Level 2 Maths Games & Practical Activities

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Counting

Resources needed: counters such as stones or bottle caps; dice; large number line to 20(made from paper); small number line to 20; number chart 1 – 50, Bingo Board 3 x 3.

Large number line

Small number line to 20

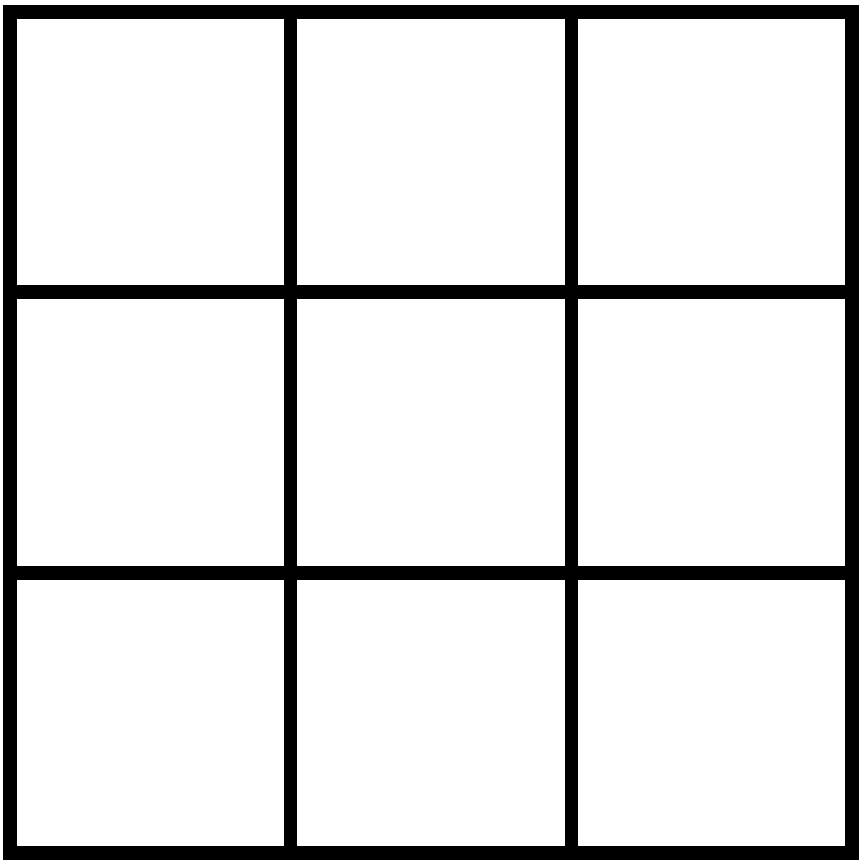
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

Number chart to 50

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Number Chart to 100

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



Bingo Board 3 x 3

Prepare different boards with random numbers like this:

24	27	35
41	19	29
51	48	26

What will the students learn?

- Number names and counting by ones to 50
- Counting objects to 50
- Number names and counting by ones to 100
- Counting *from* a given number, e.g. count *from* 15 *to* 41
- Counting by twos to 20
- Counting by fives to 50 using number chart
- Counting by fives and tens to 100 using number chart
- Counting backwards by ones from 20 to 0
- Ordinal number (1^{st}, 2^{nd}, 3^{rd}, 4^{th} etc.) to 20^{th}

Activity 1: Count to 50

Resources needed: 50 counters or a bead string

Count to 50 emphasising the ending sounds especially distinguishing between teen words (thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen) and 'ty' words such as twen**ty**, thir**ty**, for**ty**.

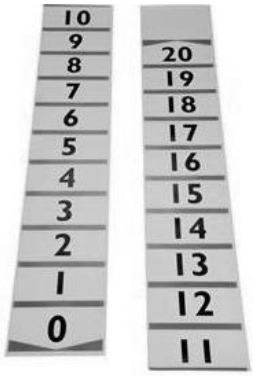
Activity 2: Longest Line Race

Resources needed: die, at least 30 beads and bead string (or counters)

Roll a die. Collect that number of beads (or counters). Thread them on to the string.
Roll the die again. Add beads. Repeat 3 times, adding beads each time.
Each student counts the total of beads on their string.
Ask, "Who has the longest line of beads (or counters)?"

