Level 1 Maths Games & Practical Activities

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Counting

What will the students learn?

- Number names to 10 – counting forwards
- Number names to 20 – counting forwards
- Counting backwards from 10 to 0
- Counting objects to 10
- Counting objects to 20
- Number line to 10
- Number line to 20
- The number in-between two numbers
- Ordinal number: 1st, 2nd, 3rd, etc.

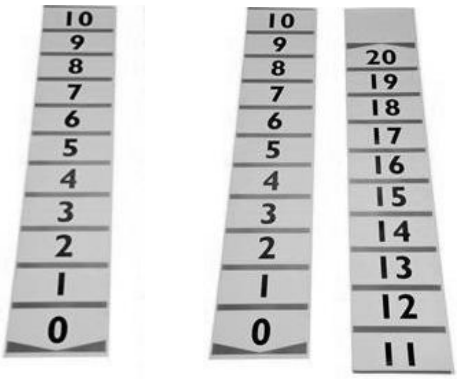
Resources needed: counters such as stones or bottle caps; dice; cups or margarine containers; large number line to 20 (made from paper); small number line to 20.

Large number line

Small number line

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

Activity 1: Count-Walk



Count-walk to 10

Resources needed: Large 1-10 number line

Ask students to walk along the number line, counting 1-10.

Count-walk races to 20

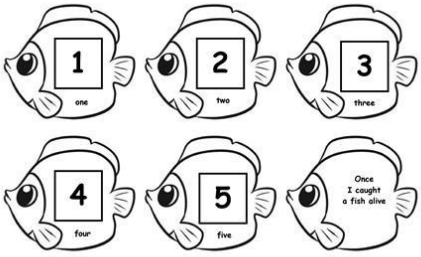
With two number lines and two students, each student throws a die and takes the number of steps shown on the die. See who can get to the end first.

Activity 2: Counting rhymes

Number Rhymes/Poems

Examples:

1, 2, 3, 4, 5



Once I caught a fish alive
6, 7, 8, 9, 10
Then I let him go again
Why did I let him go?
Because he bit my finger, so
Which finger did he bite?
This little finger on the right.

One potato, two potato

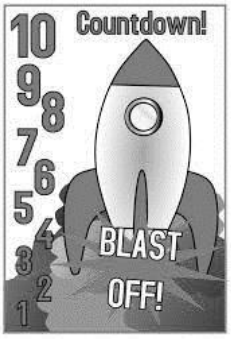
Three potato, four,
Five potato, six potato,
Seven potato, more!
Eight potato, nine potato
Now we're up to ten
Eleven potato, twelve potato
Time to start again

Activity 3: Hop and stop

Teacher gives instructions: e.g. 6 hops, 4 jumps, 5 claps, 3 knee pats etc.

Simon Says: Make it into a game of Simon Says. E.g. Simon says, "3 hops"; Simon says "4 jumps" but if Simon doesn't say to do it and the child does the action, he/she is "out".

Activity 4: Counting backwards from 10



Rocket blast-off:
10, 9, 8, 7, 6, 5, 4, 3, 2, 1, **0 (blast-off)**

Activity 5: The number in-between

Resources needed: Number chart 1 to 20
For a class, each student can have their own small number line.

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

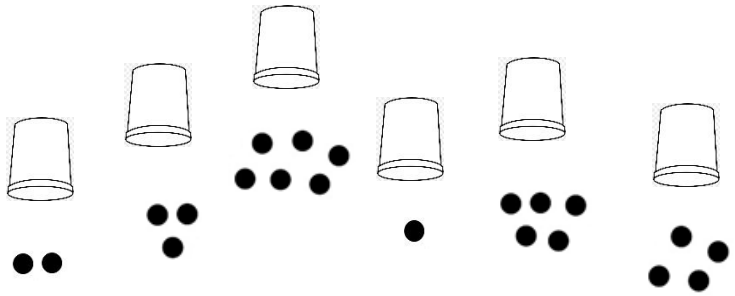
Ask the student to find a given number on the number chart, e.g. "Put your finger on 8. Now put your finger on 10. What is the number in-between 8 and 10?"
Now give them different examples, e.g. "What is the number in-between 16 and 18?"

