ADD TENS ON A NUMBER LINE

F

Purpose
Practise adding multiples of ten starting at two digit numbers.

Materials
- Numeral cards
- 10, 20,30, 40 die
- Calculator
- Hundreds grid

Steps

1) Take out all the cards from 6 - 9 and the 0 cards, so you have only the cards 1, 2, 3, 4, & 5.
2) Shuffle these cards.
3 Turn over two cards to make a 2 two digit number, e.g. 24:
4) Draw an open number line and place 24 on the number line
5) Roll the 10, 20,30,40 die and add the result to your starting number.
6) Make three 'jumps' of ten on the open number line to find the answer "34, 44, **54**. 24 + 30 = 54 (e.g. If you roll a 30 the problem would be 27 + 30)
7) Check your prediction on a calculator or a 100 grid.
6) Turn over the next pair of cards and continue

Things to try

-Time how long it takes you to complete steps 1- 7 ten times, then try to beat it next time.
-Record your addition problems in your recording book.
-Race against a partner using the same set of cards to call out, record and check the answers. The winner is the player who can correctly call out, model and record the most facts in their recording book.

NFA IND ACTIVITY
Addition & Subtraction

BRIDGING DECADES

G

Purpose
Practise bridging decades when adding two digit numbers.

Materials
- Numeral cards
- Calculator
- Hundreds grid

Steps

1) Separate the cards into two piles. [1 to 5 in one pile (Pile A) and 6 to 9 in the other pile (Pile B).]

2) Make a two digit number by combining a card from pile A and pile B.
(e.g. if a 7 is drawn from pile A and a 2 is drawn from pile B the starting number is 27)
3) Turn over one more card from pile A. This number makes the tens for the second number. E.g. 3 is 30.These three cards stay the same for the whole game.
4) Turn over a card from the B pile to make the last number. E.g. 8.
5) Figure out what decade the answer is going to be in. In this example it will be in the 60s.
6) Check your prediction using a calculator or hundreds grid and record in your recording book.
7) Turn over another last number. And continue over and over.

Things to try

-Time how long it takes you to complete steps 1- 6 ten times, then try to beat it next time.
-Race against a partner using the same set of cards to call out, record and check the answers. The winner is the player who can correctly call out, model and record the most facts in their recording book.

NFA IND ACTIVITY
Addition & Subtraction

100 OR BUST ADDITION

F

Purpose
Practise adding two digit numbers to 100.

Materials
- 100 or Bust recording sheet
- 1 Die
- Hundreds grid
- Counter

Steps

(One or two player game)

-The starting number is 0-

1) Each player takes a turn to roll the die.
2) Place the number rolled in either the tens or the ones column of the recording sheet.

(e.g. A three may be used as a 3 or 30)

3) Try to keep a running total of your score in your head- adding each number as you go.

(use a counter on a hundreds chart if needed)

4) Repeat for seven rolls.
5) The winner is the player who's total is the closest to **100** without going over.

NFA IND ACTIVITY
Addition & Subtraction

100 OR BUST SUBTRACTION

F

Purpose
Practise subtracting two digit numbers from 100.

Materials
- 100 or Bust recording sheet
- 1 Die
- Hundreds grid
- Counter

Steps

(One or two player game)

-The starting number is 100-

1) Each player takes a turn to roll the die.
2) Place the number rolled in either the tens or the ones column of the recording sheet.

(e.g. A three may be used as a 3 or 30)

3) Try to keep a running total of your score in your head- subtracting each number as you go.

(use a counter on a hundreds chart if needed)

4) Repeat for seven rolls.
5) The winner is the player who's total is the closest to **0** without going under.

NFA IND ACTIVITY
Addition & Subtraction

CARD COMBINATIONS TO 100

G

Purpose
Practise adding compliments to 100.

Materials
- Numeral cards
- Calculator
- Hundreds grid

Steps

1) Shuffle and place the number cards face down in a pile.