Activity 3: Counting backwards from 20

Resources needed: Large number line 1 to 20
Ask students to start on 20 and step backwards to 1 as they count.



Activity 4: Counting 1 to 50 on the Number Chart

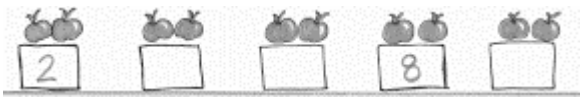
Resource needed: number chart 1 to 50, counters

Tell the students to place one counter on a given number, e.g. 20. Then tell them to place the second counter on another number that is at least 20 numbers apart, e.g. 42. They have to count between the two counters, starting from 20 and counting to 42.

Activity 5: Counting by 2s

Resource needed: counters

Give the students 10 counters each. Ask them to set them out in twos. Ask them to count the counters in twos. Teach the counting rhyme:
2, 4, 6, 8
10 mangoes on a plate
Increase the counters up to 20 and ask them to count by 2s.



Activity 6: Counting by 2s, 5s & 10s on the number chart

Resource needed: number chart 1 to 50

Ask students to count by 2s on the number chart. This is also called 'skip counting' because you skip every second number.
Then help them count by 10s and 5s to 50. They can colour the fives and tens columns.

Activity 7: Number chart counting to 100

Resource needed: number chart to 100
Help students count by ones, fives and tens to 100 on the number chart.

Activity 8: Number chart counting between numbers

Resource: number chart 1 to 100, counters

Tell the students to place one counter on a given number, e.g. 32. Then tell them to place the second counter on another number that is at least 50 numbers apart, e.g. 97. They have to count between the two counters, starting from 32 and counting to 97.

Activity 9: Number before and after on the number chart 1 to 50

Resource: number chart 1 to 50, counters

Ask the students to place ten counters randomly on the chart. They have to tell you what each number is. For each number you ask, "What is the number before? What is the number after?"
Extension: Ask, "What is the number that is 2 before? Then ask for 2 after?"