Activity 6: Find the right number of counters

Resources needed: counters, die, empty margarine containers or paper cups

Take 6 containers or paper cups. Hide different numbers of counters under these, (between 1 and 6 counters under each container).
Ask the student to roll a die.

They must find the collection that matches the number of dots on the die. Repeat several times.



Activity 7: Counting things to 20

Resources needed: counters or objects

Each student has 20 counters. When the teacher calls a number, the students must quickly set out that number of counters.

Activity 8: Count around the circle

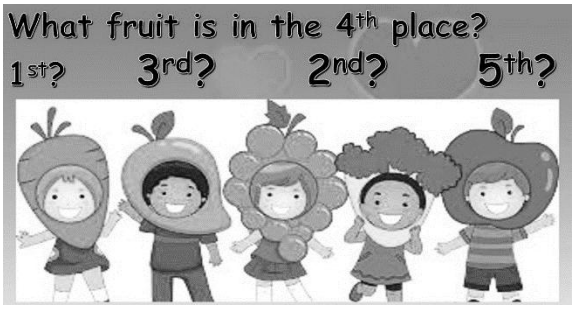
Resources needed: counters

Students sit in a circle. The teacher chooses a child to start the count. First person says 'one', second person says 'two', third person says 'three' … up to 20.

Activity 9: Ordinal number (1st, 2nd, 3rd, 4th, 5th etc.)

Resources needed: counters or any objects

Put 10 objects (or children) in a row. Say, "Show me the 3rd one; show me the 9th one" etc.



Place Value

Resources needed: dot cards, counters, empty containers, dice or spinners, tens frames

Dot cards

Copy onto card and cut up each square. Increase to A3 for larger cards.