2) Turn over two cards and read as a two digit number.

3) Figure out how much more will be needed to make 100.

(Hint: make 90 with the tens and then figure out the rest of the units)

4) Make your prediction.

5) Check your prediction using a calculator or a hundreds grid.

6) Record the problem in your recording book.

7) Repeat with different cards.

Things to try

-Time how long it takes you to complete steps 1- 6 ten times, then try to beat it next time.
-Race against a partner using the same set of cards to call out, record and check the answers. The winner is the player who can correctly call out, model and record the most facts in their recording book.

NFA IND ACTIVITY
Multiplication and Division

Area Dice 10 5 2

E

Purpose
Practise multiplication facts of 10, 5 and 2

Materials
- 6 sided die
- 6 sided die—10, 10, 5, 5, 2, 2
- 2 playing boards

Steps

1. Choose a Dice Area game sheet
2. Roll the two dice and colour in the array on the game board. For example, if it shows 5 and 2 on the dice, then colour in a 5 x 2 array
3. Write the name of the array on the coloured array
4. Continue until you cannot colour in any more arrays

NFA IND ACTIVITY
Multiplication and Division

'One Table' Arrays

E

Purpose
To link skip counting and arrays to a times table and learn the multiplication facts for that table

Materials
- Grid Paper
- 10 sided die
- Table arrays

Steps

1. Write the number of the 'table' to practise on your grid paper e.g. 5s.
2. Roll the ten sided die.
3. Write the 'tables fact' for the number rolled and your 'practise' number. Predict the answer by skip counting. For example, if you roll 4, then they should write 4 x 5 = 20.
4. Then draw the array 4 x 5 on grid paper and check your answer by skip counting the rows of 5.
5. Repeat many times to build fluent knowledge of the 'one table'.

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Multiplication and Division

Name That Array

E

Purpose
To help link skip counting and arrays for one table e.g. the 5s (1 x 5, 2 x 5, 3 x 5, etc)

Materials
- Array cards for one table e.g. the 5s: 1 x 5, 2 x 5 through to 10 x 5

Steps

1) Spread out all the array cards for one table e.g. all the 5s arrays. The cards should be 'face up' to show the dimensions e.g. 2 x 5
2) Put the cards in order e.g. 1 x 5, 2 x 5, 3 x 5, etc.
3) Predict the answer for each card. For example, if the card shows 2 x 5, the reverse side of the card will have 10.
4) Then turn the card over to check your prediction. If you are correct, keep the card. If not, the card is placed in a pile 'To learn.'

NFA IND ACTIVITY
Multiplication and Division

Dividing It Up

F

Purpose
To practise sharing (dividing) a given number into equal groups

Materials
- 25 counters or tiles
- Cards labelled 10, 12, 15, 16, 18, 20, 4, 25
- Die—2, 3, 4, 5, 2, 3

Steps

1) Turn over a number card and count out that many counters, eg 20
2) Roll the die, eg 4
3) Now try to predict how many times you can share the counters into the number of groups shown on the dice, eg 20 shared into 4 groups
4) Using the counters, make groups to check your prediction
5) Use another number card and roll the dice again

NFA IND ACTIVITY
Multiplication and Division

Division with Array Cards

F

Purpose
To link division facts with known multiplication facts

Materials
- Array cards for one table

Steps

1) Spread out all the array cards for one table, eg all the ar rays for the multiplication facts of 5. The cards should be face down to show the total
2) Put the cards in order, eg. 5, 10, 15
3) Predict the division fact for each card, eg if the card shows 10, ask "how many rows of 5? 2"
4) Turn the card over to check your prediction.