Activity 10: Number before and after on the number chart 1 to 100

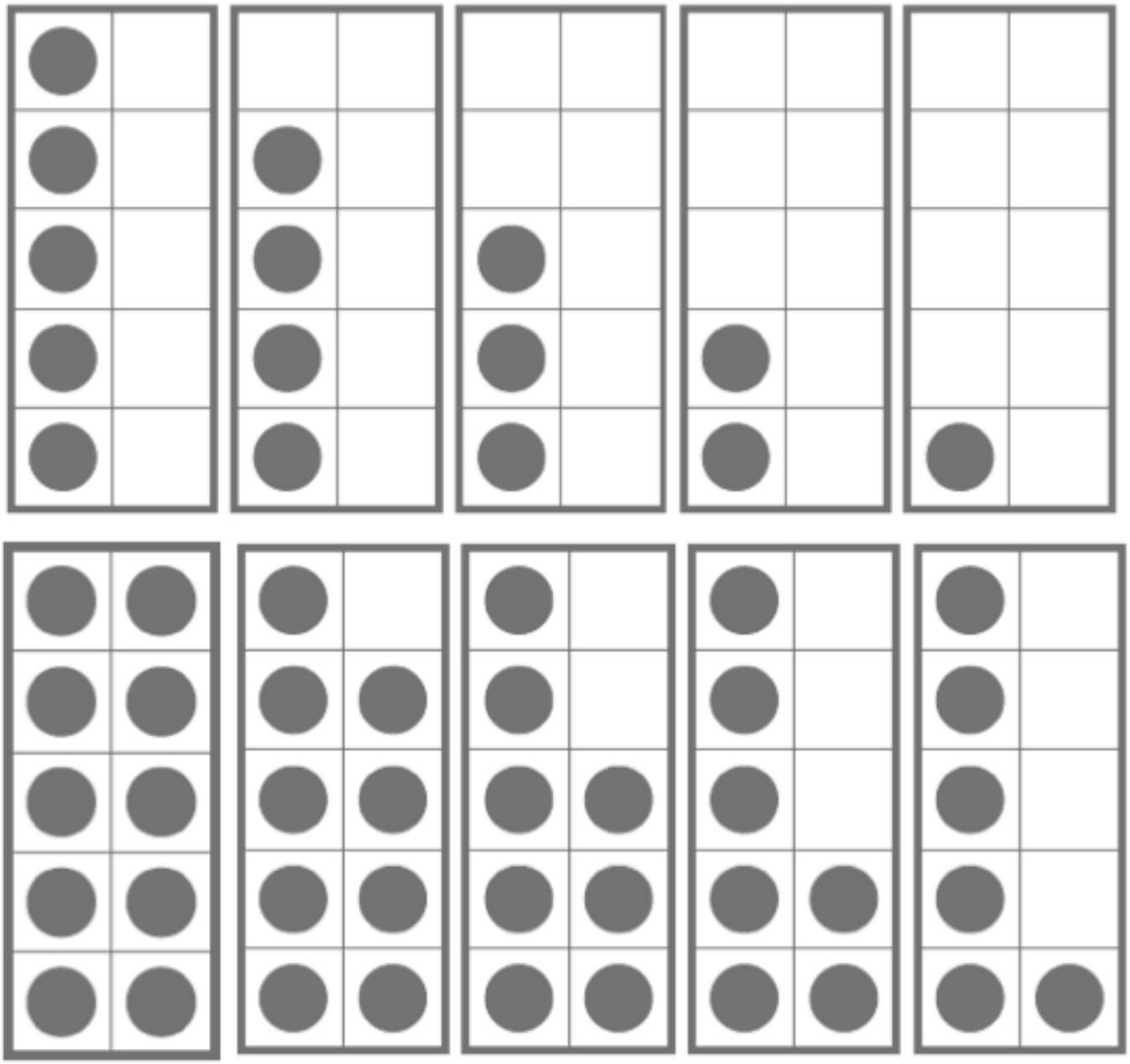
Resource: number chart 1 to 100, counters
Repeat Activity 9, but using the number chart to 100.

Activity 11: "number before" and "number after" Bingo

Prepare Bingo boards with random numbers between 20 and 50. (See page 3.)
The teacher calls out random numbers. If a player has the number **BEFORE** this number on the board, they cover this number with a counter. When a player has counters going 3 in a row, (horizontal, vertical or diagonal) they call "BINGO" and that player is the winner. Repeat this game with "number after".

Place Value

Resources needed: counters, bead string, number chart to 100, number cards, sticks or straws bundled with rubber bands in groups of 10; tens frames; flashcards showing word numbers one to twenty



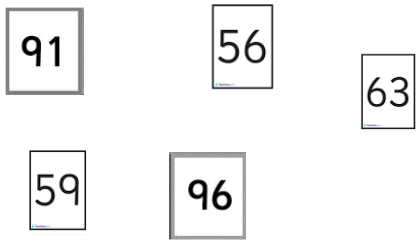
What will the students learn?

- Reading two-digit numbers (0 to 99)
- Writing two-digit numbers (0 to 99)
- Writing word numbers 1 to 99
- Ordering two-digit numbers (0 to 99)
- Bundling two-digit numbers, e.g. 35 = 3 bundles of 10 and 5 ones
- Using the number chart (0 to 120)
- Word numbers zero to twenty

Activity 1: Ordering numbers – Lucky Dip

Resources needed: number cards 50 to 100

Students sit in small groups. Each group has a set of number cards 50 – 100, in a container. The students close eyes and select 5 cards each from the container. They put them in order from lowest to highest. Repeat, putting them in order from highest to lowest.