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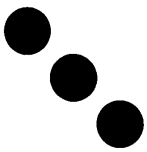
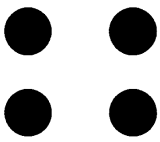
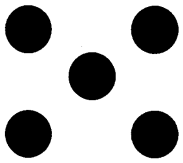
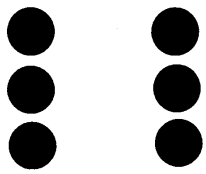
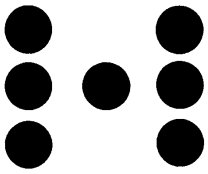
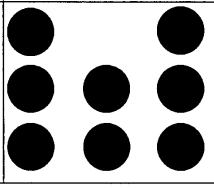
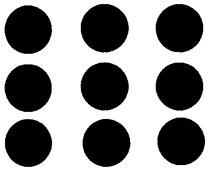
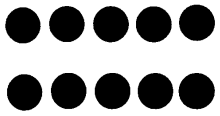
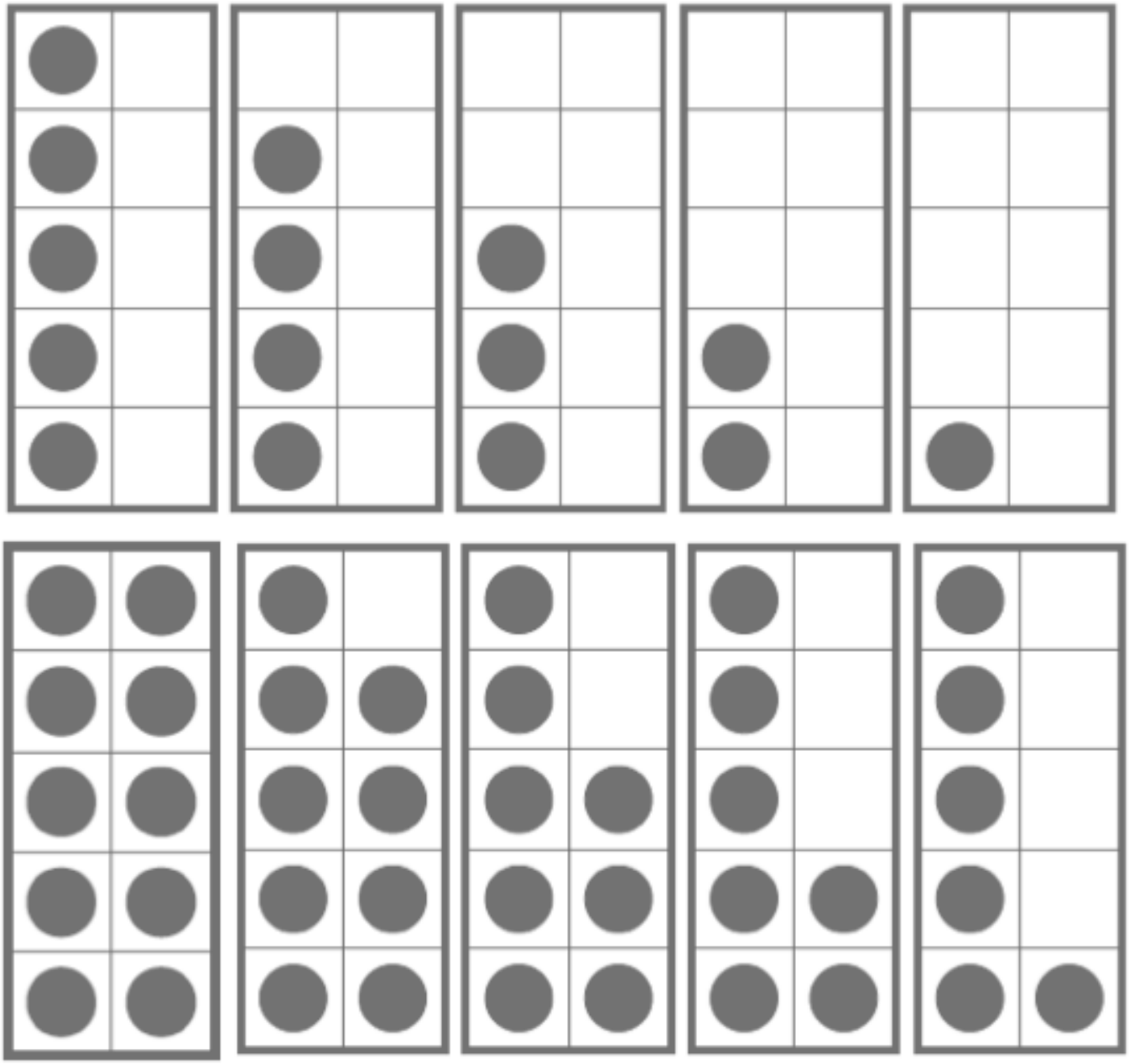
				
6	**7**	**8**	**9**	**10**
				

Make this spinner with cardboard and place a toothpick in the centre so that it will spin.

Tens Frames

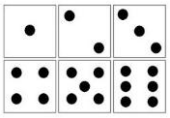


What will the students learn?

- Reading single digit numbers 0 to 20
- Writing single digit numbers 0 to 20
- Ordering single digit numbers 0 to 20
- Arranging numbers smallest to largest and largest to smallest 1 to 20

Activity 1: Quick as a Flash

Resources needed: Dot cards 1 to 10

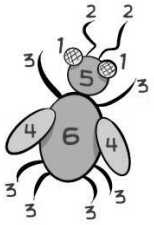


The teacher randomly show dot cards (0 to 6).
Say, "Tell me how many dots as quick as a flash."