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Multiplication and Division

No Remainders—10s and 5s

F

Purpose
To help divide by 10s and 5s

Materials
- 4 sets of numeral cards
- 4 extra '5' cards and 6 'zero' cards
- pencil and paper
- a calculator

Steps

1) Shuffle the cards and place them face down in a pile
2) Turn up two cards. Try to make a two-digit number that can be di vided by 10 and / or 5 without leaving any remainders.
3) Write the division fact. If the number can be divided by both 10 and 5, then write both division facts e.g. 30 ÷ 10 = 3, and 30 ÷ 5 = 6
4) Check the prediction/s on a calculator
5) If the number cannot be divided by 10 and / or 5, then turn over two more cards
6) Turn over the next lot of cards and continue

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Multiplication and Division

Dividing It Up With Leftovers

G

Purpose
To practise sharing a number into equal groups and remainders

Materials
- 25 counters or tiles
- Cards labelled 12-25
- Die labelled 2,3,4,5,9, 10

Steps

1) Turn over a number card and write that number, eg 21
2) Roll the die, eg 4.
3) Now try to predict how many times you can share the number on the card into the number of groups shown on the dice, eg 21 shared into 4 groups
4) Write the prediction as equal groups and remainders eg. 21 ÷4 = 5 and 1 remainder
5) Make the number of groups shown on your die using the counters to check your prediction.
6) Choose another card.

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Multiplication and Division

Remainder Game

G

Purpose
Remember multiplication and division facts with remainders

Materials
- Game sheet
- 6 sided Dice
- Counters
- Pencil

Steps

(This can be a one or two player game)

1) **Start on 26**
2) **Throw the dice and divide 26 by the number on the dice**
3) **Work out if the answer has a remainder or not.**
4) **Collect the number of counters equal to the remainders. If there are no remainders, don't collect any counters.**
5) **Move to the next number on the game board and repeat**
6) **Once all the numbers on the game board have been divided, count up your counters. This is your score.**

Extension: use a 10 sided dice

NFA IND ACTIVITY
Multiplication and Division

Use Tens To Find Nines

H

Purpose
To multiply by nine

Materials
- MAB 100 block
- Ten Sided Die
- Paper (to cover MAB block)

Steps

1) Roll the 10 sided die
2) Write the number you have rolled on the dice and multiply by 9, eg 3 X 9
3) Predict the answer by multiplying it by 10 eg 10 X 3
4) Then subtract one of the number rolled (the number that is not 9) eg 10 X 3—1 X 3
5) Use MAB to model this eg. 10 rows of 3 are 30, then subtract 3 to make 27
6) Check your answer by skip counting by 9's

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Multiplication and Division

Calculator Doubles

H

Purpose
To practise doubling numbers through to 100

Materials
- Cards 1-9
- calculator

Steps

1) Put the cards in a random order
2) Type into your calculator 2 x
3) Turn over the first card, eg. 3
4) Now type in the 3, eg 2 x 3
5) On your paper, write the problem and answer, eg.

```
  3
X 2
  6

 12
```

6) Double the answer, eg.
7) Check the answer by pressing the = sign on the calculator
8) Continue until you go past 100
9) Start again and repeat

NFA IND ACTIVITY
Multiplication and Division

Three Throw

H

Purpose
Work out larger multiplication facts

Materials
- Game Sheet
- 3 six sided dice
- counters

Steps

1) Roll 3 six sided dice and multiply the numbers together, eg. 4 x 3 x 2
2) Put a counter on the answer square on the game sheet
3) Try to get three counters in a line
4) If a counter is already on a number, you cannot place another one on it

NFA IND ACTIVITY
Multiplication and Division

Area Dice 9 4 3

H

Purpose
To remember harder multiplication facts

Materials
- 2 x 10 sided dice
- Two playing boards
- Pencil

Steps

1) Choose a game board from the Area Dice sheet
2) Roll the two dice. One of the numbers must be 9, 4 or 3
3) Make a multiplication problem with the two numbers on the dice eg 4 x 5
4) Colour in a matching array on the playing board
5) Write the name of the array (eg 4 x 5) on the array you have just coloured in
6) Continue until you have no more room