Activity 2: Find the number

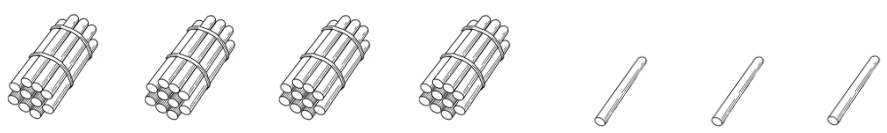
Resource needed: Bead string with beads set out in tens. Each group of ten is a different colour, (or use a line of counters, e.g. 10 white, 10 blue, 10 white, 10 blue etc.)

Call a number between 10 and 50. The student has to find that place on the bead string as quickly as they can.

Activity 3: Bundling tens and ones

Resources: straws or sticks in bundles of 10, extra single straws or sticks

Teacher calls a number between 10 and 99. The students can work in small groups. Each group has to make the number by selecting the right number of straws, e.g. for 43 they select 4 bundles of ten and 3 single straws.



Activity 4: Writing numbers to 99

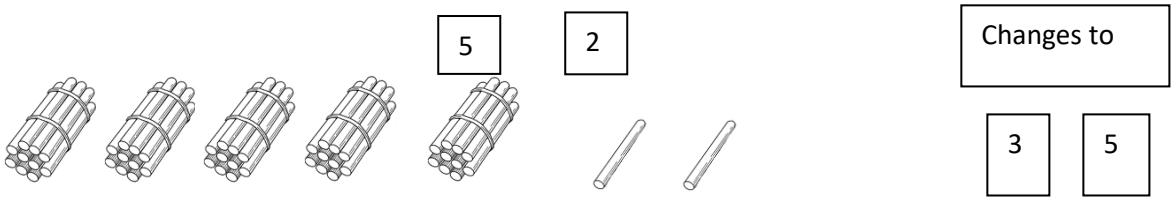
Resources: straws in bundles of ten plus single straws; paper and pens

Put out a number of straws bundled in tens and ones, e.g. twenty-seven, (2 bundles of ten and seven ones). The student has to write down the number of straws/sticks. Keep this going, making new numbers. The student can also have a turn at making the numbers with the straws/sticks.

Activity 5: Change Your Number: 2 players required

Resources needed: number cards 1 to 9, straws/sticks in bundles of tens & ones.
Have the number cards set out so that students can see the numbers. Ask one student to select two cards and make a 2-digit number, e.g. 5 and 2 to make 52. Ask the student to make this with straws, (5 bundles of ten and 2 singles). Another student selects one number and changes the 52 into another number, e.g. he might change the 5 to a 3 to make 32. He has to remove twenty straws to make 32.

Continue playing like this so each player has several turns.



Activity 6: In the Middle (for 3 players)

Resources: number cards 20 to 99

Students work in threes. Have number cards in a container, one container for each group of three students. Each player pulls out a card from the container, eyes closed. The players now must work together to put the three number cards in order from smallest to largest. The player who puts in the middle number gets a point. Repeat several times.
Play the game again, but this time the players must order the number from largest to smallest.

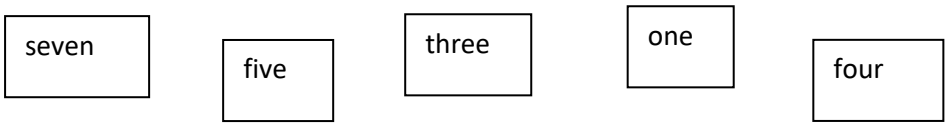
The winner!

1st player	2nd player	3rd player
27	**54**	**82**

Activity 7: Word numbers one to ten

Resources: flashcards with word numbers one to ten; number cards 1 to 10

Help students to match number cards with word cards.
Now set out the word cards in random order. Use a pointer and point randomly to the word cards while saying, “Tic tac toe, here I go, where I land I do not know.” The student has to read aloud the word number that you land on.



Once word numbers to ten are well-known, teach word numbers to twenty the same way.

