

Year 1

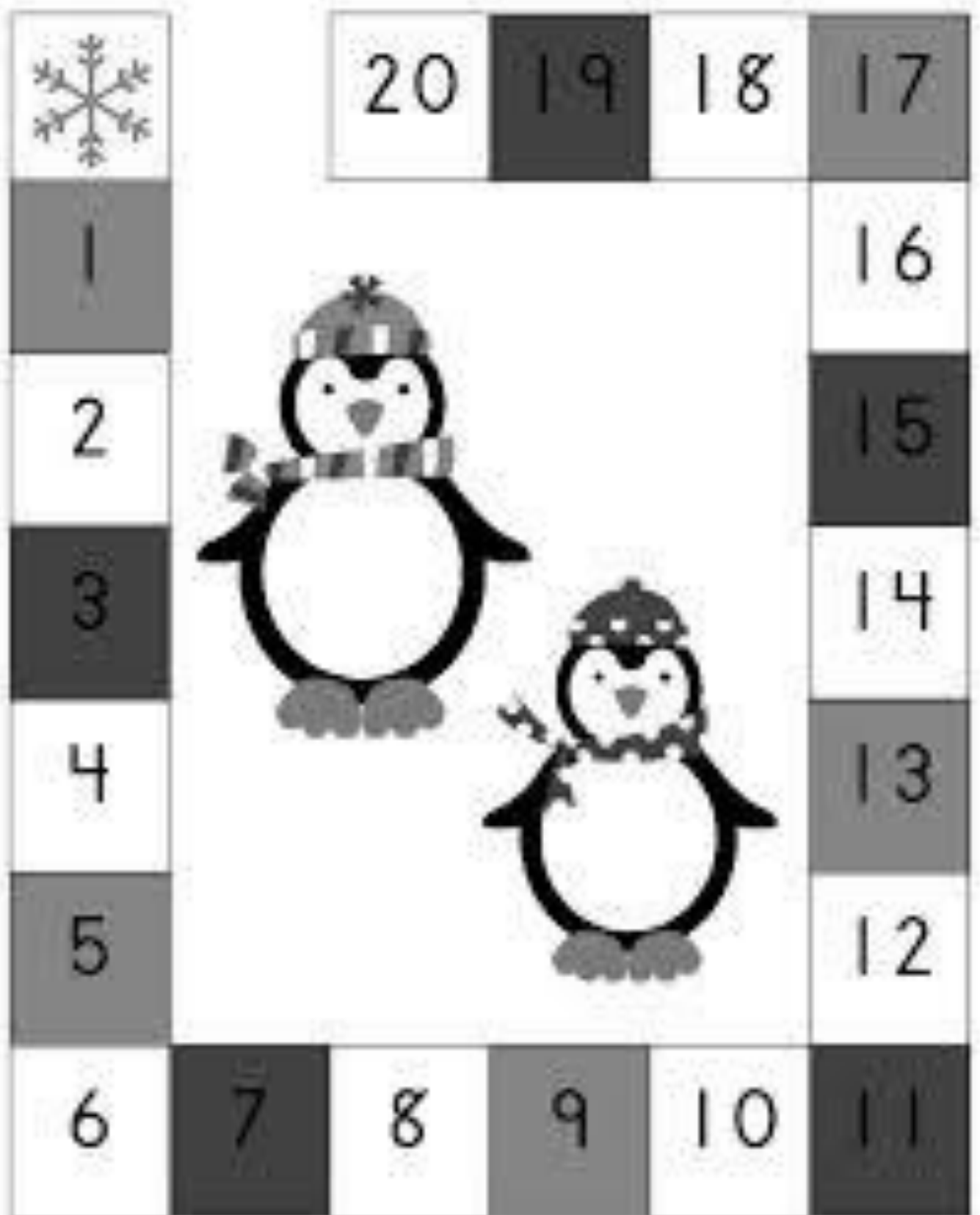
Addition and Subtraction

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.



Board Game 1 - 20



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.

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 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 to a group of counters (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

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 a number of 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.