NFA IND ACTIVITY
Multiplication and Division

Area Dice 6 8 7

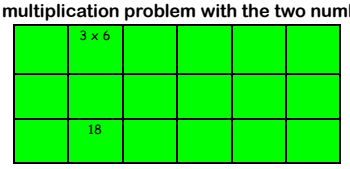
H

Purpose
To visualise and recall less friendly multiplication facts - 6s 8s & 7s

Materials
- 2 x 10 sided dice
- Playing board
- Pencil

Steps

1) Choose a game board off the Area Dice sheet
2) Roll the two dice
3) Make an multiplication problem with the two numbers on the dice



eg 3 x 6

4) Colour in a matching array on the playing board
5) Write the name of the array (eg 3 x 6) on the array you have just coloured in
6) Continue until you have no more room

- Continue until you have no more rectangles to colour
- You can change the numbers around to fit on the game board, eg3 and 6 could be 3 x 6 or 6 x 3

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Multiplication and Division

Fast Facts

H

Purpose
To practise multiplication strategies with friendly numbers

Materials
- 4 sets of numeral cards

Steps

1. Shuffle all cards and place in a pile face down

2. Turn over two cards, and figure out the product of the two numbers, eg. 2 and 5 is 2 x 5 = 10

3. Continue until all cards have been turned up

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Multiplication and Division

No Remainders

H

Purpose
To use division facts within 100

Materials
- 4 sets of numeral cards
- Pencil and paper
- Calculator

Steps

1) Shuffle the cards and place them face down in a pile

2) Turn over two cards. Try to make a two-digit number that can be divided without leaving any remainders., eg. With 2 and 7, you could make 27, as it can be divided equally by 3

3) Write the division fact, eg. 27 ÷ 3 = 9

4) Check the prediction on a calculator

5) Turn over the next lot of cards and continue

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Multiplication and Division

Multiplying With Teen Arrays

I

Purpose
To practise creating arrays for multiplying two 2 digit numbers in the teens

Materials
- Centimetre or millimetre grid paper marked out in tens
- A ten sided die

Steps

1) Roll the die twice to make two 'teen' numbers to multiply e.g. if you roll 6 & 7, then the numbers to multiply will be 16 & 17.
2) Draw an array to show the multiplication. Split the array into tens and ones. For example, for 16 x 17, split into 10 X 10 and 6 x 10, then 7 x 10 and 7 x 6 (see back of card for diagram)

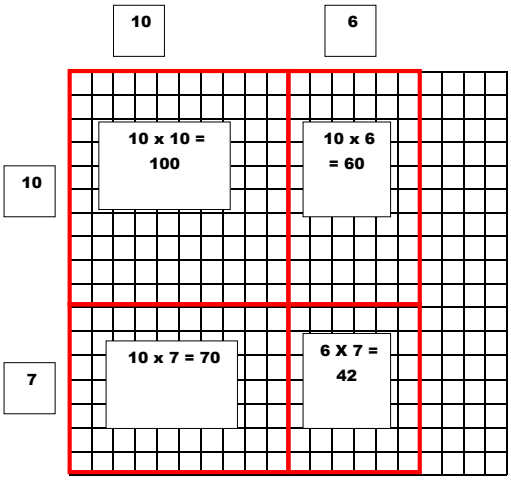
3) Name the amounts in the four sections of the array
4) Add the four sections of the array to find the total

NFA IND ACTIVITY
Multiplication and Division

Multiplying With Teen Arrays

1

Diagram



NFA IND ACTIVITY
Multiplication and Division

Multiplying With Open Arrays

1

Purpose
To practise creating open arrays for multiplying two 2 digit numbers

Materials
- Paper and pencil
- Ten sided die

Steps

- Roll the die four times to make two 2 digit numbers to multiply e.g. 26 & 27.
- If you roll a zero, then roll again.
- Draw an open array to represent the multiplication. Split the array into tens and ones as in the diagram on the back.
- Name the amounts in each of the four sections of the open array.
- Add the four sections of the open array to find the total e.g.: 400 + 120 + 140 + 42 = 702
- Name the amounts in each of the four sections of the open array.