Activity 9: Word numbers and tens frames

Resources needed: *flashcards with word numbers one to twenty; tens frames*

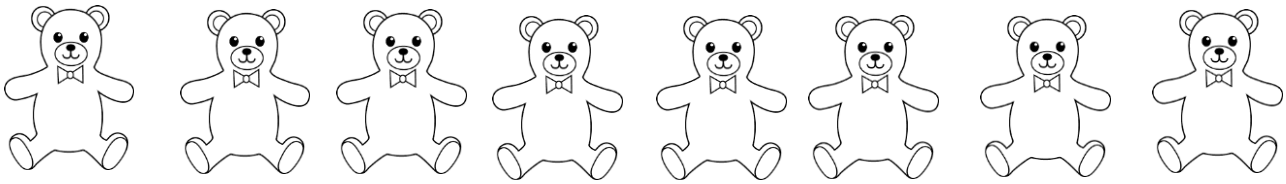
Set out the word cards in order from one to twenty. Now ask the students to match each number with tens frames.

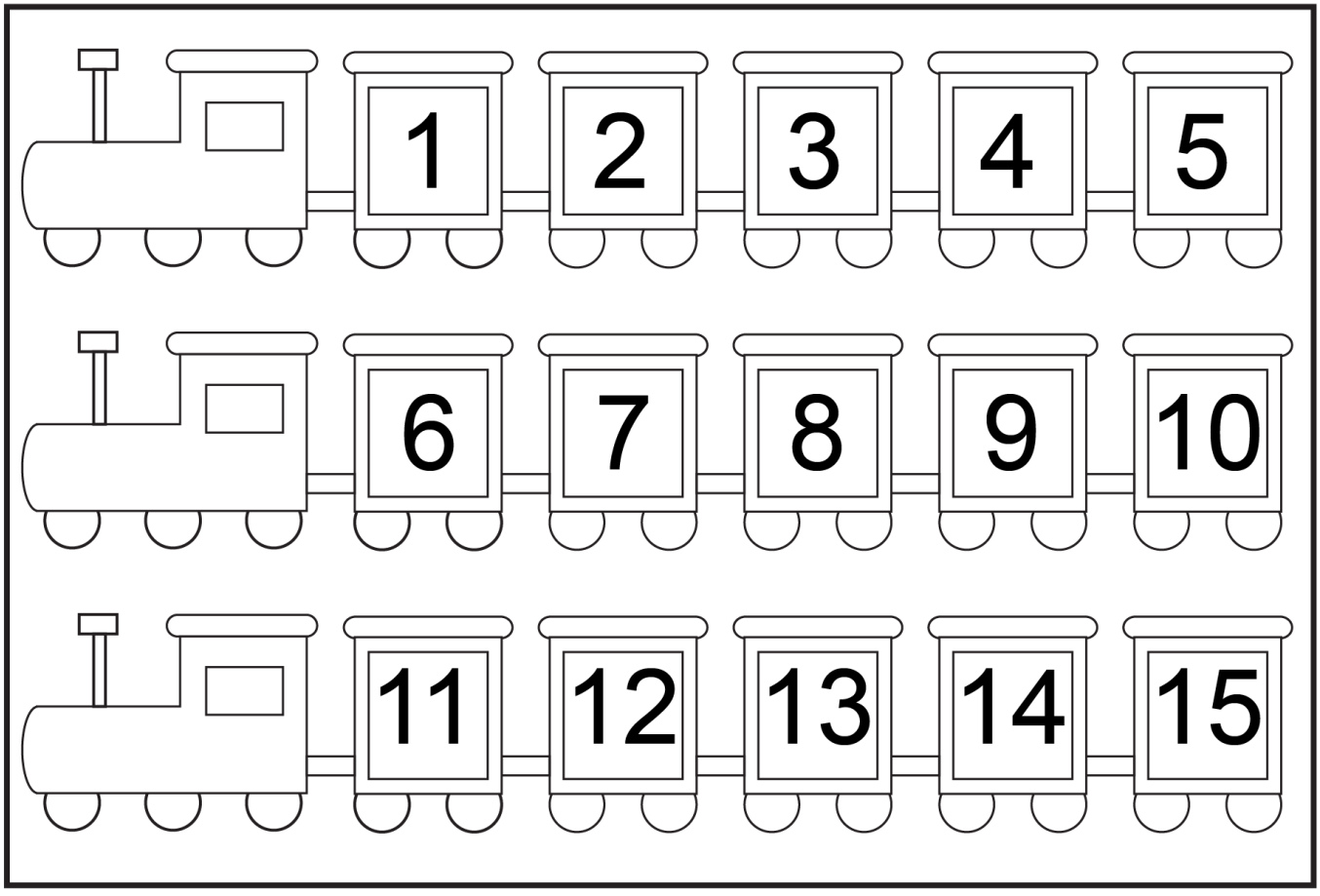
Activity 10: Words for twenty, thirty, forty, fifty, sixty, seventy, eighty, ninety