Once students can do this very well, try them with dot cards 1 to 8, and then dot cards 1 to 10

Activity 2: Beetle game

Resources needed: one die; pencil and paper
Two or more players required.
The aim of the game is to be the first to complete a Beetle. Each student takes turns to roll of the die. According to the number they roll, they can draw a particular body part as follows:
6 = body, 5 = head, 4 = wings, 3 = legs, 2 – feelers, 1 = eyes

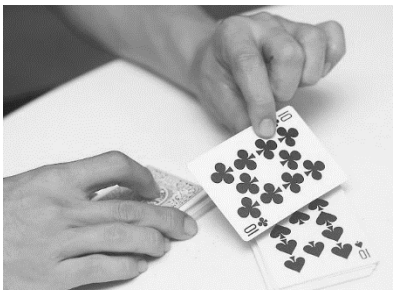


The body must be drawn before the other body parts are added to it. Players must therefore roll a 6 to start. Once the body has been drawn, the other parts of the beetle may be added in any order.

Activity 3: Snap

Resources: Number cards and Dot cards 1 to 10, (or playing cards)

Two or more players required.
Each student has a handful of number cards and dot cards, (equal number of cards each).
The first student puts a card down face up. Then the second puts one of their cards on top of it.
The student calls 'Snap' when the same card follows the next one.



Activity 4: Remember how many counters

Resources: counters, empty container, die or spinner

Put out three groups of counters, (between 1 and 6 in each group). While the students watch, cover one of the groups of counters with a container. Students must remember the number of hidden counters. Roll a die.
They have to clap when the number on the die matches the number of counters under the container. The first to clap wins. (Give them a counter)
Repeat several times, changing the number of counters in the groups.

Activity 5: It's a Match

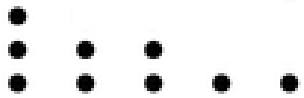
Resources: a die or 6-sided spinner, number cards 1 to 6 and dot cards 1 to 6.

Set out the number cards and dot cards so that the students can see them. They take turns to roll the die or spin the spinner. They pick up a number card or a dot card that matches the number on the die or spinner. Keep going until all the dot and number cards have been collected. The student with the most cards wins.

Activity 6: What's the Order?

Resources: Lucky dip bucket with number cards 1-10, counters

Each player selects a number card from the lucky-dip bucket, (eyes closed). The players have to make line of that many counters.
Each player has 3 turns, so each player has 3 lines of counters. The players have to put the lines in order smallest to largest, (with the shortest line at the top, and the longest line at the bottom).



Activity 7: In the Middle (for 3 players)

Resources: number cards 0 to 9

This game can be played in a group of 3.
Set out the cards (0 to 9) face down. Each player selects a card. The players now have to work together to put the three number cards in order from smallest to largest. The player who puts in the middle number is the winner for this round and gets a point. Repeat several times.

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	The winner!	
1	5	7
1st player	2nd player	3rd player

Play the game again, but this time the players have to order the number from largest to smallest

Activity 8: Beads string number find

Resource: Bead string, one per student, (coloured beads arranged in tens, e.g. 10 yellow, 10 blue, 10 green.) or set out counters in a line – e.g. 10 white, 10 blue

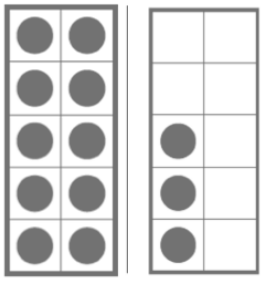
Say to the student: e.g. "Find 18!" The students must quickly find the 18th bead without having to count the first ten. Continue, asking them to find the place for other numbers up to 20.

If you don't have a bead string you can use a line of counters of 2 different colours.

Activity 9: Using tens frames to make 'teens'

Resource: tens frames 1 to 10 and plenty of whole tens.

Call out numbers 11 to 20 and students make the number using tens frames, e.g. "13" shown here.



Addition and Subtraction

Resources needed: dice; counters; bottle caps or pop-sticks that have been painted on **one** side. *(You can use a permanent marker instead of paint*); board game I - 20

These bottle caps are yellow but painted green on one side.

What will the students learn?