Add the four sections of the open array to find the total e.g.:
400 + 120 + 140 + 42 = 702

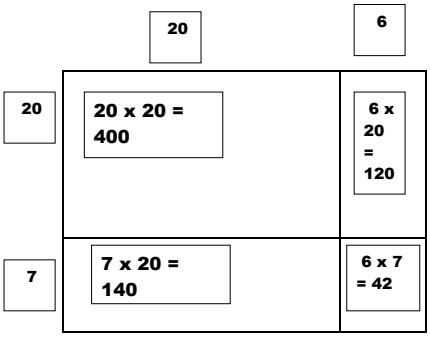
NFA IND ACTIVITY
Multiplication and Division

Multiplying With Open Arrays

1

Purpose
To practise creating open arrays for multiplying two 2 digit numbers

Materials
- Paper and pencil
- Ten sided die



NFA IND ACTIVITY
Multiplication and Division

Hex

1

Purpose
To practise multiplication with larger numbers

Materials
- Hex Gameboard
- transparent counters
- calculator

Steps

The aim is to connect a path from one side of the Hex Gameboard to the other

1) Pick any two of the numbers in the 'cloud' on the Hex Gameboard.
2) Multiply the numbers you pick
3) Find the answer on the Hex Gameboard.
4) Place a transparent counter on it
5) You can choose to 'square' just one of the numbers for your turn (multiply the one number by itself)
6) You can check your answers with a calculator.

- Name the amounts in each of the four sections of the open array.

Add the four sections of the open array to find the total e.g.:
400 + 120 + 140 + 42 = 702

NFA IND ACTIVITY
Multiplication and Division

1000 or Bust

I

Purpose
To practise reaching target numbers when multiplying and dividing in the hundreds

Materials
- Numeral cards (1 to 9 only)
- Calculator

Steps

1) Turn over one of the cards and type that number into the calculator
2) Choose from numbers 2, 3 or 4 to multiply that number by
3) Continue multiplying by either 2, 3 or 4 and get as close to 1000 as you can.

e.g.: I turn over a 6 and type that number into the calculator.
I choose x 3 which gets me to 18
Then x 3 which gets me to 54
Then x3 which gets me to 162
Then x 3 which gets me to 486
Then x 2 which gets me to 972

NFA IND ACTIVITY
Multiplication and Division

Calculator Doubles to Thousands

I

Purpose
To practise doubling numbers into the thousands

Materials
- Numeral cards (only 1—9)
- Calculator

Steps

1) Use cards 1 – 9 in a random order.
2) Turn over the 1st card. EG 3
3) Type into your calculator
   2 x the card value
   Eg 2 x 3
4) On your page write
   Start 3
   x 2
   predict 6
   predict 12
5) Check the answer by pressing the = sign on the calculator each time
6) Continue until you go past 2000
7) Start again with a different card

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Multiplication and Division

Squares

J

Purpose
To practise finding the square root of a number between 100 and 10 000

Materials
- The *Square Number Sheet*
- Calculator

Steps

1) Choose a number from the *Square Number Sheet* e.g.: 3136
2) Ask "What number multiplied by itself will make 3136?"
3) Predict the number using strategies such as "50 x 50 is 2500, and 60 x 60 is 3600. So the number must be in the 50s." Or "3136 ends with a six therefore the square root must end with either 6 or 4. Let's try 54."
4) Check your prediction using the calculator e.g.: 54 x 54 is 2916. Adjust your prediction e.g. "54 is too small. Now try 56 x 56 which is 3136."
5) Repeat with 5 other numbers from the *Square Number Sheet.*