Resources needed: Word number flashcards listed above and matching number cards
Students can match number cards with word cards.

Addition and Subtraction

Resources needed: counters; teddy picture cut-outs; train picture; large number line to 20; addition chart; margarine/yoghurt container; number cards; board game

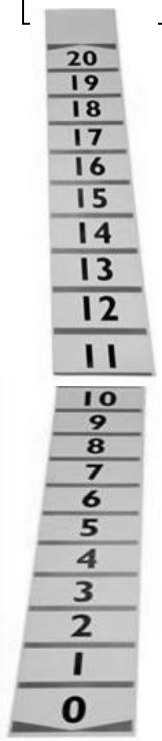




What will the students learn?

- 'Counting-on' from a number to find the total
- Using the number line to 20 for addition and subtraction
- Using the terms 'plus' and 'equals'
- Using tens frames to find the missing numbers
- Visualizing numbers

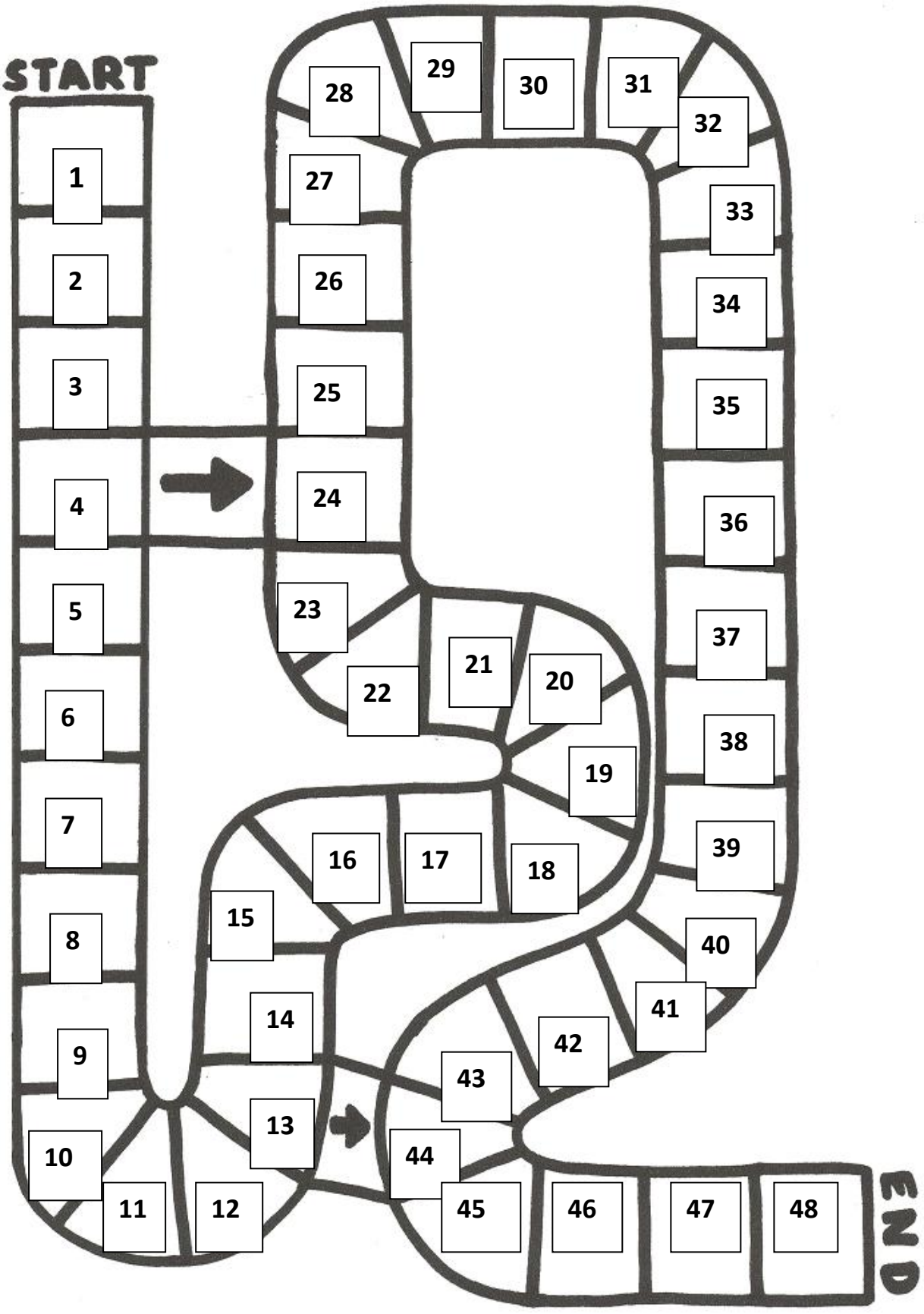
Large walking number line to 20



Addition Chart

+	2	3	4	5
2				
3				
4				
5				

Board Game 1 - 48



Activity 1: What is equal?

Resource: counters

Discuss the meaning of 'equal', e.g. 2 rulers the same length.
Ask the students to make 2 groups of counters with an equal number in each.
Put a paper 'equals' sign between the 2 groups (=)

Activity 2: Move the Teddies

Resources needed: die, 12 teddies – (6 of the teddies are red and 6 are green); 'Plus' and 'Equals' signs on small cards or separate pieces of paper

Roll a die. Put out this number of red teddies. Roll the die again and put out this number of green teddies. Move the 2 groups of teddies together.

Use the number cards, the 'plus' and 'equals' signs, to make an equation that shows what you did with the teddies.

Activity 3: More teddies on the train