- Counting two groups of objects: how many altogether?
- Addition with counters up to 20: Put out 2, and now 3 more. How many altogether?
- Subtraction with counters up to 20: Put out 12, and take away 3. How many now?
- Terms for addition and subtraction: “and”, “take away”, “makes”. (Don’t use the words ‘plus’, ‘minus’ or ‘equals’ at this stage.)
- More than/less than
- Using the number line 1 to 10 for addition, e.g. 2 and 2 more
- Using the number line 1 to 10 for subtraction, e.g. 7, go back 3
- Extend to 1 to 20 on the number line
- “Counting-on”: When adding and subtracting on the number line, you don’t count the number you start on.

Board Game 1 - 20

Activity 1: How many altogether? (addition)

Resources: Die and counters

Roll a die. Put that many counters together in a group. Role the die again and put out that many counters, but in a different group. Tell a story about joining the 2 groups together, e.g. "Let's pretend that this group of counters are apples and this group of counters are bananas. We put them together in a bowl. How many pieces of fruit altogether?"

Activity 2: Painted bottle caps or pop-sticks (addition)

*Resources needed: bottle caps or pop-sticks that have been painted on **one** side. (You can use a permanent marker instead of paint), e.g. black and blue*

Give children about 6 bottle caps (or sticks) each.
They shake them in their hands and tip them on the table.
How many black bottle caps can you see? How many blue?

Put coloured and uncoloured into 2 groups. Which has *more*? Which has *less*?
How many altogether?

Activity 3: Adding more (addition)

Resource needed: counters

Ask student to set out a number of counters, e.g. 6. Say, "Now add 3 more. How many altogether?" (9)

Repeat with different numbers 1 to 10.
Then give them similar addition problems with numbers to 20, e.g. "13 counters. Now add 5 more. How many altogether?" (18)

Activity 4: addition with counters using "and"

Resources needed: counters

Ask students to use counters to solve addition problems with counters
e.g. 5 *and* 3 *makes*? (They set out 5 counters in one group, 3 counters in another group, and push them together.)

Activity 5: 'Counting-on' board game

Resource: Die, 2 counters of different colours, Board game 1 to 20 (See resources above)

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.

Activity 6: Number line addition

Resource needed: large number line to 20

Ask the student to stand on a number on the large number line, e.g. "Stand on 3". Say, "3 and 2 more". They step forward and land on 5. Say, "3 and 2 more makes 5".

Give plenty of practice with different examples.

Start by working with numbers to 10. Then increase numbers to 20.

Activity 7: Some Went Away (subtraction with numbers to 10)

Resource: Counters

Ask the student to put out several counters on the table, e.g. 9. Now ask them to take some of them away, e.g. Take away 6. How many are left? (3) Tell a story about what you just did, e.g. I had 9 pencils but I gave 6 away. Now I only have 3.

Continue with similar subtraction problems with numbers 1 to 10.

Then give them problems with numbers to 20, e.g. "19 counters. Now take 7 away. How many altogether?" (12)

Activity 8: More Subtraction problems

Resource: counters

Ask the students to solve subtraction problems with counters. Use the words "take away" and "makes", e.g. 12 *take away* 4 *makes* 8.

Activity 9: Number line subtraction

Resource needed: large number line to 20

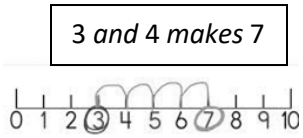
Ask the student to stand on a number on the large number line, e.g. “Stand on 7 and go back 2”. They step backwards and land on 5.
Say, “7 take away 2 makes 5”.

Give plenty of practice with different examples.
Start by working with numbers to 10. Then work with numbers to 20.