Resources needed: at least 20 teddies; train

Ask students to put 8 teddies on the train. Then say, "3 more teddies got on. How many now?"
Show this as an equation: 8 + 3 = 11
Repeat with other examples.

Activity 4: Some teddies got off

Resources needed: at least 20 teddies; train

Ask students to put 8 teddies on the train. Then say, "3 teddies got off. How many now?"
Show this as an equation: 8 - 3 = 5
Repeat with other examples.

Activity 5: Number line addition

Resources: Large number line to 20

Ask the student to stand on a number and then step forwards a given number, e.g. “Start on 4. What is 2 more than 4?” Ask child to say it as a sum e.g. 4 plus 2 equals 6. Continue with different examples.

Activity 6: Number line subtraction

Resources: Large number line to 20

Ask the student to stand on a number and then ask him/her to step backwards a given number, e.g. “Start on 8. Go back 3 steps. Ask, “What is 3 less than 8?” Ask the student to say it as a sum e.g. 8 take away 3 equals 5. Continue playing the game several times.

Activity 7: Addition chart

Resource: Addition chart (See page 11)

Students can use counters to add 2 numbers together, and fill in the totals on the chart.

Activity 8: Count-on two: numbers to 10

Resources: 2 lucky dip containers with number cards 1-10

Make 2 teams. One at a time, each team member pulls out a number (eyes closed), says the number and adds on 2. One team point for each correct answer. The first team to score 5 points wins.

Extension: play same game but add on 3.

Activity 9: Count-on two: numbers to 20

Resources: Number cards 10 to 20, number line 1 to 20

Repeat Activity 9 using numbers to 20.

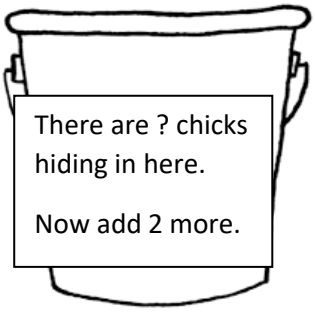
Activity 10: The Big Bucket

Resources: container to represent the bucket.

Tell the students that there are some pretend chicks in this container. Ask them how many they think there might be, e.g. They think that there might be "5".

Then you say that you're going to add 2 more chicks. Ask the students to count-on to work out how many altogether.

Now try again and ask them to add on 3, then 4.



Activity 11: Counting-on board game

Resources: Die, 2 counters of different colours, Board game 1 to 48 (See page 12.)

Students take turns to roll the die and move their counter according to the number on the die. The first to reach 20 wins. When they are almost at the finish, they have to roll the die with the exact number to get to the end.

Multiplication and Division

Resources needed: counters, plates, pencil and paper

What will the students learn?

- Counting objects by twos
- Making sets or groups as directed, e.g. 3 sets of 2
- Sharing objects between groups, e.g. share 9 pencils between 3 students

Activity 1: What Comes in 2s?

Resources: counters, pencils and paper, counters

Ask student what comes in 2s (or pairs)? e.g. socks, human legs, eyes, hands, bicycle wheels, slices of bread for a sandwich.

Make a list or draw pictures of items that come in pairs.

Ask, "Show me what 5 pairs of shoes would look like, using counters." Count in twos.

Now set out 20 counters and ask student to put them into groups of 2. They can count them by 2s. Change the number of counters, (any even number of counters under 20.)

Activity 2: Wheels and animal legs

Resource: counters, pencils, paper

Ask students what comes in set of 4, e.g. animal legs, wheels.
Ask the students to use counters to show how many wheels are on 3 cars.

If using bottle tops, they could draw the cars and place the lids on as wheels.
Give them practice with other examples, such as:
How many wheels of 5 trucks?
For drawing:
How many legs on 4 horses?
Make up other animal leg challenges:
Birds – 2 legs
Insects – 6 legs
Spiders – 8 legs

Activity 3: 12 Teddies at 4 Tables (division)

Resources: counters and plates and/or pencils and paper

Tell the student that 12 counters are 12 teddies, and the 4 plates are 4 tables at a café. Say that 12 teddies sat down at 4 tables at the café. Ask how many teddies would be at each table if there were the SAME number at each table. They can draw a picture or use counters and plates to represent the tables.

Activity 4: 12 Teddies at 3 Tables

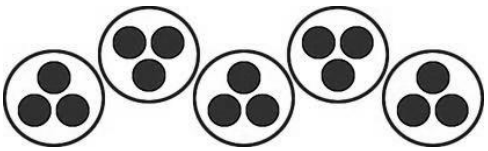
Resources: counters and plates and/or pencils and paper

Repeat Activity 3, but this time there are 12 teddies at 3 tables.

Activity 5: Making sets (multiplication)

Resources: paper plates, counters

Give the student plenty of practice in making sets, e.g. 5 sets of 3. They put out 5 plates and put 3 counters on each plate. How many altogether?



Note: You can use circles of string to represent the sets, instead of plates.

Activity 6: How many groups? (Division)

Resources: counters

Give the student plenty of practice in working out division problems. They must use counters, e.g.
15, how many 3s? (They take 15 counters and make them into groups of 3)
12, how many 4s?

Activity 7: Revision

a) Draw 16 strokes on a piece of paper. Say, “Here are 16 legs. How many horses?”
b) Give the student 15 counters. Say, “Here are 15 pencils. Share them between 5 children.”