Activity 10: Number line addition and subtraction

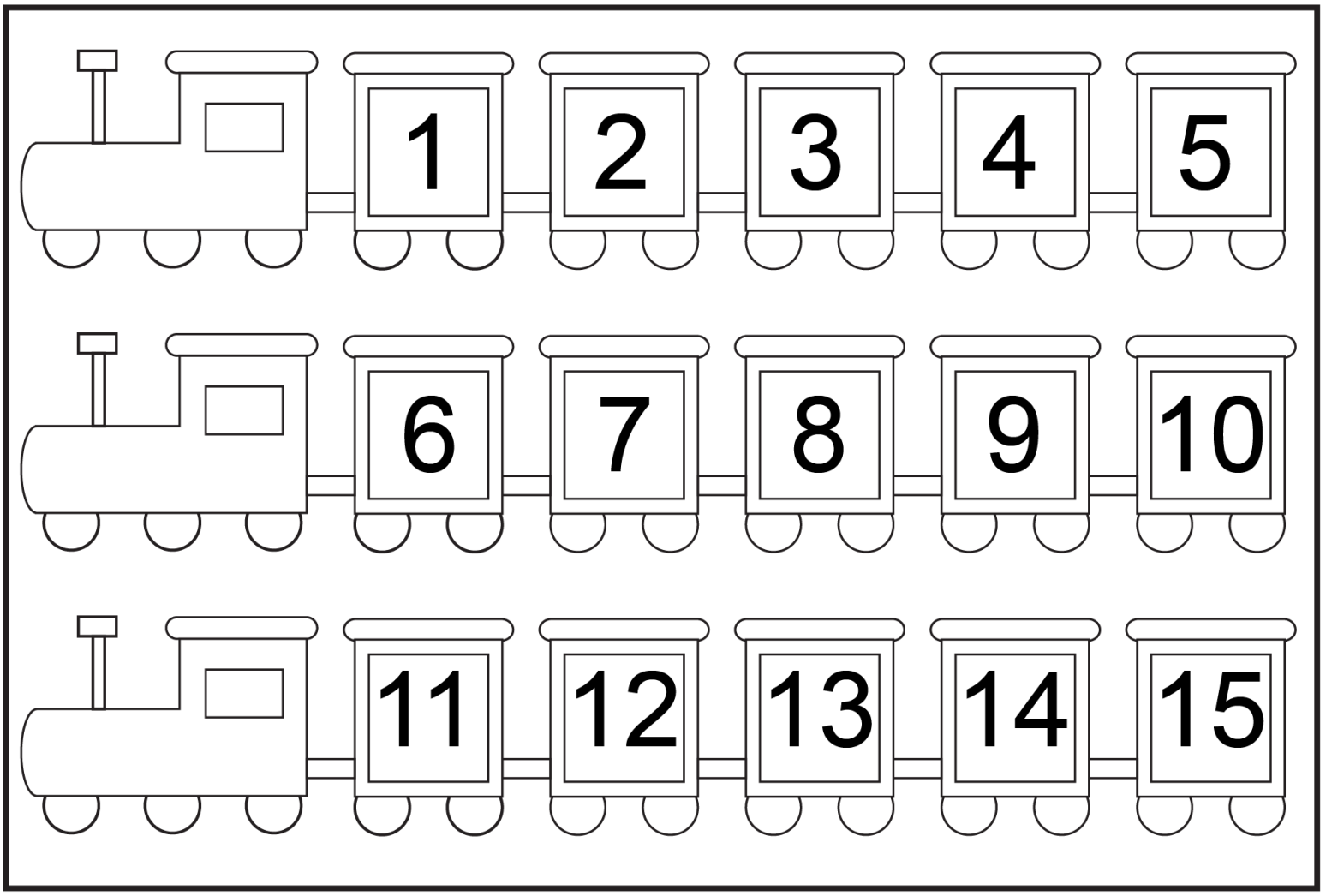
Resources needed: small number lines 0 to 10 and 0 to 20

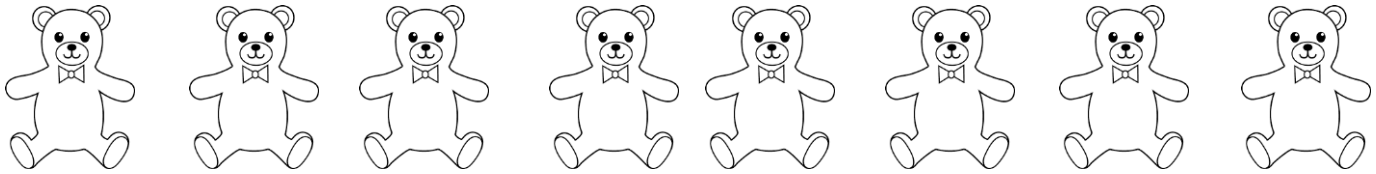
Give the students addition and subtraction problems similar to those on the large number line, but instead use the small number lines. Be sure that they ‘count on’. They do not count the number they start on.



Multiplication and Division

Resources needed: counters, pictures of train with carriages; cut-out pictures of teddies, 6-sided spinner





What will the students learn?

- The meaning of a group or set
- Finding how many objects are in a group
- Finding out the total of objects on several groups

Activity 1: What Comes in Groups?

Resource: counters

Ask the students what comes in groups, sets, in bunches, in packets? e.g. pencils, wheels, fruit, biscuits, people, birds.

Activity 2: Make 2 groups (Multiplication)

Resource: counters

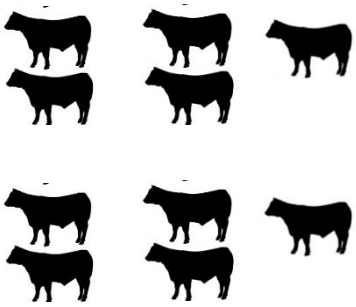
Tell the students to pretend that the counters are cows. Ask them to make a group of 5 cows.

Ask the students to make another group of 5 cows.

How many groups of cows? (2)

How many in each group? (5)

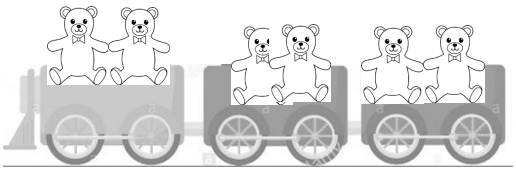
How many cows altogether? (10)



Activity 3: Train activity (Multiplication)

Resources: Pictures of train with carriages; cut-out pictures of teddies

Make a train with three carriages. Roll a die. Put that many teddies in each carriage. How many teddies on the train altogether? What is the total of teddies? Repeat with different numbers of teddies and carriages.



Activity 4: What Comes in 2s?

Resources: counters, pencils and paper

Ask the students "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.

Activity 5: Teddies and their Legs (multiplication)

Resources: Pictures of teddies

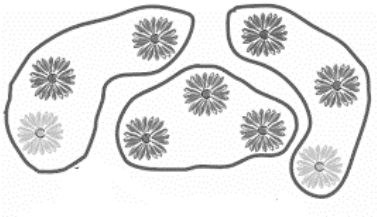
Use pictures of teddies. Hand out a different number of teddies to each student.
Ask, "How many legs altogether?" "How many lots of 2?"
Repeat several times by giving students a different number of teddies.

Activity 6: Teddies and their Arms

Resources: Pictures of teddies, spinner

Use a 6-sided spinner with the numbers 4, 6, 8, 10, 12 and 14. Ask students to spin and read the number. Show them the teddies. Explain that the number on the spinner tells us the number of teddy's arms. Ask them to collect the number of teddies needed to make that number of arms. Repeat.

Activity 7: Making groups



Ask the students to:

a) Make a group of 3
b) Make another group of 3
c) Make another group of 3

Ask: How many groups? How many in each group? How many altogether?
Repeat with similar examples, with totals no higher than 20.

Activity 8: Drawing groups of things

a) Draw 3 sets of pencils, with 5 in each set. How many altogether?
b) Draw 4 bags of 5 bananas. How many altogether